MONTROSE AREA JR/SR HIGH SCHOOL

COURSE SELECTION GUIDE 2020-2021 SCHOOL YEAR

MESSAGE TO STUDENTS AND PARENTS:

Course selection is something that many students look forward to each year with excitement, but for others it can be a source of anxiety. Society has placed a good deal of pressure on teenagers to quickly and definitively select a career path, and work tirelessly toward that singular goal. While choosing courses is important, and a good deal of thought and energy should go into each student's annual selection of courses, scheduling is just one small piece of the puzzle that impacts a student's academic pathway. The Bureau of Labor and Statistics reports that the average person will change careers 12 times. The Global Challenge Insight Report notes that 65% of students entering elementary school will end up in careers that don't yet exist. Therefore, skills like reading, writing, communicating, problem-solving and applying technology are critical, regardless of a student's career path, and these are skills that are emphasized in virtually every course offered in the Montrose Area School District. Students who challenge themselves to do their best, regardless of the courses they find themselves in, will certainly have more opportunities at their fingertips upon graduating. Taking a variety of courses aligned to individual strengths and interests will not only allow students to add skills to their toolkits, it will open their eyes to interests and opportunities they may not have otherwise even been aware of.

This course selection guide represents the current course offerings of the Montrose Area Junior/Senior High School. Please review the information provided in this booklet. Students and parents are encouraged to contact the Guidance Department to obtain additional information and to have any scheduling-related questions answered.

Scheduling decisions should be made after an examination of past achievement, ability level, career interests and any other relevant information which will assist in making an informed decision. In certain instances, interviews or a teacher's recommendation must accompany Honors, Advanced Placement and other advanced course requests. In other instances, success in a prerequisite course or on a related Keystone Exam will impact course availability. While courses should be scheduled as part of a continuing program rather than as individual courses taken in isolation, students are encouraged to explore options outside of their comfort zones. Every effort will be made to satisfy the scheduling needs of each student, but please be aware that scheduling conflicts will occur, and not all courses listed in this booklet may be offered, depending on student interest and scheduling restraints.

Public education is not a one-size-fits-all pursuit. The Montrose Area School District is committed to providing a challenging, well-rounded and appropriate education for each student. We will continue to revise our course offerings based on the needs of our students as they are readied for an ever-changing world. Don't hesitate to reach out with questions, comments or concerns. Thank you.

Eric C. Powers, MAHS Principal

GUIDANCE SERVICES

The Guidance Department at Montrose Area Junior/Senior High School endeavors to serve you by assisting in the development of your educational and vocational planning. Getting to know yourself (strengths, areas for growth, learning styles, interests, etc.) will help you to plan wisely throughout your academic career. This "self-understanding" is a process, which continues into adulthood. Through critical self-analysis, test interpretations, interest inventories, participation in extracurricular activities, vocational and educational information and counseling, the process of self-understanding evolves.

Specific courses are required for graduation. Students are required to take a full load of courses annually (7 plus physical education). There is a wide variety of subjects from which choices may be made. It is important that each student have a purpose in mind as he/she plans his/her high school schedule. The scheduling process used at Montrose Area Junior/Senior High School is designed to aid in that planning.

You and your parents are encouraged to meet with the counselors to discuss future plans. Call the Guidance Office at (570) 278-6253 to make an appointment.

School Counselors are assigned to students as follows:

Grades 11 & 12	Mary Beth Ohmnacht	570-278-6231	mbohmnacht@masd.info
Grades 9 & 10	Angela Nebzydoski	570-278-6233	anebzydoski@masd.info
Grades 7 & 8	Laurie Papi	570-278-6235	lpapi@masd.info

PROGRAM PLAN

Students are expected to plan a program of courses from grade 9 to graduation. Counselors will schedule conferences with students to help them develop this plan. Guidelines to be used in selecting courses are:

1. As challenging a program of study as can be handled successfully.
2. Courses which will be suitable for each students' needs and abilities.
3. Courses that align to each student's career interests.
4. Course load of seven full-credit courses plus partial-credit courses.
5. Minimum number of study halls.

THE THREE CURRICULUM TRACKS

1. College Preparatory - Preparation for attending a 2 or 4-year institution; selection of "C.P." courses where applicable and may include Honors and AP courses as well as a variety of electives.

2. Vocational Education - Participation in the SCCTC program (grades 10-12), Cooperative Education (grades 11-12), School-to-Work Programs (grades 11-12 when available); selection of "C.P." or "General" courses and "Specialized" electives; Preparation for advanced technical training and certification including but not limited to a Technical or Trade school.

3. General Education - Preparation to work in a variety of entry-level positions across multiple industries with minimal advanced training or certification required; selection of primarily "General" courses with a variety of electives.

COURSE DROP/ADD POLICY

Selecting, dropping and changing courses are important decisions which effect both a student's education and the entire school schedule due to variations in enrollment, class size and availability, etc.

1. Prior to the start of the school year, a limited number of schedule changes are possible, as students' needs or priorities change. Contact your Guidance Counselor to discuss the possibility of making a change.
2. After the start of the school year, the procedure to drop a course is as follows: Initially, a student must gain permission for a drop of class from the classroom teacher. The teacher will then take that concern to the guidance counselor for approval, who in turn will contact the principal. No changes will take place without prior approval from the teacher, guidance counselor, and principal.
3. **No students may enter a new course after the second week of the course unless approval is obtained from the guidance counselor, principal, and classroom teacher.** This does not apply to transfer students.

GRADE RECOMMENDATIONS

It is recommended that a grade of at least 71 be achieved in all academic courses before proceeding to the next sequential level of study. It is the counselor's responsibility to make students aware of this recommendation. **A 68 is the lowest passing grade**. Although a grade of 68-70 will allow credit toward the fulfillment of graduation requirements, it will result in the strong recommendation that the student discontinue study if in a sequential subject or repeat the course.

HONORS COURSES

Honors courses are available in Earth Science grade 9, English classes grades 9-11 and Social Studies classes grades 9-10. Student selection for honors courses will be made through teacher recommendation and careful analysis of students' current and past grades, particularly in the same content area. Attendance, standardized test scores and PVAAS projection data, as well as student interest in the content area and overall academic effort will also be analyzed. Generally speaking, prospective honors students are encouraged to have an attendance percentage of at least 90%, an "A" average in the content area and a competitive GPA and class rank. Preference is given to students projected to perform highest on future standardized exams. Honors courses will receive an additional weight of three percent on each student's grade point average.

DUAL ENROLLMENT

MAHS offers a Dual Enrollment program that allows high school Juniors and Seniors to earn college credit on-site by successfully completing specified high school courses. Students receive both secondary and postsecondary credit for their coursework. Currently, MASD has dual enrollment agreements with Keystone and Lackawanna Colleges. Courses currently available through Lackawanna are: Advanced Accounting, Algebra 3, Psychology, and CP Chemistry/Chem. Lab. Courses available through Keystone are: Advanced Accounting, AP Biology, AP Chemistry, AP European History, AP Government, AP Language and Comp, AP Literature and Comp, Calculus, Child Development, Digital Photography, Physics, Psychology, Spanish III and IV and Trigonometry/Advanced Math. Course offerings and the participating colleges are subject to change from year to year. A limited number of dual enrollment courses may also be taken on campus. Tuition is $100 per credit and scholarships are available through the Community Foundation.

ADVANCED PLACEMENT COURSES

The College Board's Advanced Placement Program enables willing and academically prepared students to pursue college-level studies - with the opportunity to earn college credit, advanced placement or both - while still in high school. A score of 3 or higher on an AP Exam can typically earn students college credit and/or placement into advanced courses in college. AP courses give students access to rigorous college-level work, but with the support of high school teachers and peers. Students build confidence and learn the essential time management and study skills needed for college and career success. Students have the opportunity to dig deeper into subjects that interest them, develop advanced research and communication skills, and learn to tap their creativity and their problem-solving and analytical skills to address course challenges. AP students learn what will be expected of them in college. Seven Advanced Placement Courses are currently offered (Biology, Chemistry, Calculus A/B, European History, U.S. Government, Language & Composition, Literature & Composition). Students with good attendance, strong academic backgrounds and an intrinsic desire to learn make quality AP candidates. Generally speaking, AP-level students rank in the top third of their class, earn "A's" in the specific content area they are pursuing AP coursework in, and have above-average attendance. Advanced Placement courses will receive an additional weight of six percent on each student's grade point average.

The enrollment process for Advanced Placement classes is detailed as follows:

- Students will express an interest in scheduling AP courses after being made aware of each course and its content and requirements.
- Students will be interviewed by the AP teacher. During the interview process the teachers will convey the AP philosophy and classroom guidelines and expectations, including work load and attendance requirements.
- The AP teacher will weigh recommendations from other teachers, past and current academic performance, attendance, standardized test scores and other appropriate data to make an objective and informed decision.
- After the interview process, the teachers will determine which AP course(s) will best fit each student.
- Students will be informed whether they were selected for each course.
- The AP teacher will share summer reading/course requirements before the end of the school year.

Early in the fall, the student and AP teacher will discuss whether or not taking the AP exam in the spring is in the student's best interest, and students will be required to commit to each exam in the fall, per College Board guidelines. Sitting for the exam is encouraged but not required. The cost of last year's AP exam was $94.00. Local "Community Foundation" funding may be available to offset all or a portion of this fee; that information will be shared when the school district is made aware of its availability or lack thereof.

EARLY ADMISSIONS POLICY

Students of the Montrose Area Junior/Senior High School may enter post high school institutions (either college or continuing education) prior to graduating from the Montrose Area Junior/Senior High School. This may be done on a full time or a part time basis at the expense of the parent/guardian. Contact the high school Principal at 570-278-6259 for further information.

PRE-SCHEDULING

Senior high students (grades 9 through 12) MUST fill their schedule with a MINIMUM of seven (7) full course periods per week plus physical education. **This is especially important considering the 25-credit requirement for graduation.**

There are 9 periods in the school day with 1 being used for lunch – leaving 8 periods for scheduling classes. One other period will be reserved for PE. In 9th grade, PE will usually be offset with a study hall 4 of 6 days; in 10th grade, PE will be offset by Health and Driver Education 4 of 6 days; in 11th and 12th grade, PE will be offset by a study hall, and possibly by a Chemistry lab or partial-credit course like Anatomy and Physiology or Advanced First Aid.

