

**UNION HIGH SCHOOL
COURSE SELECTION GUIDE
2022-2023**



354 Baker Street
Rimersburg, PA 16248
814-473-3121

Union School District Graduation Requirements

Credits required and must be passed for Graduation:

- 4 English credits
 - 3 Social Studies credits (Required: American Cultures I, American Cultures II and American Government/Economics)
 - 3 Math credits (Required: Algebra I)
 - 3 Science credits (Required: Biology)
 - 2 Arts & Humanities credits
 - .50 Health credit
 - 1.5 Physical Education credits
 - 7 Elective credits
 - Careers (.25 cr. each year enrolled at Union) *Must pass these courses for each year enrolled at Union High School to meet graduation requirements.
 - Proficiency on the Algebra I, Literature and Biology Keystone Exams or an alternate graduation pathway (See handout) after two attempts on the Keystone Exam.
- ** The principal has the authority to adjust a course sequence/prerequisite on a case by case basis due to extraordinary circumstances.

Total Credits: 24.00 - 25.00 (depending on years enrolled at Union)

A sample four year plan is listed below. Any additional Math, Science and/or Social Studies beyond the three required will complete Art & Humanity or Elective requirements. See above for specific credit details.

Grade 9

English (1 cr.)
 Am. Cultures I (1 cr.)
 Math (1 cr.)
 Biology (1 cr.)
 Physical Education (.50 cr.)
 Careers 9 (.25 cr.)

Grade 10

English (1 cr.)
 Am. Cultures II (1 cr.) - CCCC students will take in 12th grade
 Math (1 cr.)
 Science (1 cr.)
 Physical Education (.50 cr.)
 Careers 10 (.25 cr.)

Grade 11

English (1 cr.)
 American Government/Economics (1 cr.)
 Math (1 cr.)
 Science (1 cr.)
 Health 11 (.50 cr.)
 Physical Education (.50 cr.)
 Careers 11 (.25 cr.)

Grade 12

English (1 cr.)
 Social Studies (1 cr.)
 Math (1 cr.)
 Science (1 cr.)
 Physical Education (.50 credit)
 Careers 12 (.25 cr)

The following courses will fulfill the Art & Humanities credit requirements:

Spanish I - IV	French I (pending teacher cert)	Art 9-12
Drawing/Painting	Sculpture/Ceramics	Music Technology Piano/Keyboard/Guitar
Marching Band	Concert Band	Concert Choir
Yearbook 9-12	Speech & Debate	Creative Writing
Multimedia History	History in the Headlines 9-12	World Religion
Psychology	Military History	Holocaust
World Governments	The History of the Media and Television	

ART DEPARTMENT

775 ART 7: Requirement for 7th grade students; 9-week Course. This is an introductory course into the visual arts. Students will learn the elements of art and explore these elements through the creation of their own artwork.

777 ART 9-12: Elective for 9th - 12th grade students; 1 cr. Art 10-12 is a studio course for the intermediate to serious art students. We will further explore the many mediums of art, as well as develop critical thinking and problem solving, as students work more independently.

784 DRAWING/PAINTING: Elective for 9th - 12th grade students; .5 cr. This course will begin with a complete drawing instruction and evolve to cover painting techniques and mediums including watercolor and acrylic paints.

785 SCULPTURE/CERAMICS: Elective for 9th - 12th grade students; .5 cr. This course will explore Ceramics through the hand-building technique. Students will create functional as well as sculptural projects out of clay. Plaster will also be explored as a sculpting medium.

ENGLISH DEPARTMENT

100 ENGLISH/READING 7: Requirement. This reading and writing course is an interactive process of constructing meaning from text and converting thoughts to the written word. The students will learn, practice, and apply a variety of strategies in the areas of listening, speaking, reading, writing, and study skills. The development of these strategies will enable the students to interpret various fiction and nonfiction types of literature including poetry and novels. The students will be identifying literary elements, increasing vocabulary, interpreting figurative and literal language, creating written responses to literature, interpreting graphic aids, and utilizing a variety of skills to comprehend text. The students will also learn writing skills that will prepare them for 8th grade, focusing on narrative, argumentative, informative, and other constructed responses. Through these writings, students will be exposed to appropriate grammar lessons and clear sentence structures and techniques (e.g. transition words). A variety of texts will be used to enhance students' development of comprehension skills used to understand fiction and nonfiction material. The questioning is aligned with the PA Core. Another focal point will be preparing for PSSA testing. Required career artifact(s) will be completed in this course.