In the 9th grade year, all students must take Advanced Computer Applications and Family & Consumer Science, each for 90 days. This is a Graduation Requirement.

In the 10th grade year, all students must take Health and Driver Education, paired with Physical Education. This is a Graduation Requirement.

S.T.E.A.M. CREDIT REQUIREMENT

All students are required to take a 4th year Math or Science course. However, an approved STEAM course can be substituted. Approved STEAM courses are: A) One credit earned through any program at the SCCTC; B) Any full credit Computer Science Elective; C) Any Accounting Elective; D) Any Technology Education Elective with the exceptions of Introduction to Metal Technology and Introduction to Wood Technology; E) Any Music Elective with the exception of the first Concert Choir or Symphonic Band credits earned; F) Any Art Elective with the exception of Art 1; G) Environmental Science.

Course offerings may change based on teacher availability, student interest, scheduling conflicts, etc.

REQUIREMENTS FOR GRADUATION
HIGH SCHOOL CREDIT - GRADES 9 - 12

A minimum of 25.4 credits are required for graduation and they must be earned from 9th – 12th grade.

Subject Area	Units of Credit
English	4
Mathematics	3 / 4*
Science	3 / 4*
Social Studies	4
Physical Education	1.2
Health	.5
Computer	.5
Family & Consumer Science	.5
Driver Education	.2
STEAM Elective	1*
Elective Credits	7.5
Total credits required for graduation	**25.4**

*** Please refer to the STEAM requirement explanation above.**

Montrose Area Junior/Senior High School operates on a 180-day calendar of 30 6-day cycles. The 180-day calendar is also divided into four 45-day marking periods.

Course credit is computed on the following basis:

One full-year course meeting 180 days for 43 minutes per day = 129 hours = 1 credit.
One course meeting daily for ½ of the year, or 3 of 6 days for the full year = 64.5 hours = .5 credit

One course meeting for 2 of 6 days for the full year = 43 hours = .3 credit
One course meeting for 1 of 6 days for the full year = 21.5 hours = .2 credit

KEYSTONE EXAM AND GRADUATION PROJECT REQUIREMENTS

In order for a student to graduate from public high school, Pennsylvania Department of Education regulations require each student in Pennsylvania to demonstrate proficiency in a variety of skills and content areas by earning the minimum number of approved credits delineated on the prior page, as well as demonstrating proficiency on each of three Keystone Exams (Algebra, Biology, Literature). The Commonwealth of Pennsylvania has issued a moratorium on the "Keystone Exam" requirement through the 2020-2021 school year, and Act 158 of 2018 has made sweeping changes starting with the class of 2022. However, the Montrose Area School District has maintained the "Keystone Exam" requirement as one way to meet local graduation requisites. Each student is required to earn a rating of "Proficient" or "Advanced" on each Keystone Exam scheduled for that student. Students with Individualized Education Plans may, upon the recommendation of the District and in compliance with ESSA guidelines, be exempted from one or more of the exams based on the specific details of their learning needs. Those students may, as required by their I.E.P., be held to separate, clearly delineated standards. At this time, there are three Keystone Exams (Algebra, Biology, Literature). **Given that the Spring 2020 Keystone Exams were postponed, and the high degree of uncertainty regarding testing moving forward, it is likely that there will be additional changes to state and/or local graduation requirements.**

Students who are required to earn "Proficient" or "Advanced" ratings on one or more of the Keystone Exams but fail to do so by the end of their Junior year, or who are properly excused from the Keystone Exams by the administration for religious reasons, will be required to complete a comprehensive Graduation Project over the course of their senior year. In some circumstances, the Graduation Project may be started prior to the summer before students' senior year. In addition, accommodations may be made for students who move in to the district or who have specific learning needs.

Montrose Area High School upperclassmen have several options when selecting a Graduation Project. They can elect to complete a minimum of 20 hours of community service or job-shadowing under the supervision of a mentor. Students can also showcase their individual talents while giving back to the community by organizing and participating in public events ranging from concerts to athletic training sessions, fundraising benefits to art exhibits, and informational seminars to demonstrations of all kinds of special talents and abilities.

Students are required to complete the necessary hours, maintain a logbook, execute a concluding presentation and write a self-reflection essay. Satisfactory completion of all components of the Graduation Project, as evaluated by the appropriate rubrics and according to the expectations and timetable established by the administration and Graduation Project Coordinator is required for each member of the graduating class who does not meet the Keystone Exam requirement.

CORE COURSE DESCRIPTIONS

ENGLISH LANGUAGE ARTS

All students grade 9-12 must successfully complete course requirements for four core English classes; electives do not satisfy the English credit requirement.

ENGLISH - 010 - GRADE 7 - Seventh grade English focuses on communication skills ranging from informal to formal writing, active listening and public speaking. Grammar, academic vocabulary, collaboration and self-assessment lessons are integrated into writing and speaking activities. Close reading, annotation and critical-thinking skills are consistently applied throughout the course. Topics focus on life lessons, character development and essential questions from the Pearson myPerspectives resources.

READING - 013 - GRADE 7 - The goal of Seventh Grade Reading is to provide a student-centered learning environment that allows students to analyze text, cite evidence and respond critically to many different genres including multimedia. Students work through units centered around the themes of Turning Points, Facing Adversity, A Starry Home, Generations and People and The Planet. Vocabulary studies and literary techniques are embedded in these units. Students will take ownership of their learning through goal setting, reflection and collaborative activities that allow for whole class, small group and independent learning.

ENGLISH - 016 - GRADE 8 - Eighth grade ELA focuses on developing basic skills in reading, writing, speaking and listening using the Pearson myPerspectives resources. Students work through units centered around Rites of Passage, Human Intelligence and The Holocaust. Students work as a whole class, in small groups and individually to read and analyze a variety of texts including short stories, memoirs, news articles, plays and poetry. Vocabulary and grammar are studies inclusively in these units and supplemented as students illustrate need throughout the year. Assessments include traditional tests and quizzes, writing assignments, presentations and projects.

SUPPLEMENTAL READING - 011 - GRADE 8 (Meets 3-4 days out of the 6-day cycle) - All 8th grade students will be enrolled in this course, with the exception of students whose individual academic needs call for a different course of action. This course focuses on developing an active and understanding mind for evaluating and understanding literature. Utilizing a wide variety of shorter stories, emphasis is placed on the six elements found in a well-written story. Attention is also given to reading comprehension and personal reaction. Units on test-taking and study skills, as well as public speaking are also important parts of the course.

ENGLISH - 100 - GRADE 9 - Ninth grade English focuses on continued growth in the reading, writing, speaking, and listening skills using the Pearson myPerspectives program. Students will work through a variety of units that discuss diverse voices in literature, stories of survival, the writing of the Civil Rights era, an introduction to Shakespeare, and the study of post-apocalyptic dystopian writing. Essay and narrative writing will also be completed in addition to the analysis of literature. Vocabulary and grammar lessons are included throughout these units. Assessments include tests, quizzes, writing assignments, presentations, and projects.

HONORS ENGLISH - 101 - GRADE 9 - The goal of honors English 9 is to provide an even more challenging instructional environment that allows students with advanced skills to pursue the ninth grade English curriculum in greater depth. Students can expect this class to be fast-paced, reading

and writing intensive, and requiring them to use higher-order thinking skills. Honors English 9 will extensively utilize the Pearson myPerspectives program to work through a variety of units, as well as the study of grammar and vocabulary. Essay and narrative writing will be completed in addition to the analysis of literature. Students will complete assessments such as tests, quizzes, writing assignments, presentations, and projects. Please take note of "Honors Courses" information found on page 3.

C.P. ENGLISH - 103 - GRADE 10 - The tenth-year English curriculum enlists the four communication skills of reading, writing, listening and speaking. The study of composition is emphasized through the teaching of writing as a step-by-step process. Students will practice research skills and presentation of research according to MLA style. Students will also read a variety of major works, often relating to content and themes being explored in other units or courses of study. Novels to be read include *Frankenstein*, *The Scarlet Letter* and *To Kill a Mockingbird*. Students will take the Keystone Literature Exam at the conclusion of this course.

GENERAL ENGLISH - 105 - GRADE 10 - The tenth-year English curriculum enlists the four communication skills of reading, writing, listening and speaking. Emphasis will be placed on oral reading, vocabulary, writing, and public speaking skills. Instruction in MLA style will be continued from a 9th grade focusing on a basic break down of research skills, including internal citation. Students will take the Keystone Literature Exam at the conclusion of this course.

HONORS ENGLISH - 104 - GRADE 10 - This reading and writing intensive course explores the grade 10 English curriculum at a faster pace and in greater depth. It is designed to prepare students for the rigor of Advanced Placement courses. Additional texts and activities are utilized, promoting higher-order thinking and greater emphasis on public speaking, interpersonal communication and more sophisticated writing. Novels to be read include *Frankenstein*, *The Scarlet Letter* and *To Kill a Mockingbird*. Students will take the Keystone Literature Exam at the conclusion of this course. Please take note of "Honors Courses" information found on page 3.

C.P. ENGLISH - 106 - GRADE 11 - A survey of American literature forms the basis of this year's work. Detailed attention is focused on comprehension, interpretation, evaluation, and appreciation of what is read. Vocabulary studies, literary techniques, text annotation, and development of critical facilities all open the way to mastery of college preparatory work. Composition skills and a general review of mechanics are covered. Students will also complete an MLA research paper.

ENGLISH - 107 - GRADE 11 - A survey of American literature forms the basis of this year's work. Emphasis is placed on definition and recognition of literary terms, incidental vocabulary, spelling, oral reading, and literary genres. Students will also complete an MLA research paper.

HONORS ENGLISH - 112 - GRADE 11 - This course covers close readings of novels, excerpts, poems and plays. Literary analysis tests assess progress. Critical thinking skills are developed via in-depth discussion and debate, based on extensive reading and writing assignments. Word studies include vocabulary and specific literary terminology. Honors English is for students who anticipate taking an A.P. English course as a senior. Please take note of "Honors Courses" information found on page 3. This Honors course can be requested as an elective for Juniors who are taking AP Language and Composition and who intend to take AP Literature and Composition as Seniors.