101 ENGLISH/READING 8: Requirement. This reading and writing course is an interactive process of constructing meaning from text and converting thoughts to the written word. The students will learn, practice, and apply a variety of strategies in the areas of listening, speaking, reading, writing, and study skills. The development of these strategies will enable the students to interpret various fiction and nonfiction types of literature including poetry and novels. The students will be identifying literary elements, increasing vocabulary, interpreting figurative and literal language, creating written responses to literature, interpreting graphic aids, and utilizing a variety of skills to comprehend text. The students will also learn writing skills that will prepare them for 9th grade, focusing on narrative, argumentative, informative, and other constructed responses. Through these writings, students will be exposed to appropriate grammar lessons and clear sentence structures and techniques (e.g. transition words). A variety of texts will be used to enhance students' development of comprehension skills used to understand fiction and nonfiction material. The questioning is aligned with the PA Core. Another focal point will be preparing for PSSA testing. Required career artifact(s) will be completed in this course.

102 ENGLISH 9: Requirement; 1 cr. This class focuses on literature, poetry, grammar, vocabulary, and writing. Students cover several short story units, one novel, and one Shakespearean play. Emphasis is placed on writing, and scoring is based on the standards specified on the PA Writing Assessment Rubric. Students study vocabulary within the context of literature. Students participate in reinforcement activities, essay writing, and presentations of their work. Required career artifact(s) will be completed in this course.

103 ENGLISH 10: Requirement for 10th-grade students (108 Honors English 10 may be selected instead); 1 cr. **Prerequisite:** English 9. This class focuses on American Literature as the foundation for developing skills in reading, writing, presentation, and research. Review and reinforcement for the Grade 10 Keystone Exams are also a focus of this course. Students study representative works from a variety of American authors and literary periods. Literary works include several novels, one or more plays, short stories, poetry, and nonfiction. Additionally, students generate various types of writing, including narrative, persuasive, and creative pieces. Emphasis is placed on vocabulary building, and effective writing and grammar skills are reviewed and reinforced.

104 ENGLISH 11: Requirement for 11th-grade students (107 Honors English 11 may be selected instead); 1 cr. **Prerequisite:** American Literature. This course is an analytical survey focusing on the literature of the British Isles, from Anglo-Saxon to Contemporary times. Students trace the development of the English Language through literary, linguistic, historical, and cultural studies. Emphasis is placed on writing, and scoring is

based on the standards specified on the PA Writing Assessment Rubric. Students are responsible for vocabulary building. Activities include essay writing, presentations of work, creative writing, critical analysis, and a research project using MLA documentation style. Required career artifact(s) will be completed in this course..

105 ENGLISH 12: Requirement for 12th-grade students (109 College Preparatory English 12 may be selected instead); 1 cr. **Prerequisite:** English 11. This class focuses on World Literature as the foundation to develop skills in reading, writing, presentation, and research. Students study mythology, ancient and sacred works, novels, drama, poetry, and nonfiction from various countries. Additionally, students generate various types of writing, including informative, narrative, persuasive, and creative pieces, as well as research papers or presentations. This class also emphasizes the development of effective communication skills required for post-high school careers. Required career artifact(s) will be completed in this course.

106 HONORS ENGLISH 12: 1 cr. **Prerequisite:** Honors English 11 passed with a grade of **85%** or above and/or teacher recommendation. It is **strongly** recommended that students have taken at least one previous Honors English class. Additionally, a score that is below proficient on the Keystone Exams will disqualify a student for Honors 12 without administrative approval. This course focuses on World Literature with an emphasis on developing and refining critical reading, writing, and thinking skills needed for college work in all academic disciplines. Literary works include mythology, ancient and sacred writings, novels, drama, poetry, and nonfiction from various countries and cultures. The course work also integrates concepts of history, psychology, philosophy, politics, and religion into a study of literature. Students generate critical essays, responses to literature, informative, and persuasive pieces. Additionally, as a weighted honors course, students will complete more in-depth assignments as well as independent critical analysis of several novels, which include critical writing, research, and presentation. A research paper with in-text citations is a requirement of this course. Required career artifact(s) will be completed in this course. **This is a weighted course.**

107 HONORS ENGLISH 11: 11th-grade English Course for students expressing a special interest in literature and writing; 1 cr. **Prerequisite:** Honors English 10 passed with a grade of **85%** or above and/or teacher recommendation. Additionally, a score that is below proficient on the Keystone Exams will disqualify a student for Honors 11 without administrative approval. This course is specially designed for students planning to pursue a career that heavily involves writing and/or literature. This class focuses on English and British Literature. Students trace the development of the English Language through literary, linguistic, historical and cultural studies. Emphasis is placed on critical writing and synthesis of information, and scoring is based on the standards specified on

the PA Writing Assessment Rubric. Students master rules of prescriptive grammar and work on vocabulary building. Minor concentrations are placed on political theory, sociology, philosophy, biology, foreign languages, classical music, art, and public speaking. Activities include many compositions, presentations of work, and research projects using MLA documentation style. Required career artifact(s) will be completed in this course. **This is a weighted course.**