C.P. ENGLISH - 109 - GRADE 12 - This course includes a survey of English and World literature beginning in ancient times and continuing to modern times; Readings will include, but are not limited to, *Beowulf*, *Macbeth*, *1984*, and *Into The Wild.* Romanticism, Realism, and Naturalism will

also be studied. Emphasis is placed literary analysis as well as composition skills, including sentence structure, paragraphing, word choice, mechanics, and vocabulary development.

ENGLISH - 110 - GRADE 12 - This course includes a survey of English literature. Readings will include, but are not limited to, *Beowulf* and *Macbeth* as well as non-fiction selections like *Into the Wild* and *The Story of a Shipwrecked Sailor*. Emphasis is placed on composition skills, including sentence structure, paragraphing, word choice, mechanics, and vocabulary development.

A.P. ENGLISH LANGUAGE AND COMPOSITION - 111 - GRADES 11/12 - This course aligns to an introductory college-level rhetoric and writing curriculum, which requires students to develop evidence-based analytic and argumentative essays that proceed through several stages or drafts. Students evaluate, synthesize, and cite research to support their arguments. Throughout the course, students develop a personal style by making appropriate grammatical choices. Additionally, students read and analyze the rhetorical elements and their effects in non-fiction texts, including graphic images as forms of text, from many disciplines and historical periods. This AP English course is geared toward students who plan to take the AP Examination at the end of the year. Students who seek enrollment will be required to complete a summer assignment. Please take note of "Advanced Placement Courses" information found on page 4. *Dual Enrollment

A.P. ENGLISH LITERATURE AND COMPOSITION - 113 - GRADE 12 - The AP English Literature and Composition course aligns to an introductory college-level literary analysis course. It engages students in the close reading and critical analysis of imaginative literature to deepen their understanding of the ways writers use language to provide both meaning and pleasure. As they read, students consider a work's structure, style and themes, as well as the author's use of figurative language imagery, symbolism and tone. Writing assignments may include expository, analytical and argumentative essays that require students to analyze, interpret, compare or contrast literary works. The course is geared toward students who plan to take the AP examination at the end of the year. Students who seek enrollment will be required to complete a summer assignment. Please take note of "Advanced Placement Courses" information found on page 4. *Dual Enrollment

PUBLIC SPEAKING AND DRAMA - 118 - GRADES 9/10/11/12 - This course is for students looking to develop their skills in front of an audience. The goal is to prepare students to succeed in the public speaking classes require in some colleges. It is a project-based class, with students developing speeches, presentations, and scenes/monologues both in written form and then shared in front of classmates. While most of the work is independent, there are a few group projects as well. The class will be focused on the qualities of a good speech and its presentation as well as building confidence and on-your-feet/improvisational thinking skills. The course DOES NOT reduce the English course requirement.

JOURNALISM - 115 - GRADES 9/10/11/12 - This course is designed for students who are creative, like to write, are interested in improving their writing skills and who have an interest in promoting their peers and the school district. Specific areas to be emphasized include media law and ethics, researching, interviewing, news and feature writing, sports writing, photography, layout and design, and copyediting. Through the production of the school newspaper, the *Meteor Chronicle*, students will learn to develop stories, meet deadlines, and manage time. Students will be encouraged to partner with and contribute to other local publications, and web-based content will also be explored. Students will also learn the importance of individual responsibility as well as teamwork. Time after school may be required to meet submission and production deadlines. The course DOES NOT reduce the English course requirement.

ADVANCED JOURNALISM - 114 - GRADES 10/11/12 - This course is for students who have successfully completed Journalism. Advanced Journalism builds on the skills learned in Journalism, with a focus on more sophisticated writing, in-depth analysis and peer editing. Students will continue to work on the *Meteor Chronicle*, but advanced students will be expected to develop more challenging stories and some advanced students will also serve in editorial positions on the newspaper staff, thereby developing leadership skills. Students will be encouraged to partner with and contribute to other local publications, and web-based content will also be explored. Time after school will be required to meet submission and production deadlines. The course DOES NOT reduce the English course requirement.

ESL PROGRAM – **(must qualify for program)** The English as a Second Language Program is to develop academic literacy and oral skills through a reading, writing, speaking and listening program. The students read, write and discuss the content of their regular education classes. The students are learning language through content. The goal of the program is to help the students develop critical thinking skills as well as written and oral communication skills.

SEE COURSE SEQUENCE CHART IN THE BACK OF THE COURSE SELECTION GUIDE.

MATHEMATICS

All students grade 9-12 must successfully complete course requirements in three different math courses. In addition, all students are required to take a 4th year Math or Science course. However, an approved STEAM course can be substituted. See page 5 for details.

PRE-ALGEBRA - 029 - GRADE 7 - This course is reserved for 7th grade students who have met the district-selected criteria, as an opportunity to prepare students to take Algebra I in 8th grade. It will be an accelerated course of both Grade 7 and 8 Mathematics content as described below. **Due to the Spring 2020 school closure, this course will not be offered for the 2020-21 school year**.

MATHEMATICS - 030 - GRADE 7 - This course presents mathematics as a cumulative, unified subject directly relevant to real world connections. It progressively develops all important mathematics topics, including whole numbers, fractions, decimals, integers, measurement, proportion, percent, number theory, statistics, probability, geometry, logical reasoning and pre-algebra.

SUPPLEMENTAL MATH - GRADE 7 - Meets 3-4 days out of the 6-day cycle - This course is designed to assist students in gaining proficiency of the 7th grade Pennsylvania Core Standards. All 7th grade students will be enrolled in this course, with the exception of students whose individual academic needs call for a different course of action. An emphasis on using web-based resources to promote differentiation and personal growth will be stressed. Topics to be covered include Numbers and Operations, Algebraic Concepts, Geometry, and Data Analysis and Probability.

MATHEMATICS - 033 - GRADE 8 - This course is an introduction to the concepts of Algebra thus acting as a pre-algebra course in nature. Students will understand and apply congruence, similarity, and transformations of geometric figures using various tools. Students will solve linear equations whose solutions require expanding expressions using the distributive property. Course offers operations with numbers expressed in scientific notation. Students will understand and apply the Pythagorean Theorem. Course will apply the concepts of volume of cylinders, cones, and spheres to solve real-world and mathematical problems. Students will apply concepts of radicals and

integer exponents to generate equivalent expressions. This course will help students understand the connection between proportional relationships, lines and linear equations with an emphasis on analyzing, graphing, creating, and solving linear equations. Pairs of linear equations will be solved using the graphing method. Students will define, evaluate, model relationship between quantities, and compare functions. Students will review all operations using rational numbers and distinguish rational numbers from irrational numbers using their properties.

ALGEBRA I - 301 - The course begins with a fast-paced review of real numbers, algebraic notation, and simple linear equations. Algorithms for more complex linear equations are added. The course then develops graphing techniques for those same equations and inequalities in two unknowns. The second half of the course covers functions, systems of equations, exponents, radicals, polynomials, and introduction to factoring. Students will take the Keystone Algebra Exam at the conclusion of this course.

ALGEBRA IA - 300 - This is the first of two consecutive courses which each the concepts of the Algebra I course. This course is designed for students who need Algebra I concepts but taught at a slower pace. Topics covered are real numbers, algebraic notation and simple linear equations and inequalities. Algorithms for more complex linear equations are added. The course then develops graphing techniques for those same equations and inequalities in two unknowns. Systems of linear equations will also be covered.

ALGEBRA IB - 302- This course will follow Algebra IA and covers the remaining topics from the Algebra I course not covered in Algebra IA. The course begins with a fast-paced review of Algebra IA topics. The course then covers functions, exponents, radicals, statistics and probability, polynomials and an introduction to factoring. Students will take the Keystone Algebra Exam at the conclusion of this course.

ALGEBRA 2 - 304 - This course will follow Algebra IB or Algebra I and is for the student needing the second course of Algebra at a slower pace. The course begins with a review of equations, inequalities, and absolute value, then extends to linear, polynomials and quadratic relations and functions. Rational expressions as well as systems of linear equations and their applications are also covered.

ALGEBRA II - 305 - This course begins with a review of equations, inequalities, and absolute value, then extends to linear, polynomial and quadratic relations and functions. Rational expressions as well as system of linear equations and their applications are also covered. Earning "Proficient" or "Advanced" on the Keystone Algebra Exam is a prerequisite for taking Algebra II.

ALGEBRA 3 AND BASIC TRIG - 306 - This is the sequential course for Algebra 2 and begins with the linear equations and inequalities, which leads into quadratic, exponential and logarithmic functions. Trigonometry units follow with functions that involve Right Triangle Trigonometry and graphing Trigonometric Functions. Trigonometric identities and oblique triangle concepts are developed. Continuing development of problem-solving skills and real-world connections are emphasized throughout the course. The conclusion of the course involves Matrices, Analytic Geometry, and Probability. *Dual Enrollment

KEYSTONE ALGEBRA/APPLIED GEOMETRY - 314 - GRADE 11 - A required course for any 11th grade student who did not earn a proficient or advanced score on the Algebra Keystone Exam. The first half of the year will review Algebra I concepts assessed on the Algebra Keystone Exam. The second half of the year will cover basic Geometry concepts and their applications.

GEOMETRY - 303 - Proofs of theorems and applications of these theorems constitute the main topics covered in geometry. Traditional topics of congruency, similarity, polygons, coordinate geometry, and right triangles are introduced and developed. Areas and volumes are calculated. Constructions of segments, angles and polygons are included along with real world connections.

INFORMAL GEOMETRY - 307 - This course is to follow Algebra 2 or Algebra II. This course may also follow Algebra 1B if the student has scored proficient or advanced on the Algebra I Keystone Exam. The geometric concepts developed in this course include lines, quadrilaterals, similarity, circles, and right triangles. The basic trigonometric functions will be defined and developed for right triangles. Areas and volumes of spatial figures will be calculated. Graphs in the coordinate plane complete the course. There is a strong emphasis in this course on developing problem-solving skills and real-world connections.

TRIGONOMETRY/ADVANCED MATH - 308 - During the first semester, trigonometry is developed in both application and theoretical situations. The Advanced Mathematics topics are a continuation of algebra topics, which include equation theory, matrices, sequences and series, probability, logarithms and exponents, and an introduction to pre-calculus topics. Graphing calculators are provided for use within the classroom. *Dual Enrollment

CALCULUS - 309 - Any student wishing to take Calculus must have teacher recommendation and maintain at least an 84% average in Trigonometry/Advanced Mathematics. After a review of functions and the Cartesian plane, the limit concept is introduced and developed. Derivatives and their application follow, with graphing concepts emphasized. An introduction to integration and its application will complete the course. A graphing calculator will be provided for student use throughout the course. *Dual Enrollment

A.P. CALCULUS A/B - 310 - The approved College Board syllabus for the AP Calculus A/B exam will be followed in this course. It allows for the necessary topics to be completed prior to the Advanced Placement exam in May. The pace for the course will be accelerated compared to Calculus. Preparation on test questions comparable to the actual Advanced Placement exam will be part of the course. A graphing calculator will be provided for student use throughout the course. The course is designed for students intending to take the AP exam at the end of the school year. Students who seek enrollment may be required to complete a summer assignment. Please take note of "Advanced Placement Courses" information found on page 4. *Dual Enrollment

STATISTICS - 311 - This is a senior math elective for students who have finished Trig/Advanced Math. The course includes measures of central tendency, probability, frequency, variability and data analysis, including various plots and graphs. Numerous real-world connections will be made. **FOR THE 2020-21 SCHOOL YEAR, THE TRIG/ADVANCED MATH REQUIREMENT WILL BE WAIVED WITH INSTRUCTOR PERMISSION.**

SEE COURSE SEQUENCE CHART IN THE BACK OF THE COURSE SELECTION GUIDE.

SCIENCE

All students grade 9-12 must successfully complete requirements in Earth Science, Biology and a third science including Basic or C.P. Chemistry, Physics, or Advanced Physical Science. In addition, all students are required to take a 4th year Math or Science course. However, an approved STEAM course can be substituted. See page 5 for details.

LIFE SCIENCE - 040 - GRADE 7 - This course provides the student with grade-appropriate activities and learning experiences which will prepare the student for more advanced learning in the Biological Sciences offered later in the science program. Major topics covered include cell structure and function, heredity, taxonomy, changes in populations and ecology.

PHYSICAL SCIENCE - 043 - GRADE 8 - This course is designed to provide students with a solid foundation regarding the nature of science, physics and chemistry. The topics and laboratory experience provided are geared to the junior high school level.

EARTH SCIENCE - 400 - GRADE 9 - This course covers various topics including astronomy, meteorology, Earth's cycles, forces within plate tectonics and mountain building, structure of the Earth, energy, geologic history and Earth resources. Projects and activities will engage students in an active classroom environment.

HONORS EARTH AND SPACE SCIENCE - 410 - GRADE 9 – This course is designed for students interested in an experience that is faster paced, more challenging, covers topics in greater depth, and includes a greater emphasis on reading and writing skills. This course covers topics relating to the composition of Earth, surface processes on Earth, meteorology, the atmosphere and the oceans, plate tectonics and volcanism, geologic time, resources and the environment, our solar system and universe. Please take note of "Honors Courses" information found on page 3.

BIOLOGY - 402 - GRADE 10 - This course covers the same material listed for College Prep Biology, but the curriculum is designed for the student who does not plan on attending a 4-year college. Students will take the Keystone Biology Exam at the conclusion of this course.

C.P. BIOLOGY - 403 - GRADE 10 - This course is designed to give college-bound students a greater understanding of the biological world. The curriculum is detailed and the student is responsible for daily review of classroom topics. Classroom work will be supplemented with readings and laboratories. Topics taught include: biochemistry, cellular energy, genetics, evolution and animal biology. Students will take the Keystone Biology Exam at the conclusion of this course.

APPLIED CHEMISTRY - 407 - GRADES 11/12 - This course is designed to introduce students to chemical behavior in everyday life. It is designed for students less likely to pursue post-graduate education in a traditional 4-year college setting but lends itself well to post-graduate studies and training in health and human services, agriculture, environmental studies and a variety of industries requiring testing and laboratory support. Applied Chemistry will give students a better understanding of matter and its composition, structure, properties and changes. Concepts covered in this class are similar to those covered in C.P. Chemistry with simplified mathematics and modified lab experiments. Topics include measurement, properties of matter, atomic structure, the periodic table, chemical bonding, chemical reactions, gas laws and nuclear chemistry.

C.P. CHEMISTRY - 404 - GRADES 11/12 - This course is designed not only to give students a deeper understanding of the physical world around them, but also to help them become better problem solvers. The following areas are studied in depth: structures and bonding, states of matter,

chemical reactions and physical changes, types of compounds, and many mathematical relationships. Students view many demonstrations and perform many hands-on experiments throughout the year to supplement practical and technical learning. *Dual Enrollment

ADVANCED PLACEMENT CHEMISTRY - 409 - GRADE 12 - This course provides the opportunity for secondary school students to experience and perhaps receive college credits to college level chemistry. This is a course that demands a lot from students. It requires students to have one year of college prep chemistry. Students will be involved in lecture and also in as much laboratory work as possible, as lab is an integral part of college chemistry. AP Chemistry will build on concepts taught in first year chemistry. The students will accumulate facts that enable them to comprehend the development of chemical principals, utilize these principals, and relate to all chemical matters. Students who seek enrollment will be required to complete a summer assignment. Please take note of "Advanced Placement Courses" information found on page 4. *Dual Enrollment

PHYSICS - 405 - GRADES 11/12 - This course is a laboratory science with emphasis both on theory and application in mechanics, heat, light, sound, electricity and modern physics. Since Physics is a mathematical science, students are expected to have completed Algebra II prior to taking this course. *Dual Enrollment

A.P. BIOLOGY - 406 - GRADES 11/12 - This course is designed to be the equivalent of an introductory biology course at the college level. Topics covered include chemistry of life, cells, cell energetics, heredity, genetics, evolutionary biology, structure and function of plants and animals, and ecology. AP Biology is a rigorous course that places greater expectations on the student and holds the student to a higher standard. A laboratory component of the course will emphasize concepts covered in lecture, readings, and discussion. Students who seek enrollment will be required to complete a summer assignment. Please take note of "Advanced Placement Courses" information found on page 4. *Dual Enrollment

PRACTICAL PHYSICAL SCIENCE - 408 - GRADES 11/12 - This course includes a half-year of instruction in basic physics concepts and a half-year of instruction in alternative energy technologies. Physics content includes the topics of measurement, motion, force, torque, rotation, momentum, work, energy, power, machines, thermodynamics, waves, sound, light, optical instruments, and electricity. Topics in renewable energy technologies may include photovoltaic, solar thermal, geothermal, micro-hydro, wind, wave and tidal energies, and natural gas technology. Much of the content relates very well to in-demand careers in our region, SCCTC training and content, and hands-on learning. It is designed for students less likely to pursue post-graduate education in a traditional 4-year college setting but would be beneficial for students interested in attending a technical or trade school, or those interested in pursuing a 2-year degree.

ENVIRONMENTAL SCIENCE - 401 - GRADES 11/12 - Environmental Science is an elective course open to Juniors and Seniors. This course is designed to cover various topics including but not limited to forestry, wildlife, aquatic ecology, and soil/land use. Ecology, conservation, management and stewardship, regulations and identification will be emphasized for each unit of study. Practical application includes identification of trees, birds, mammals, reptiles and ecosystems found in Pennsylvania, as well as an emphasis on protected species and ecosystems and understanding soil properties and analysis. Participation in the Envirothon Club will be strongly encouraged. Prerequisite courses are Earth Science and Biology. Environmental Science is considered a STEAM elective but will not replace the requirement to earn credit for a "3rd" Science course.

SEE COURSE SEQUENCE CHART IN THE BACK OF THE COURSE SELECTION GUIDE.

SOCIAL STUDIES

All students grade 9-12 must successfully complete course requirements for four core Social Studies classes.

THE ANCIENT WORLD - 050 - GRADE 7 - This course is a study of the development of man and the growth of civilization up to the Age of Exploration. The ancient world of Greece and Rome are studied up to the discovery of the New World.

U.S. HISTORY I - 053 - GRADE 8 - The objective of the 8th grade Cultures program is for the student to achieve an understanding of American heritage from colonization to the mid-19th century. Significant time is spent in the study of Pennsylvania's place in the growth of America and the origins of American government.

GEOGRAPHY - 056 - GRADE 8 - The emphasis of this course is to develop the student's understanding of the relationship between physical geography and human geography. Included in this course of study will be the refinement of basic geographical skills.

U.S. HISTORY II - 501 - GRADE 9 - The objective of the 9th grade Cultures program is for the student to achieve an understanding of American heritage from the early 19th century through World War I. Significant time is spent studying Pennsylvania's role in the development and growth of America.

HONORS U.S. HISTORY II - 502-GRADE 9 - The 9th grade Honors course provides a challenging and comprehensive analysis of American heritage from the early 19th century through World War I. Significant time is spent in the study of Pennsylvania's place in the development of America. This program differs from the U. S. History II course in that it provides a more rigorous and in-depth examination of each theme, with an increased focus on higher-order thinking skills including a more intensive reading and writing approach to the subject matter. Please take note of "Honors Courses" information found on page 3.

U.S. HISTORY III - 504 - GRADE 10 - This course stresses American history from the 1920's through the 21st century. Cultural and political themes are emphasized, as well as civil rights and relevant current events through examination of the growth and development of the modern United States.

HONORS U.S. HISTORY III - 505 - GRADE 10 - This course is reading and writing intensive and is recommended for students considering taking AP courses. It offers an in-depth exploration of American History from the 1920's through the 21st Century. Cultural and political themes are emphasized, as well as civil rights and current events relevant to the growth and development of the modern United States. Please take note of "Honors Courses" information found on page 3.

C.P. MODERN WORLD HISTORY - 506 - GRADE 11 - This course will be a survey history of the modern world, exclusive of the United States. The period of time covered will be from the Renaissance through the present time. Events will be examined through a European perspective but will include global issues. The C.P. course will involve more independent work and focus on better preparing students for college acceptance. This class will place an emphasis on higher levels of reading, include more intensive writing and facilitate the development of higher-level thinking skills.

MODERN WORLD HISTORY - 507 - GRADE 11- This course will be a survey history of the modern world, exclusive of the United States. The period of time covered will be from the

Renaissance through the present time. Events will be examined through a European perspective but will include global issues.