108 HONORS ENGLISH 10: 1 cr. **Prerequisite:** Honors English 9 passed with a grade of **85%** or above and/or teacher recommendation. This class focuses on American Literature as the foundation for developing skills in reading, writing, presentation, and research, with an emphasis on the development of critical reading, writing, and thinking skills. Review and reinforcement for the Grade 10 Keystone Exams are also a focus of this course. Students study representative works from a variety of American authors and literary periods, including novels, plays, short stories, poetry, nonfiction, and students' independent reading. Additionally, students generate various types of writing, including narrative, persuasive, and creative pieces as well as an introduction to critical analysis. Vocabulary study emphasizes SAT and Keystone terms as well as preparation for the SAT. Effective writing and grammar skills are reviewed and reinforced. **This is a weighted course; therefore, students who enroll in this course should be aware that it requires a higher level of reading, writing, and critical thinking than previous English courses.**

109 COLLEGE PREPARATORY ENGLISH 12: 1 cr. **Prerequisite:** English 11 passed and teacher recommendation. Additionally, a score that is below proficient on the Keystone Exams may disqualify a student for Honors 12. This course focuses on World Literature with an emphasis on developing and refining critical reading, writing, and thinking skills needed for college work in all academic disciplines. Literary works include mythology, ancient and sacred writings, novels, drama, poetry, and nonfiction from various countries and cultures. The course work also integrates concepts of history, psychology, philosophy, politics, and religion into a study of the literature. Students generate critical essays, responses to literature, informative, and persuasive pieces. A research paper with in-text citations is a requirement of this course. Required career artifact(s) will be completed in this course..

110 SPEECH & DEBATE I : Elective for 10th - 12th grade students; .5 cr. Highly recommended for all college-bound students. This eighteen-week course introduces students to the composing strategies of public speaking through a gradual progression from impromptu to debate. Students will write and present informative, narrative, and persuasive speeches. Students will learn and implement delivery techniques to improve overall public speaking abilities.

112 CREATIVE WRITING: Elective for 9th - 12th grade students; .5 cr. Students explore their imaginations through creative writing in prose and poetry. This course emphasizes writing practice and development. Upon completion of this course, students will be prepared to seek publication in periodicals and contests.

113 HONORS ENGLISH 9: 1 cr. **Prerequisite:** English 8 passed with a grade of **93%** or above and/or teacher recommendation. Additionally, a score that is below proficient on the PSSA will disqualify a student for Honors 9 without administrative approval. This class focuses on literature, poetry, grammar, vocabulary, and writing. Students cover several short story units, several novels, and one Shakespearean play. This course requires accelerated independent reading and emphasis is placed on writing (including text-dependent analysis), and scoring is based on the standards specified on the PA Writing Assessment Rubric. Students study vocabulary to improve reading, writing, and assessment skills. Students participate in reinforcement activities, essay writing, and presentations of their work. Required career artifact(s) will be completed in this course. **This is a weighted course; therefore, students who enroll in this course should be aware that it requires a higher level of reading, writing, and critical thinking than previous English courses.**

FOREIGN LANGUAGE DEPARTMENT

602 SPANISH I: Elective for 9th - 12th-grade students; 1 cr. (no credit awarded in 8th grade). Students in 8th grade must have passed 7th grade English and Math with an 'A' or 'B'. This course focuses on written and oral communication in the present, simple future, and present progressive tenses. Students learn to write and speak about family, school, weather, time, and express preferences. Some projects include a Hispanic country presentation and family tree project. Taking notes is required.

603 SPANISH II: Elective for 10th - 12th-grade students; 1 cr. **Prerequisite:** Completion of Spanish I with a passing grade. Students will talk about shopping, clothing, sports, ask for and give directions, discuss their daily routine, and talk about the past, present, and future. Projects include a monster project, a city and scavenger hunt project, and runway project with clothing vocabulary. Taking notes is required.

604 SPANISH III: Elective for 11th - 12th grade students; 1 cr. **Prerequisite:** Completion of Spanish II with a 'B' or higher (or approval from teacher). Students will continue to study past tenses and compare and contrast their different verb conjugations. Students will learn how to discuss their health, give commands, and express personal reactions. They will incorporate double object pronouns into their speech and will begin study of the subjunctive tense. Students will read a short story in Spanish to reinforce

vocabulary, tenses, geography, and culture of Latin America. Projects include cooking show projects with affirmative tú commands and ABC booklet. Taking notes is required.

605 SPANISH IV: Elective for 12th grade students; 1 cr. **Prerequisite:** Completion of Spanish III with a 'B' or higher (or approval from teacher). Students will study the subjunctive tense in depth and will read and discuss excerpts from short stories and a variety of literature including "Don Quixote de la Mancha." Students will discuss various verb tenses in depth that have not been discussed previously. Students should feel confident speaking in Spanish by the end of this course. Taking notes is required.

607 FRENCH I: Elective for 9th - 12th-grade students; 1 cr. This course focuses on written and oral communication in the present tense. Students learn to write and speak about family, school, weather, time, and express preferences. Students will explore French culture, as well as the culture of other French speaking countries. Some projects include a family tree project. Taking notes is required. Pending teacher certification.

HEALTH AND PHYSICAL EDUCATION DEPARTMENT

651 HEALTH 8: Requirement for 8th grade students; .5 cr. Primary emphasis is directed toward current health issues critical to the adolescent. Special attention is focused upon the definition and what it is meant to be healthy, as well as nutrition and weight control, emotional health, drug, tobacco, alcohol education, the basic function of the human body, abstinence, and reproductive systems. It is the purpose of the course to encourage and guide students to a better understanding of themselves and to contribute to their ability to achieve optimal physical, emotional, and social well being. At this time, there are no prerequisites and all health classes are coeducational.

652 HEALTH 11: Requirement for 11th grade students; .5 cr. It is a continuation of the information presented during the previous year. The primary emphasis is directed toward current health issues critical to the adolescent. Special attention is focused upon the male and female reproductive systems, pregnancy and childbirth, contraception, abstinence, sexually transmitted infections, harmful and violent relationships, as well as HIV and AIDS education. It is the purpose of the course to encourage the students to have a better understanding of themselves and the choices that they make, and the outcomes based on these decisions. The goal is for the students to learn about the consequences before they make choices and decisions. At this time, there are no prerequisites and all health classes are coeducational.

653 PHYSICAL EDUCATION: Requirement for all grade levels; various credit values apply. The physical education objectives are to promote and develop fitness and to teach

fundamental skills in teamwork. Emphasis is placed on functional movements, the development of a life- long fitness plan and developing the 10 general physical skills including: Cardiovascular/ Respiratory Endurance, Stamina, Strength, Flexibility, Power, Speed, Coordination, Accuracy, Agility, and Balance. Students will be offered constantly varied exercises through a moderate intensity level to develop those skills. They will also increase their knowledge on rules of various activities including: floor hockey, flag football, soccer, softball, volleyball, basketball, nutrition, and other fitness activities.

631 STRENGTH AND CONDITIONING: Elective for 9th -12th grade students; .5 cr. This course will improve the students cardiovascular/ respiratory endurance, stamina, strength, flexibility, power, speed, coordination, accuracy, agility, and balance. Students will use exercise bands, weight machines, and free weights. Later in the program students will be introduced to more equipment that can be implemented into the program and will begin development of their own weight training plan that suits their particular lifelong goals. Students will be taught proper techniques of weight lifting to ensure safety.

MATHEMATICS DEPARTMENT

300 MATH LAB 7: Available to all seventh grade students who were not proficient on the Mathematics PSSA. The course is designed to provide extra support with key foundational math skills. These topics could be from previous grades or they could be topics the student is covering in seventh grade but have not yet reached proficiency. Pending teacher availability.

301 MATH LAB 8: Available to all eighth grade students who were not proficient on the Mathematics PSSA with teacher recommendation. The course is designed to provide extra support with key foundational math skills. These topics could be from previous grades or they could be topics the student is covering in eighth grade but have not yet reached proficiency. Pending teacher availability.

302 FUNDAMENTALS OF MATH I: Designed for all 7th grade students. The course focuses on developing the basic skills of addition, subtraction, multiplication, and division of integers, fractions, and decimals as well as fundamental problem solving, communication, and mathematical reasoning skills. This course also has an emphasis on the five modules of the PA Math Standards, which include numbers & operations, measurement, geometry, algebraic concepts, and data analysis & probability.

303 FUNDAMENTALS OF MATH II: Designed for some 8th grade students. The course focuses on further developing fundamental problem solving, communication, and mathematical reasoning skills. This course has an emphasis on the five modules of the

PA Math Standards, which include numbers & operations, measurement, geometry, algebraic concepts, and data analysis & probability. Required career artifact(s) will be completed in this course.

304 PSSA MATH 8: Requirement for all 8th grade students enrolled in Algebra 1.

Emphasis is placed on topics and standards assessed on the eighth grade PSSA exam, which include the number system, expressions and equations, functions, geometry, and statistics and probability.

305 PRE-ALGEBRA 9: Designed for some 9th grade students. This course is for the 9th grade student who is not quite ready for Algebra I. The course focuses on further development of basic math skills and fundamental problem solving, communication, and mathematical reasoning skills.