A.P. EUROPEAN HISTORY - 517 - GRADE 11 - An advanced course in European Cultures taught on a college freshman level to prepare students for the A.P. Test for college credit. In AP European History students investigate significant events, individuals, developments, and processes in four historical periods from approximately 1450 to the present. This course will be taken in place of Modern World History. Students who seek enrollment will be required to complete a summer assignment. Please take note of "Advanced Placement Courses" information found on page 4. *Dual Enrollment

AMERICAN GOVERNMENT - 509 - C.P.- GRADE 12 - This course in contemporary American culture takes a political approach to analyzing current American life and government for students on the path to higher education. Emphasis is on analytical, research and communication skills. Content focuses on the Constitutional structure of American government, and processes of American politics, both historically and through relevant contemporary issues and current events.

AMERICAN GOVERNMENT - 510 - REGULAR - GRADE 12 - This course in contemporary American culture takes a political approach to analyzing current American life and government. The course studies the structure and process of American government and politics, both historically and through relevant contemporary issues and current events.

A.P. U.S. GOVERNMENT AND POLITICS - 518 - GRADE 12 - This advanced course in U.S. Government prepares the student for the A.P. American Government test for college credit. The AP U.S. Government and Politics course involves the study of democratic ideas, balance of power, and tension between the practical and the ideal in national policymaking. Students analyze and discuss the importance of various constitutional principles, rights and procedures, institutions, and political processes that impact us as citizens. This course will be taken in place of C.P. U.S. Government. Students who seek enrollment will be required to complete a summer assignment. Please take note of "Advanced Placement Courses" information found on page 4. *Dual Enrollment

PSYCHOLOGY - 515 - GRADES 11/12 - This course is designed to mirror the college level Introduction to Psychology courses required in most fields of study and is offered as a dual-enrollment opportunity. The course enhances the student's understanding of human development and behavior. Content includes a study of the foundations of the field through historical analysis, application to current events and examinations of multiple perspectives on a variety of psychological issues and theories. The course DOES NOT reduce the Social Studies requirement. *Dual Enrollment

SEE COURSE SEQUENCE CHART IN THE BACK OF THE COURSE SELECTION GUIDE.

SPECIALTY COURSE DESCRIPTIONS

ART

ART - 019 - GRADE 7 - A 45-day course that explores various techniques involved in the production of art in a two or three-dimensional context.

ART 1 - 850 - GRADES 9/10/11/12 - The first year of the curriculum will consist of work based on the Elements of Art and the Principles of Design. A wide variety of materials will be used including both two- and three-dimensional media. Upon completion of this course, the student will have a general knowledge of art and be prepared to pursue advanced level art courses in the curriculum.

ART 2 - 851 - GRADES 10/11/12 - (Pre-requisite Art 1) The second year of the curriculum is designed to look at art and the production of art in a more in-depth way. Both two- and three-dimensional areas will be explored, and a variety of media will be used. Possible choices for class work may include drawing, painting, printing, ceramics, sculpture and mixed media.

ART 3 - 852 - GRADES 11/12 - (Pre-requisite Art 2) During the third year of the curriculum, students will gain a more advanced understanding of techniques, processes and concepts using a variety of media. They will also be expected to take the initiative to start developing their own personal style. Drawing, painting, printing, ceramics, sculpture and mixed media may be included for class work.

ART 4 - 853 - GRADE 12 - (Pre-requisite Art 3) The final year of the curriculum is designed to allow the experienced art student to investigate specific areas of art in depth. All class work is designed to motivate students toward complex problem solving in order to create highly advanced work. Coursework may include drawing, painting, printing, ceramics, sculpture and mixed media.

CONTEMPORARY CRAFTS - 855 - GRADES 10/11/12 - (Pre-requisite Art 1) This hands-on course is designed to give students the opportunity to investigate new interpretations of traditional craft techniques and style. Students will build on a wide range of art concepts and develop skills in a variety of techniques while exploring a diverse range of materials including clay, textiles, glass, paper and more. Class size limited to 16 students.

INTRODUCTION TO JEWELRY AND METALSMITHING - 856 - GRADES 10/11/12 - (Pre-requisite Art 1) - This is a course in three-dimensional design which develops an understanding of the art elements and principles. In this course students will acquire working knowledge of jewelry and fabrication skills through basic and advanced jewelry and metalsmithing techniques. Techniques taught in this course include cold and hot connections, sawing, piercing, soldering, basic stone setting, forming, enameling, fire painting, and casting. This course must be taken in conjunction with Introduction to Ceramics and is a ½ credit course.

INTRODUCTION TO CERAMICS - 857 - GRADES 10/11/12 - (Pre-requisite Art 1) - This is an introductory course for students who wish to explore the art of Ceramics. Emphasis will be placed on the design elements: line, shape, texture, form and color. The primary focus will be on hand building techniques (pinch, coil and slab) but students will also be introduced to the potter's wheel and various other sculptural techniques to create both functional and non-functional forms. Because of the nature of the materials used in this course, all clay work must be done in class. This course must be taken in conjunction with Introduction to Jewelry and Metalsmithing and is a ½ credit course.

BUSINESS

All students taking Business Courses are encouraged to participate in the Future Business Leaders of America (FBLA) Club. FBLA offers students the opportunity to extend their learning outside the classroom through competition, community service, application of skills, and various professional activities. Any student wishing to join FBLA should listen to announcements in the fall regarding meeting times and the application process.

9th GRADE PERSONAL FINANCE– 413 - *Rotation* - This course meets for 60 days to provide students with an introduction to financial topics that are key to successful independent living. Topics include saving, budgeting, credit, debt, education, careers, investing, insurance, identity theft, global economics, and consumerism (9th grade Personal Finance is a graduation requirement).

ECONOMICS AND PERSONAL FINANCE – 217 – GRADES 10/11/12
This course replaces Introduction to Business and has four major areas. Part 1 focuses on the basic concepts of economics, including incentives, scarcity, opportunity cost, marginalism, trade, demand, supply, and pricing. Part 2 includes property rights, the competitive process, allocation of capital, monetary stability, low taxes, and international trade. Part 3 examines the role of government, the operation of the political process, and what might be done to improve the process. Part 4 applies the tools of economics to personal finance; savings, budgeting, debt, consumer awareness, bargain shopping investments, insurance, choosing a career, taxes and giving are examined. This course will improve students' understanding of key elements of economics and personal finance and help them to make better financial choices leading to a more fulfilling life.

ACCOUNTING I - 205 - GRADES 9/10/11/12 - This is an entry-level course for vocational record keeping. The course begins with the basics of accounting and covers the total financial period. This includes all steps in the accounting cycle: opening, recording entries, posting and closing. Accounting I will study the needs of service and merchandising businesses.

ADVANCED ACCOUNTING - 206 - GRADES 10/11/12 - This course is designed to be the equivalent of a first-year college accounting course and provides students with the opportunity to earn college credit in Accounting. The following topics are covered in depth: analyzing transactions, accounting systems, preparing and analyzing financial statements, inventories, cash controls, current liabilities, payroll, long-term liabilities, investments, and cash flows. Students will examine accounting practices for proprietorships, partnerships, and corporations. Prerequisite: Successful completion of Accounting I with a final grade of 90% or higher. *Dual Enrollment

MARKETING - 208 - GRADES 10/11/12 - This course exposes students to marketing concepts from the viewpoints of both a consumer and a business person. Students will use the Marketing Mix elements of product, price, place, and promotion to explore the ways businesses profitably develop products and services to meet consumer wants and needs. Topics include promotion, professional sales, branding and new product development, pricing strategies, marketing research, supply chain management and social media marketing. THIS COURSE IS OFFERED EVERY OTHER YEAR. **THIS COURSE WILL BE OFFERED FOR THE 2021-2022 SCHOOL YEAR.**

BUSINESS LAW - 215 - GRADES 10/11/12 - This class is designed to introduce the student to the study of law through a brief look at how law developed, the legal system in the United States, the functions of the federal and state court systems, and civil and criminal law. Additional topics typically include computer law, financial crimes, legal careers, international law, and contracts. This course will help students become aware of their rights and responsibilities under the laws so they can

function as responsible citizens in their personal and professional lives. THIS COURSE IS OFFERED EVERY OTHER YEAR. **THIS COURSE WILL BE OFFERED FOR THE 2021-2022 SCHOOL YEAR.**

ENTREPRENEURSHIP - 210 - GRADES 10/11/12 - This class will offer students the information and decision-making skills necessary to develop a business plan, start a small business and make it grow. It also benefits students who do not start or run their own businesses. Students will look at their role as consumers. Additional topics include HR principles & policies, legal aspects of business management, employee relations, and business leadership. THIS COURSE IS OFFERED EVERY OTHER YEAR. **THIS COURSE WILL BE OFFERED FOR THE 2020-2021 SCHOOL YEAR.**

YEARBOOK JOURNALISM - 116 - GRADES 9/10/11/12 - This course develops skills in finance, interviewing, reporting, writing, layout and design, computers, photography and more. Participation in this course will require attendance at a variety of school events during and outside of the school day, as well as additional layout and design work after school as required to meet submission and production deadlines. Creativity, attention-to-detail, teamwork and collaboration will be emphasized as classmates work together in and out of school to produce the ACTA. Successful completion of "Foundations of Digital Photography" is encouraged.

COMPUTER SCIENCE

7th GRADE COMPUTERS - 050 - *Rotation* - This course meets for 45 days. This is an introductory course in Web 2.0 Tools. This course is designed to reinforce keyboarding skills and explore different websites for educational use. Students will complete hands-on activities through guided practice (Required for all 7th grade students).

8th GRADE COMPUTER APPLICATIONS - 056 - *Rotation* - This course meets for 45 days. This is an introductory course in word processing, spreadsheets, and presentation software. This course is designed to acquaint students with the basic computer concepts and applications, along with online review tools (Required for all 8th grade students).

9th GRADE ADVANCED COMPUTER APPLICATIONS - 413 - *Rotation* - This course meets for 60 days. This course is designed for students who have completed the 8th grade Computer Applications class and want to advance in word processing, publishing, spreadsheets, and presentation software. Students will demonstrate an ability to work fluently in an applications environment by completing hands-on projects based on a Business setting (9th grade Advanced Computer Applications is a graduation requirement).