306 ALGEBRA I: Requirement, available to students in 8th grade and above; 1 cr. (for 9th graders and above) **Prerequisite:** teacher recommendation. Description: This course is the foundation for all high school mathematics courses. It forms the bridge from the concrete to the abstract study of mathematics. Topics include simplifying expressions, evaluating and solving equations and inequalities, and graphing linear and quadratic functions and relations. Real world applications are presented within the course content and a function's approach is emphasized. Students will be required to take and pass the Keystone Algebra I Exam at the completion of this course in order to graduate as per state requirements.

306A ALGEBRA 1A: Available to students in 9th grade; 1 cr. **Prerequisite:**

Fundamentals of Math II. This course requires a teacher recommendation. Algebra I A is the first year in a 2 year sequence covering the same content of Algebra I, however, extra emphasis will be placed on remediation of prerequisite skills and problem solving in order to ensure all students can successfully master the concepts of Algebra. The course (based on a PA State Department of Education approved curriculum consistent with PA Core Standards) is designed to guide students through cooperative investigations of the major topics of Algebra I. The topics are covered through a combination of numerical, analytical, and graphical approaches. Student literacy in the structure and application of Algebra is the goal of the course. Topics include: Operations with real numbers and expressions, linear equations and inequalities, functions, coordinate geometry, and data analysis. Student performance may trigger participation in the Keystone Exam.

306B ALGEBRA 1B: Available to students in 10th grade; 1 cr. **Prerequisite:** Algebra 1 A or Algebra 1. This course requires a teacher recommendation. Algebra I B is the second year in a 2 year sequence covering the same content of Algebra I. See Algebra 1

A for a description of this course. Students will be required to take and pass the Keystone Algebra I Exam at the completion of this course in order to graduate as per state requirements.

307 APPLIED GEOMETRY: Available to students in 10th grade and above; 1 cr. Applied Geometry is designed to help the student discover, learn, and apply Geometry without the concept of formalized proofs. Important concepts are described with words, symbols, models and hands-on activities to help students move from the concrete to the abstract.

308 GEOMETRY: Available to students in 9th grade and above; 1 cr. **Prerequisite:** Algebra II or by teacher recommendation. This course integrates and maintains algebraic skills & concepts, and makes geometric concepts relevant to everyday life. It is the study of points, lines, planes, angles, and geometric shapes, with an emphasis on triangles and quadrilaterals. It will also include concepts of proportionality and similarity. Students will use inductive and deductive reasoning skills to make conjectures and discoveries about Geometry.

309 ALGEBRA II: Available to students in 9th grade and above; 1 cr. **Prerequisite:** Algebra I. This course is a stepping stone of all of the upper level math classes. Topics that are included but not limited to are linear equations, quadratic equations, transformations, complex numbers, roots and radical expressions, exponential models, logarithms, mathematical patterns, series, sequences, permutations and combinations. This class will also demonstrate many real world applications.

310 TRIG/PRE-CALC: Available to students in 11th grade and above; 1 cr. **Prerequisite:** Algebra II and Geometry. This course is designed to cover basic concepts of the six trigonometric functions, including relationships of sides and angles of triangles. The students will be able to complete a unit circle and graph trigonometric functions. The course will also discuss functions beyond an Algebra II level, as well as sequences and the counting principle. It will provide students with the skills and applications needed to be successful in Calculus. **This is a weighted course.**

311 APPLIED CONSUMER MATHEMATICS: Available to students in 11th grade and 12th grade; 1 cr. **Prerequisite:** Must have completed Algebra I. Applied Consumer Mathematics is the bridge between basic math skills and the real world. This course not only teaches and reviews basic skills but also prepares students for math in everyday life.

312 PROBABILITY & STATISTICS: Elective for 10th - 12th grade students; 1 cr. **(College in the High School Course) Prerequisite:** Must have completed Algebra II and Geometry. Students will learn to explore and interpret real data from surveys and simulations. This course will involve the use of mathematics to either help explain natural phenomena or in making decisions. Students will use statistical techniques involving probability, combinations, permutations, central tendency, standard deviation, correlation coefficients and confidence intervals. **This is a weighted course.**

313 CALCULUS: Available to students in 12th grade; 1 cr. **Prerequisite:** Trigonometry. This course will include the study of limits, derivatives, and integrals. It will also involve the exploration of graphs and tables. Applications may be solved graphically, be supported numerically, confirmed analytically, or solved algebraically. **This is a weighted course.**

MISCELLANEOUS

725 HOME SKILLS TECHNOLOGY: Elective for 9th -12th grade students; .5 cr. **Prerequisite:** Algebra I. This course is intended to introduce students to basic everyday skills associated with home maintenance and everyday repairs. Students will learn the foundations of basic carpentry, plumbing, electrical wiring, automotive maintenance and small engine repair. There will be an emphasis on appropriate tool use and safety, as well as general troubleshooting techniques for each project. Activities for a given discipline will consider layout and design, cost analysis, and optimization prior to their start. Grading will come from a mix of weekly quizzes and related projects.

750 YEARBOOK 9 - 12: Elective for 9th - 12th grade students; .5 cr. Students will complete all tasks necessary to design, create, edit, and distribute a quality yearbook for the current school year. Students will use elements of design, layout, and photography. Students must set and meet deadlines for successful yearbook production. This includes scheduling sports/clubs/dances/etc. photos, taking student activity photos - academic and extracurricular- and submitting page layouts and designs on or before deadlines. Students will also be responsible for the overall decision-making, editing, and design of the yearbook, including the yearbook cover. Many projects will require group work and collaboration. Students will be required to attend some after-school games, events, and dances.

949 - 952 CAREERS: Required Course for 9th - 12th grade; .25 cr. each year enrolled at Union (online). This course provides students the opportunity to research a career in which they are interested. Within the research completed, they will discover schools that offer training necessary for the career, length of the program, tuition, job opportunities,

job outlook and current salaries. Required career artifact(s) will be completed in this course.

960 DRIVER EDUCATION: Elective for 9th - 12th grade; .25 cr. (online). This course will provide students with the basics of driving. The course will focus on the mental aspects of driving.

MUSIC DEPARTMENT

700 BAND 7/8: Elective for 7th - 8th grade students. **Prerequisite:** Music lessons or participation in the Elementary Band program. This course will consist of the performance and study of repertoire of instrumental literature with a level of difficulty of 2-4 on a scale of 1 to 6. Students will have the opportunity to perform an appropriate part in ensembles, attend set lessons and perform scales/rudiments from memory. Concert attendance is mandatory.

701 CONCERT BAND: Elective for 9th - 12th grade students; 1 cr. **Prerequisite:** Music lessons or participation in Band 7/8. This course will consist of the performance and study of repertoire of instrumental literature with a level of difficulty of 4-6 on a scale of 1 to 6. Students will have the opportunity to perform an appropriate part in ensembles, attend lessons and perform scales/rudiments from memory. Concert attendance is mandatory.

702 MUSIC 7: Requirement for 7th grade students. Students will learn the basics of Music theory, Music history, musical theater, and choral music.

704 MARCHING BAND 7/8: Elective for 7th - 8th grade students. **Prerequisite:** Music lessons or participation in Elementary Band Program or 7/8 grade Band. This course will consist of the performance and drill, from the repertoire of an audience based literature, placed to motion for football games and parades with a level of difficulty of 3-5 on a scale of 1 to 6. Students will have the opportunity to perform for a variety of events. Band camp attendance is mandatory.

705 MARCHING BAND 9-12: Elective for 9th - 12th grade students; .25 cr.
Prerequisite: Music lessons or participation in 7/8 grade Band or 9-12 grade Band. This course will consist of the performance and drill, from the repertoire of an audience based literature, placed to motion for football games and parades with a level of difficulty of 3-5 on a scale of 1 to 6. Students will have the opportunity to perform for a variety of events. Band camp attendance is mandatory.

707 CHORUS 8: Requirement for 8th grade students. The principles of choral singing continue to be developed as student's progress to singing 3- and 4-part harmonies.

708 CONCERT CHOIR: Elective for 9th - 12th grade students; 1 cr. The course studies choral music from many genres, cultures, and musical periods. Students who participate in this course have the option of participating in various choral festivals, and small ensembles. This group represents our school in performances throughout the community.

710 MUSIC TECHNOLOGY/PIANO/KEYBOARD/GUITAR Elective for 9th - 12th grade students; 1 cr. This course will provide students with fundamental skills of audio recording, sequencing, music notation, sound mixing, and digital composition. Fundamental keyboard/guitar skills will be introduced as well if not already proficient at playing a keyboard/guitar.

SCIENCE DEPARTMENT

400 SCIENCE 7: Requirement for 7th grade students. General content and skills will be covered that will build a foundation for the rest of high school and post high school science courses. Information covered will include the metric system, measuring skills, lab equipment and lab safety, scientific method, matter, and energy, basic chemistry and life science.

401 SCIENCE 8: Requirement for 8th grade students. This course is a survey of the earth sciences, physical science, chemistry, biology and nature of science.

402 PHYSICAL SCIENCE: 10th - 12th grade science course; 1 cr. This course will explore topics related to both chemistry and physics. Topics that will be covered include motion, forces, energy, electricity and magnetism, waves and optics, atoms, the structure of matter, and basic chemical properties and processes. Instructional techniques will include lectures, individual and group assignments, labs and projects.

403 BIOLOGY I: Requirement for 9th grade students; 1.5 cr. This course is required for graduation. Students who take this course will have a lab period every other day. Concepts covered in this course include basic biological principles, chemical basis of life, bioenergetics, homeostasis, cell growth & reproduction, genetics, the theory of evolution and ecology. Students will be required to take and pass the Keystone Biology Exam at the completion of this course in order to graduate as per state requirements.