WEB DESIGN I - 414 - GRADES 10/11/12 - This course teaches the fundamental concepts of web design and developmental as well as web programming. Students will learn to program for the web using HTML, XHTML, and CSS. HTML topics will include formatting tags, table frames, cascading style sheets, forms and embedding digital media (images and videos). Class exercises will include guided practice as well as student-driven web site development.

COMPUTER PROGRAMMING - 411 - GRADES 9/10/11/12 - This course introduces object orientated programming (OOP) using Microsoft C++ programming language. The course will emphasize the analysis of problems, the careful selection of and appropriate algorithm, and the

implementation for the algorithm C++. Topics covered will include input/output commands, control statements, looping, subroutines, string processing, and arrays. Students should have an aptitude for problem-solving and an interest in and familiarity of computers.

COMPUTER PROGRAMMING II - 412 - GRADES 10/11/12 - This course is appropriate for students who have completed Computer Programming I. The course continues the survey of Computer Science beyond the first level and intensifies the study of computer programming. Students will learn top down program design and a step-wise approach to problem-solving. In the class students will include graphical programming code to develop more advanced programs. Students will be required to solve problems and participate in local college programming contests. Prerequisite: Successful completion of Computer Programming I and prior instructor approval.

CYBER SECURITY - 418 - GRADES 10/11/12 - This course emphasizes the fundamentals of cyber security providing opportunities for students to familiarize themselves with cyber issues and topics such as the history of computers and security, networking fundamentals, software security, the basics of cryptography, and digital citizenship. The course will also cover careers opportunities in cyber security, an understanding of our nation's cyber security framework and the need to protect the various types of information assets. No prior prerequisites are required but successful completion of "Computer Programming" would be helpful for the understanding of some course concepts.

DIGITAL VIDEO PRODUCTION - 213 - GRADES 10/11/12 - Digital Video Production is designed to give student the opportunity to create presentations using videography- the process of recording sound and visual images on electronic media. Principles of video basics, DV technology, the development and creative process, editing, production, effects and presentation are stressed. Opportunities for creativity, problem solving, individual and group interaction and decision making are incorporated. Successful completion of "Foundations of Digital Photography" is encouraged.

DRIVER EDUCATION

DRIVER EDUCATION - 707 - GRADE 10 - The class is scheduled for tenth grade students as well as upper classmen who have not previously passed the classroom work. Behind the wheel training may be taken after the student has attained the age of 16. The course takes the student through a carefully organized safety program. Upon completion of 30 hours of classroom instruction and 6 hours of behind-the-wheel training, a student may be eligible for reduced auto insurance rates from some companies. Grade 10 Driver Education is a graduation requirement.

FAMILY AND CONSUMER SCIENCES

CAREER EXPLORATION – 057 - GRADE 8 *rotation* - This 45-day course focuses on educational, workforce and career options and pathways, stressing the development of skills necessary to make meaningful decisions about career choices. The Career Cruising platform will be utilized to pair students' interests and abilities with relevant career choices, particularly those in high demand. Students will have the latitude to research careers of their choice, as they learn and practice the fundamentals of completing academic research and writing.

FAMILY AND CONSUMER SCIENCE – 413 - GRADE 9 - *rotation* - A 60-day introductory course, 9th grade FACS is divided into 4 content areas: Analyzing conservation practices, balancing family, work and community responsibility, food science and nutrition and child development. Approximately 15 days are spent on each area, focusing on a project for each. This is a fast-paced,

hands-on course that will provide practical, day to day tips that students can apply to their everyday lives (9th grade Family and Consumer Science is a graduation requirement).

CHILD DEVELOPMENT - 656 - GRADES - 10/11/12 - Open to all students who have completed the 9th grade FACS rotation. This course covers the social, intellectual, emotional and physical development of a child from birth to six years of age. Pregnancy and parenthood are also discussed. This is a good course for those interested in careers in early childhood, elementary education, pediatrics, nursing, special education and parenting. *Dual Enrollment

FOODS AND NUTRITION - 651 - GRADES 10/11/12 - This course is for students who are interested in becoming more familiar with food, food preparation, and nutrition. The course is designed for students to understand the principles of kitchen management, nutrition, and in maintaining a healthy life style. Students will learn various aspects of kitchen management, food safety, food consumerism, cooking terms, tools, and equipment, along with various foods and recipes.

ADVANCED FOODS AND NUTRITION - 653 - GRADES 11/12 – Advanced Foods and Nutrition is a full year course where students will explore the following topics: Nutrition and society, food policy, the supply chain, nutrition and disease, preservatives/additives, soil, composting, cooking at home, growing food, and much more. This is a course designed for students with high interest in health, nutrition and food preparation. Prerequisite: Successful completion of Foods and Nutrition with an 84% or greater.

FOREIGN LANGUAGES

To obtain the most benefit from the study of a foreign language, students should study at least 3 years of the language. Students who are contemplating college study are encouraged to take 2 years of a language. Students must successfully complete each level of a language to proceed to the next. Successful completion is as follows: To advance from level I to level II students must achieve an overall grade of 71 or better in level I. To advance from level II to level III students must achieve an overall grade of 80 or better in level II. To advance from level III to level IV students must be recommended by their level III instructor.

FRENCH I - 258 - GRADES 9/10/11/12 - French I is a language course designed for the college bound student. This class is a comprehensive study of basic vocabulary and grammar of the language with practice in listening comprehension, speaking and simple reading and writing exercises. Contemporary aspects of French culture and the francophone world are introduced through dialogues and narratives.

FRENCH II - 259 - GRADES 10/11/12 - Students must have successfully completed French I to proceed to this course. French II continues with vocabulary and grammar studies with increasing intensity and complexity of listening comprehension, speaking and reading/writing activities.

FRENCH III - 260 - GRADES 11/12 - This class is for the serious language student. Again, this is an extension of French II with the lessons becoming more advanced with emphasis on oral work and comprehension. The reading and writing selections stress contemporary aspects of French life.

FRENCH IV - 261 - GRADE 12 - This class is for the very able language student and is the culmination of the first three years. The emphasis is on higher level speaking skills, comprehension, practical application and increased independent reading and writing activities. Eligible students will

be inducted into French National Honor Society during this year.

SPANISH I - 250 - GRADES 9/10/11/12 - Spanish I provides an introduction to the language and culture of the Spanish-speaking world. Speaking, listening and writing skills are emphasized with a focus on communication in a variety of topics. The Spanish program is based on the belief that the purpose of learning Spanish is to communicate with native speakers and to understand their cultures as well. The goal of each level is to provide students with the content and skills necessary to build toward becoming conversational.

SPANISH II - 251 - GRADES 10/11/12 - In Spanish II students continue to learn to communicate about their own lives and how to interact with Hispanic cultures. Reading and writing in Spanish will be included with continuous emphasis on listening to and speaking the Spanish language. This course will begin to explore more with modern Hispanic culture.

SPANISH III - 252 - GRADES 11/12 - Spanish III is for the serious language student. In Spanish III students continue to increase their ability to communicate in Spanish in many areas. The emphasis will be to continue to enhance speaking, writing and reading skills. The cultural focus will expand and will concentrate on the modern and post-Colombian Hispanic world. *Dual Enrollment

SPANISH IV - 253 - GRADE 12 - Spanish IV is the completion of the foreign language program offered. Students continue to improve, refine and enhance their ability to communicate in Spanish. More complex grammatical structures are introduced, some reading of Spanish literature is integral. The cultural focus is on the modern, pre and post-Colombian Hispanic world and current events. Summer assignments may be required between III and IV. Students who complete the entire progression through level IV AND meet all of the eligibility requirements for the *Sociedad Honoraria Hispánica*, which is the Spanish Honor Society) will be eligible for induction into the SHH. *Dual Enrollment

MUSIC

MUSIC APPRECIATION - 080 - GRADE 7 *rotation* - All 7th grade students must take this 45-day course to fulfill their music requirement. Students will be introduced to various musical instruments, rudimentary music theory and music history.

CHORUS - 082 - GRADE 7 - Open to all 7th grade students who are interested in singing and vocal development. The chorus prepares two programs for public performance each year along with intensive eye and ear musical training aimed at developing music reading ability. Full participation in concerts is mandatory as is active participation in rehearsal. There may be opportunities for small-ensemble and/or solo performance as well as participation in other festivals and concerts.

BAND - 083 - GRADE 7 - Open to all 7th grade students with some experience playing a band instrument. Instruction during the year is concerned primarily with instrumental skill development, the ability to read music and with preparation of concert music. Participation in multiple concerts and other events such as graduation is mandatory as is active participation during rehearsal times. Junior High band students will be able to participate in other music-related opportunities throughout the calendar year. Students must have access to an instrument to enroll in this class; please contact the instructor with questions about instrument availability.

CHORUS - 085 - GRADE 8 - Open to all 8th grade students who are interested in singing and vocal development. The chorus prepares two programs for public performance each year along with intensive eye and ear musical training aimed at developing music reading ability. Emphasis is placed on the developing male voice and multi-part harmony. Full participation in concerts is mandatory as is active participation in rehearsal. There may be opportunities for small-ensemble and/or solo performance as well as participation in other festivals and concerts.

BAND - 084 - GRADE 8 - Open to all 8th grade students with some experience playing a band instrument. Instruction during the year is concerned primarily with instrumental skill development, the ability to read music and with preparation of concert music. Individual growth and development is emphasized as students prepare for the high school music program. Participation in multiple concerts and other events such as graduation is mandatory as is active participation during rehearsal times. Junior High band students will be able to participate in other music-related opportunities throughout the calendar year. Students must have access to an instrument to enroll in this class; please contact the instructor with questions about instrument availability.

CONCERT CHOIR - 800 - GRADES 9/10/11/12 - This is a select group of mixed voices. Vocal and sight-reading proficiency are necessary. The group sings high caliber choral music from all periods of music history. Several public performances are given each year both in school and in the community. Full participation in concerts is mandatory as is active rehearsal participation.

SYMPHONIC BAND - 802 - GRADES 9/10/11/12 - This is an elective course for students in grades 9 through 12. Admittance is based upon instrumental proficiency and the requirements of balanced instrumentation. This is the primary group to represent the instrumental music department at school and community functions. All performances are mandatory. Students will be required to take individual playing assessments. Students are required to play for graduation.