404 CHEMISTRY I: 10th - 12th grade science course; 1.5 cr. **Prerequisite:** Completion

of Algebra I with a grade of “C” or higher. The first part concentrates on the names of the elements, formula writing, and math skills required for Chemistry and for laboratory work. The second part focuses on theory and such topics as chemical bonding, chemical naming, and chemical reactions. Major class activities include laboratory work which aids the student in the study of science by clearly illustrating the principles and concepts involved. Finally, Chemistry allows students the opportunity to develop techniques and other manipulative skills that students of science must master and to develop the skills the student needs to be successful in post-high-school endeavors.

405 PHYSICS I: 10th - 12th grade science course; 1 cr. **Prerequisite:** Completion of Algebra I with a grade "B" or higher. It is strongly encouraged that students have either taken Algebra II or are currently enrolled. This course is intended to be an algebra based physics course that will prepare students for physics courses at the college level. Topics that will be covered include motion, forces, energy, momentum, rotational motion, fluid dynamics, thermodynamics, periodic motion, sound, optics and electromagnetic waves. Extra emphasis will be placed on applying scientific process and problem solving abilities. Instructional techniques will include lecture, individual and group work, labs and projects. College credit available through Mt. Aloysius College upon successful completion of Physics I and Physics II.

406 ENVIRONMENTAL SCIENCE: 10th - 12th grade science course; 1 cr. **Prerequisite:** Biology I. This course is intended to provide the student with an awareness of the interrelationship between humans and their environment. Topics covered include endangered species, integrated pest management, forestry, ecosystems, and conservation of natural resources.

408 BIOLOGY II: 11th - 12th grade science course; 1 cr. **Prerequisite:** Minimum of a “B” in Biology I and Chemistry I and successful completion of the Keystone Biology Exam by scoring proficient or advanced. This course is intended for students who wish to pursue a degree in science and/or a health-related field. Topics such as molecular biology, cellular biology, genetics, ecology and biotechnology will be covered extensively in this course, as well as an introduction to anatomy. Investigative techniques are used to develop skills needed for college-level biology courses. Some animal dissection is required. **This is a weighted course.**

409 CHEMISTRY II: 11th - 12th grade Science course; 1.5 cr. **Prerequisite:** Chemistry I with a double lab period and must earn a “C” or higher. Chemistry II is similar to a first-year college chemistry course with an extensive emphasis on the mathematics of chemistry. This course examines such topics as chemical reactions, chemical theory, quantum mechanics, gases, solution chemistry, and acids and bases. Major class

activities include laboratory work and the development of the skills the student needs to be successful in post-high-school endeavors. **This is a weighted course.**

410 PHYSICS II: 11th - 12th grade science course; 1 cr. **(College in the High School Course) Prerequisite:** Completion of Physics I with a grade of “C” or higher. This course is intended as an extension of Physics I. Topics to be covered include electrostatic forces, electric current, series and parallel circuits, magnetism, electromagnetic induction, nuclear, modern, and atomic physics. This course is highly encouraged for any student pursuing further education in engineering, physical sciences or medicine. College credit available through Mt. Aloysius College upon successful completion of Physics I and Physics II. **This is a weighted course.**

411 ASTRONOMY: Elective for 9th - 12th grade students; .5 cr. Examine the motions of the earth, moon and the planets and their effects on the appearance of the sky; the nature of the sun and the planets. Students will also differentiate between asteroids and comets and how they result in meteors and meteorites.

412 FORENSICS: Elective for 9th - 12th grade students; .5 cr. This course is designed to introduce students to crime scene forensics. Major topics will include fingerprint, DNA, hair, fiber and blood evidence; tool marks; powder (chemicals); and basic crime scene analysis.

413 HONORS CHEMISTRY: 12th grade science course; 1.5 cr. **Prerequisite:** Completion of Chemistry II earning a “B” or higher. Honors Chemistry is similar to a first-year college chemistry course and is intended as an extension of Chemistry II with studies in detailed chemical bonding, acids and bases, molarity, redox reactions, reaction kinetics, chemical equilibrium, and organic chemistry. Laboratory exercises are integrated with classroom learning. **This is a weighted course.**

419 PET - ENGINEERING DESIGN (Odd Years Only): 9th - 12th grade; .5 cr. This course is intended to introduce students to the design process used in engineering, architecture and other fields of technology. Tools used will include digital micrometers, 3D printers, laser cutters, and computer numerical control (CNC) routers. Methods of design will include mechanical drawing, CADD, architectural design, bridge and structural design, and project design. Many of the concepts covered in this course will be used in subsequent engineering and technology courses. In addition, concepts covered in this course can be applied towards students earning a Robotics Technician Pre-Apprenticeship Certificate issued by the Pennsylvania Department of Labor and Industry for those students who elect to obtain this certification. This is a project-based course. Industry for those students who elect to obtain this certification. This is a

project-based course.