MUSIC LITERATURE - 805 - GRADES 9/10/11/12 - An introduction to the music literature of the various periods of music history, mainly through the medium of the symphony orchestra, with emphasis placed upon formal structure. Students also study the development of American music from 1900 to the present day. THIS COURSE IS GENERALLY OFFERED EVERY OTHER YEAR. **THIS COURSE WILL BE OFFERED IN THE 2021/2022 SCHOOL YEAR.**

MUSIC THEORY I - 806 - GRADES 9/10/11/12 - An elective open to students with a background in music. Emphasis is on written theory with exposure to keyboard harmony and solfege. The primary thrust is developing melodic, harmonic, and rhythmic skills towards writing counterpoint and four-part harmony. Detailed attention is given to both major and minor keys, interval recognition (including ear training), triads, and seventh chords. Students should have a minimum of one year of successful experience in chorus or band, and instructor approval to schedule the course is recommended. COURSE IS GENERALLY OFFERED EVERY OTHER YEAR. **THIS COURSE WILL BE OFFERED IN THE 2020/2021 SCHOOL YEAR.**

MUSIC THEORY II - 807 - GRADES 10/11/12 - An elective open to students with a background in music who have successfully completed Music Theory I. This course serves to expand on the musical theory content delivered in the first course, with an emphasis on further refinement of the skills developed during Music Theory I and in-depth exposure to themes a student majoring or minoring in music would find beneficial. THIS COURSE IS OFFERED WHEN STUDENT INTEREST AND AVAILABILITY ALLOWS. **THIS COURSE MAY BE OFFERED IN THE 2021/2022 SCHOOL YEAR.**

INTRO TO MUSIC TECHNOLOGY - 808 - GRADES 9/10/ 11/12 - This course is a survey of technology and its uses in music. An elective open to students with a background in music and experience in playing an instrument in school or outside of school. Student experiences will include an overview of electronic music instruments, microphones, sound systems, digital and analog synthesis, effects processing, digital audio, MIDI, and sequencing. Students will also work with Finale and Reason/Record software. The enrollment is limited to 10 students.

ADVANCED INSTRUMENTAL MUSIC - 813 - GRADES 9/10/11/12 - This course will augment students' existing knowledge of the musical elements: rhythm, melody, harmony, tone color/timbre, genre/style, and form. Students will apply these elements to the music making process. While this elective is NOT limited to students currently participating in band, experience on and ownership of an instrument in good working condition IS REQUIRED for this class. Additionally, students will primarily be working individually in a communal environment and will need to be considerate of their fellow classmates. Participation in an end-of-year performance will be required.

WORLD MUSIC/MUSIC MASH UP - 814 - GRADES 9/10/11/12 - Throughout this course, students will learn to appreciate the universal nature of music. Students will be exposed to a variety of music from many cultures and societies around the world. Learning about musical traditions and customs, as well as analyzing and experiencing the music of non-Western culture will be emphasized. In addition, students will learn about multiple aspects of music, emphasizing the connections that music has to other disciplines. Topics will include music-related careers, technology, recording, the science of sound, psychology of music, copyright and legal issues, business and economics. While instrumental experience in NOT necessary to take this class, students MUST possess an open mind and a willingness to try challenge themselves musically.

PHYSICAL EDUCATION AND HEALTH

PHYSICAL EDUCATION – GRADES - 7/8/9/10/11/12 - Our mission is to empower all students to sustain lifelong physical activity as a foundation for a healthy and productive lifestyle. The junior high program will introduce 7th and 8th grade students to the weight room and cardio room, game rules and strategies, the ability to work cooperatively, motor skill development and basic fitness concepts. The 9/10 program transitions to emphasize lifetime and leisure activities, higher level cooperative games/sports, weight room, cardio room and personal fitness. Ultimately, with an emphasis on the health and skill-related components of fitness, the 11/12 students will choose from a variety of fitness, lifetime and leisure or team activities.

ADAPTIVE PHYSICAL EDUCATION - 704 - GRADES 7/8/9/10/11/12 - An individualized program of adaptive Physical Education is offered with proper referral from a medical doctor.

HEALTH - 055 - GRADE 8 - ***rotation*** **-** This 45-day course focuses on the life skills and knowledge necessary to make informed choices regarding physical, mental, emotional, and social health components. Topics covered will include: the functions and structures of various body systems, as well as the care and prevention of disease to these systems, proper nutrition, planning and analyzing meals and nutritional values-Self-esteem, decision-making skills and stress management skills-drug and alcohol awareness-puberty and the adolescent brain-character education and HIV/STD/STI prevention.

HEALTH - 705 - GRADE 10 - This year-long, half-credit course is designed to enable students to demonstrate knowledge to avoid alcohol and other drugs and to identify healthful practices for dietary selection, physical activity, stress management, risky behaviors, and making smart decisions. Student learning will take place through a variety of different teaching strategies. Grade 10 Health is a graduation requirement.

ANATOMY AND PHYSIOLOGY - 706 - GRADES 11/12 - Human Anatomy and Physiology is a course designed for students who desire to develop an understanding of the human body. Students will learn structures, functions, and regulation of human body systems through a variety of different learning strategies. THIS COURSE IS OFFERED EVERY OTHER YEAR. **THIS COURSE WILL BE OFFERED IN THE 2021/2022 SCHOOL YEAR.**

FIRST AID AND SAFETY - 710 - GRADES 11/12 - The purpose of this course is to help participants identify and eliminate potentially hazardous conditions in their environment, recognize emergencies and make appropriate decisions for first aid care. It teaches skills that participants need until more advanced medical care arrives to take over. THIS COURSE IS OFFERED EVERY OTHER YEAR. **THIS COURSE WILL BE OFFERED IN THE 2020/2021 SCHOOL YEAR.**

TECHNOLOGY EDUCATION

DESIGN AND MODELING - 051 - GRADE 7 - *rotation* - This 45-day Project Lead the Way course provides students opportunities to apply the design process to creatively solve problems. Students are introduced to the unit problem in the first activity and are asked to make connections to the problem throughout the lessons in the unit. Students learn and utilize methods for communicating design ideas through sketches, solid models, and mathematical models. Students will understand how models can be simulated to represent an authentic situation and generate data for further analysis and observations. Students work in teams to identify design requirements, research the topic, and engage stakeholders. Teams design a toy or game for a child with cerebral palsy, fabricate and test it, and make necessary modifications to optimize the design solution.

AUTOMATION AND ROBOTICS - 054 - GRADE 8 - *rotation* - This 45-day Project Lead the Way course allows students to trace the history, development, and influence of automation and robotics as they learn about mechanical systems, energy transfer, machine automation, and computer control systems. Students use the VEX Robotics® platform to design, build, and program real-world objects such as traffic lights, toll booths, and robotic arms.

ADAPTIVE TECHNOLOGY EDUCATION - 617 - GRADES 9/10/11/12 – Adaptive Tech. Ed. is a new course offered to students through a recommendation and referral process. Students will receive small group instruction and hands-on experience with a variety of technologies, materials and tools, and will develop skills valued in the workplace such as problem-solving, collaboration, creativity and technical literacy.

ENGINEERING ESSENTIALS - 618 - GRADES 9/10/11/12 - Engineering Essentials is a new Project Lead the Way course geared toward high school students interested in pursuing an engineering-related career. It explores a variety of relevant career opportunities as students explore global engineering challenges, sustainability goals and the impact of engineering. Engineering Essentials students will be taught to approach and solve problems in different and creative ways, use a variety of industry tools such as computer-aided design, build an engineering mindset and develop

proficiency in key STEM-related career competencies including technical communication, collaboration, computational and systems thinking, project management, and ethical reasoning.

FOUNDATIONS OF DIGITAL PHOTOGRAPHY - 605 - GRADES 9/10/11/12 - This introductory course explores the basics of digital photography. Course content will focus on the technology behind digital single lens reflex cameras as well as photographic composition principles. Students will gain an understanding of how photographers use pictures to communicate ideas along with exploring the history of the media. Topics such as camera controls, lens capabilities, photographic paper, and digital imaging software will be discussed. Students will also gain an understanding of *Adobe Photoshop* fundamentals and basic "digital darkroom" concepts including file management, color correction and image manipulation. *Dual Enrollment

GRAPHIC COMMUNICATIONS I - 607 - GRADES 9/10/11/12 - This course provides a broad overview of the visual communications industry. It emphasizes design principles, history of visual communications technologies, and the production of typical products within the industry. Topics of study include printing/reproduction processes, vinyl signage, digital photography, desktop publishing, the advertising industry and computer-based communications systems. Related activities will include applying design principles to create graphic designs, advertising design and layout, bookbinding, product design and production, and screen printing. An average of C or above is required to advance to Graphic Communications II.

GRAPHIC COMMUNICATIONS II - 608 - GRADES 10/11/12 - PREREQUISITE GRAPHICS I – This course will provide a series of practical experiences in the design and technical aspects of publishing and production. The class will be responsible for producing graphics projects on a regular basis. All students will be exposed to areas of research, layout, editing, design elements, advertisement/publicity development, digital photography, color registration and various printing processes including offset duplication, vinyl signage, and screen printing.

ADVANCED GRAPHIC DESIGN AND PRODUCTION - 614 - GRADE 11/12 - Advanced Graphic Design and Production will expand on what students learned in Graphic Communications I and II. Course content will focus on authentic product design and production related to the needs of the school district and community. Independent projects and advanced design instruction will supplement the production component of the course. Creativity, teamwork and communication skills will be emphasized. Potential projects include screen printing, ticket design and production, school event publicity items and programs, vinyl design and production, district-wide photography and photo editing. Students interested in scheduling this course need to have taken two of the three following classes: Graphics I, Graphics II, Foundations of Digital Photography, or one of the courses with teacher recommendation.

INTRODUCTION TO METAL TECHNOLOGY - 600 - GRADES 9/10/11/12 - Introduction to metal technology is a course with a goal of giving students a basic knowledge in metalworking. Students will work in both hot metal processes (welding, casting, forging, etc.) and machine processes (lathe and milling machine). Students will be learning by producing a variety of projects required by the instructor.

ADVANCED METAL TECHNOLOGY - 601 - GRADES 10/11/12 - Advanced Metal Tech. is a course for students who would like to continue their education in metalworking. Students will be introduced to different welding processes and more advanced machining processes. Part of the year will be spent designing and completing a production project.

ADVANCED METAL TECHNOLOGY II - 611 - GRADES 11/12 - This course is designed for students who have passed both Intro and Advanced Metal Technology. The course requires instructor approval and may not be offered every year. The intent of this course is to teach maintenance and repair of various machines and equipment. Part of the year may be dedicated to a large class project.

MECHANICAL DRAWING / DESIGN - 602 - GRADES 9/10/11/12 - Students will learn drawing techniques used by professionals to model dynamic designs ranging from cars and airplanes to houses and skyscrapers. This course would benefit students interested in architecture, drafting, machining, construction, machine work, mechanics or engineering. Students will be introduced to AutoCAD (Computer Aided Drawing).

ADVANCED MECHANICAL DRAWING / CAD - 603 - GRADES 10/11/12 - Students will learn Advanced Drawing techniques using AutoCAD and Inventor. These are two of the most popular drawing programs used in architecture, technical trades and engineering. This course would benefit students interested in architecture, drafting, machining, construction, machine work, mechanics or engineering. Students must have successfully completed Mechanical Drawing / Design prior to taking this course.

ARCHITECTURAL DRAWING – 606 - GRADES 10/11/12 - Students will learn various architectural styles and techniques to design a home using AutoCAD and Revit software. This course also includes learning about each aspect of architectural style, home layout and design, construction and making scale models. Prior to taking this course, students must have successfully completed Mechanical Drawing I and II. Seniors who have completed Mechanical Drawing I can take both CAD II and Architectural Drawing with teacher recommendation.

INTRODUCTION TO WOOD TECHNOLOGY - 609 - GRADES 9/10/11/12 - In this course students will learn how to properly use hand tools and machines to lay out and process materials to specific dimensions. They will learn safety, lumber processing and grading, project planning, basic joinery, assembly, sanding and finishing techniques. Students will be trained to use a CNC Router to advance their skills in both wood and computer technology. They will apply these skills to complete required assignments, tests and projects throughout the school year.

ADVANCED WOOD TECHNOLOGY - 610 - GRADES 10/11/12 - Students must have successfully completed Introduction to Wood Technology prior to taking this course. This course begins by reviewing safety, machine processes and joinery before moving on to advanced woodworking techniques, independent design and construction of multiple progressively complex and independent projects throughout the school year.

VOCATIONAL TECHNICAL SCHOOL PROGRAMS
SUSQUEHANNA COUNTY CAREER AND TECHNOLOGY CENTER

The purpose of occupational education is to provide an opportunity for every individual to be trained in a service, skill, or occupation provided he/she has the interest and capability to learn and profit by such training to the extent that it aids him/her in earning a living.

Mission of SOAR: The mission of SOAR (Students Occupationally and Academically Ready) is to prepare students for college and careers in a diverse, high-performing workforce. Benefits of S.O.A.R. include Saving Money on College Tuition, Saving Time by Shortening College Attendance, Getting on the Right Career Pathway, Entering the Job Market Ready and Getting a Consistent Education.

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

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

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

A.M. SCCTC - 899 - GRADES 11/12 - P.M. SCCTC - 900 - GRADE 10 - The programs taught at the vocational/technical school are trade courses designed to prepare students for careers in skilled occupations. Strong emphasis is placed on teaching business practices, handling tools, and interpreting technical manuals. These courses require good aptitude for mechanics and manual dexterity plus average academic ability. First year students attend in the afternoon. Second and third year students attend in the morning. This serves as your elective credits. After graduation from high school many continue their education in technical colleges. The following courses are available to students:

Autobody/Collision Repair Technology
An instructional program that prepares individuals to apply technical knowledge and skills to repair damaged automotive vehicles such as automobiles and light trucks. Students learn to examine damaged vehicles and estimate cost of repairs; remove, repair and replace upholstery, accessories, electrical and hydraulic window and seat operating equipment and trim to gain access to vehicle body and fenders; remove and replace glass; repair dented areas; replace excessively damaged fenders, panels and grills; straighten bent frames or unibody structures using hydraulic jacks and pulling devices; and file, grind and sand repaired surfaces using power tools and hand tools. Students refinish repaired surfaces by painting with primer and finish coat.

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

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

Cosmetology/Cosmetologist
This 3-year instructional program prepares individuals to apply technical knowledge and skills related to experiences in a variety of beauty treatments including the care and beautification of the hair, complexion and hands. Instruction includes training in giving shampoos, rinses and scalp treatments; hair styling, setting, cutting, dyeing, tinting and bleaching; permanent waving; facials; manicuring; and hand and arm massaging. Bacteriology, anatomy, hygiene, sanitation, salon management including record keeping and customer relations are also emphasized. Instruction is designed to meet the 1,250 state required hours and to sit for the licensing examination. Students may also return as adults for esthetician, glycolic peel, microdermabrasion, or teacher certification.

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

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

of the vast number of culinary positions. They may continue their restaurant management education in the hotel restaurant management or culinary arts fields.

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

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

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

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

COOPERATIVE VOCATIONAL EDUCATION PROGRAM

(Career-oriented Work Release)

Are you currently working a minimum of 20 hours per week, or would you like to work at a job related to a specific career objective? If so, you can combine your employment with an employment skills class and receive elective credit toward graduation. Students must have reliable transportation and good grades and attendance. Contact the Guidance Office or Mr. Robert Davis, Co-op Coordinator if interested. Students must receive preapproval to participate in this program.

EMPLOYMENT SKILLS CLASS – 901 – GRADES 11/12 – Students receive one credit for this co-op course, which meets daily. All co-op students take this class their first year in the program. Students will learn practical skills for employment and being successful in life. Topics such as safety, resume writing, interviewing, career exploration, starting your own business and professional development are addressed.

EMPLOYMENT SKILLS WORK RELEASE – 902 – GRADES 11/12 – Students receive 2-4 credits for an approved, supervised work experience. This is a school and community partnership, and employers must agree to follow a training plan and allow brief monthly visits by the co-op coordinator. In addition, students must have proper working papers and their employer must carry workman's compensation for them (no working under the table). Quarry work, heavy equipment operating, roofing occupations and other similar professions are not legally permitted until students reach the age of 18. Students attend their academic classes in the morning and are released in the afternoon to attend work. Students are expected to work a minimum of 20 hours per week, including weekends, and must maintain passing grades and regular attendance to continue participation in this program.

SCHOOL TO WORK - 903 - GRADES 11/12 - Students are selected through a competitive process to work at various sites one or two days per week, and employment options vary from year to year. Placement is made in the spring for work in the fall.

MATHEMATICS SEQUENCES

The following sequences are the most common math progressions. Sequence #1 is the most challenging. Learning Support math classes are offered in addition to those classes appearing on this chart. Students with GIEP's may have other options available. Students are required to take three years of math but are encouraged to take four. Be sure to take note of the STEAM credit requirement.

Grade	Sequence #1 "Accelerated"	Sequence #2 "Accelerated"	Sequence #3 "College Prep"	Sequence #4 "Academic/General"	Sequence #5 "General"
8	Algebra I	Math 8	Math 8	Math 8	Math 8
9	Geometry	Algebra I	Algebra I	Algebra I	Algebra 1A
10	Algebra II	Algebra II & Geometry	a) Geometry b) Informal Geometry	Algebra 2***	Algebra 1B
11	Trigonometry	Trigonometry	Algebra II	a) Geometry b) Informal Geometry ****c) Keystone Algebra / Applied Geometry	a) Informal Geometry ****b) Keystone Algebra / Applied Geometry
12	a) AP Calculus b) Calculus c) Statistics	a) AP Calculus b) Calculus c) Statistics	a) Trigonometry b) Alg 3/Basic Trig	Algebra 3/Basic Trig	a) Informal Geometry b) Algebra 2

NOTES:

"a)" options are generally considered more rigorous than "b)" options

*Only students who have taken Pre-Algebra in 7th grade may enter Sequence #1.

**Doubling up with Algebra II and Geometry requires a minimum 92% average in Algebra I and teacher preapproval.

***Students completing Algebra I but not scoring Proficient or Advanced on the Algebra Keystone Exam will be placed in Sequence #4. **Sequence 4 will not be widely used during the 2020-21 school year since Spring 2020 Keystone testing was cancelled.**

****Students who have not scored Proficient or Advanced on the Algebra Keystone Exam prior to their Junior year will be placed in Keystone Algebra/Applied Geometry.

ENGLISH SEQUENCES

The following sequences are the most common English Progressions. Sequence #1 is the most challenging. Learning Support English classes are offered in addition to those classes appearing on this chart.

Grade	Sequence #1	Sequence #2	Sequence #3
9	English 9 or Honors 9	English 9	English 9
10	CP English 10 or Honors 10	CP English 10	English 10
11	AP Lang. and Comp. Honors English 11	C.P. English 11	English 11
12	AP Lit. and Comp. AP Lang. and Comp.	C.P. English 12 AP Lit. and Comp.	English 12

Journalism and Public Speaking/Drama are English Department electives available to students in grades 9-12.

SCIENCE SEQUENCES

The following sequences are the most common Science progressions. Sequence #1 is the most challenging. Students are required to take three years of Science courses but are encouraged to take four. Take note of the STEAM credit requirement.

Grade	College Bound Science Majors	College Prep Students	General and Trade Students
9	Earth Science or Honors Earth Science	Earth Science	Earth Science
10	C.P. Biology	C.P. Biology	Biology
11	Chemistry *AP Biology *Environmental Science	Chemistry OR Physics (Applied Chem. suggested if not Proficient on Keystone Biology exam) *Environmental Science	Applied Chemistry OR Adv. Physical Science *Environmental Science
12	Physics *AP Chemistry *Environmental Science	Chemistry OR Physics *Environmental Science	*Environmental Science

* AP Chemistry, AP Biology, and Environmental Science are Science Department electives that are available to students in grades 11 and 12, but do not count as a required science credit.

SOCIAL STUDIES SEQUENCES

The following sequences are the most common Social Studies progressions. Sequence #1 is the most challenging. Students are required to take four years of Social Studies.

Grade	Sequence #1	Sequence #2	Sequence #3
9	Honors United States History II	United States History II	United States History II
10	Honors United States History III	United States History III	United States History III
11	Advanced Placement European History	C P. Modern World History	Modern World History
12	Advanced Placement American Government	C. P. American Government	American Government

Psychology is a Social Studies elective offered to students in grades 11 and 12.