420 PET - ENGINEERING PROCESS (Odd Years Only): 9th - 12th grade; .5 cr.

Prerequisite: Completion of PET 419. This course is intended to introduce students to the various fields of engineering and related technologies. Students will learn about the various fields of engineering, and then conduct a project related to that field. Projects will include bridge building and testing (Civil Engineering), material testing (Mechanical Engineering), energy analyses (Environmental Engineering), electrical circuits (Electrical Engineering), and rocketry (Aeronautical Engineering). Projects will involve project design, cost analysis, optimization and identifying and solving problems. In addition, concepts covered in this course can be applied towards students earning a Robotics Technician Pre-Apprenticeship Certificate issued by the Pennsylvania Department of Labor and Industry for those students who elect to obtain this certification. This is a project-based course.

421 PET - ANALOG AND DIGITAL CIRCUITS (Even Years Only): 9th - 12th grade; .5

cr. This course is intended to strengthen student understanding of the use of electricity in technology. Topics covered include the foundations of analog and digital electronics. Students will learn about Ohm's Law through the analysis of analog series and parallel circuits. Digital electronics will cover binary/decimal conversions, karnaugh mapping & truth tables, boolean algebra, and applications of deMorgan's Theorem to simplify complex digital circuits. Circuit construction techniques as well as breadboarding will be covered. Students will also gain experience using open source variants of p-Spice to prototype and analyze circuits. In addition, concepts covered in this course can be applied towards students earning a Robotics Technician Pre-Apprenticeship Certificate issued by the Pennsylvania Department of Labor and Industry for those students who elect to obtain this certification. This is a project-based course.

422 PET - MICROCONTROLLERS AND ROBOTICS (Even Years Only): 9th - 12th

grade; .5 cr. **Prerequisite:** PET 421 Students will study automated systems by focusing on system design and interfacing via the arduino microcontroller. Basics of computer programming are not required but will be taught as needed. Students will prototype their own micro combat robot which will scale into a working full-sized prototype for the Western Pennsylvania BotsIQ combat robotics contest. In addition, concepts covered in this course can be applied towards students earning a Robotics Technician Pre-Apprenticeship Certificate issued by the Pennsylvania Department of Labor and Industry for those students who elect to obtain this certification. This is a project-based course.

424 STEAM (Science, Technology, Engineering, Arts & Mathematics) WORKSHOP: **Requirement** for 8th grade. Students will explore the fundamentals of computer aided drafting and design, electronics, and microcontroller programming and gain experience utilizing 3D printing and laser engraving technologies. This course will have an applied focus on simple machines, electricity and magnetism, optics and sound.

448 ANATOMY/PHYSIOLOGY: Elective for 10th - 12th grade students; .5 cr.
Prerequisite: Successful completion of Biology I. Students will study the structure of human body systems, including skeletal, muscular, nervous, cardiovascular, and digestive. Diseases and disorders that affect organs will be introduced. This class is geared towards students planning on pursuing a career in a health field.

449 EXERCISE SCIENCE AND NUTRITION: Elective for 9th - 12th grade students; .5 cr. Students will be introduced to human anatomy. Focus will be on exercise physiology as well as nutrition. The aim of the course is to improve the health of students, guiding them to an understanding of better choices of exercise and diet.

SOCIAL STUDIES DEPARTMENT

200 WORLD STUDIES 7: Requirement for 7th grade students. Students will learn about various countries around the world. This will focus on the major historical events of each country, the effect these events have had on history, why this country is important on the world stage and finally how this country interacts with the United States.

201 SOCIAL STUDIES 8: Requirement for 8th grade students. In-depth examination of American citizenship, understanding the national government, political parties, legal rights and responsibilities, and the role of the United States in today's world. Particular attention will be given to the student's responsibilities to their country, state or local government. Pennsylvania History examines the evolution of Pennsylvania as a historical Keystone of the United States. This course focuses on geography, history, cultural, political, economic, and social development of our state from the hunting grounds of Native Americans into the industrial heart of the nation. Required career artifact(s) will be completed in this course.

202 AMERICAN CULTURES I: Requirement for 9th grade students; 1 cr. United States history from 1492 – Civil War serves as an introduction to American History. This course investigates the rise of the United States from pre-colonial times through the Civil War. Major class activities include discussions and research projects.

203 AMERICAN CULTURES II: Requirement for 10th grade students; 1 cr.

Prerequisite: American Cultures I. United States history from 1865 to present is a continuation of all previous United States History courses. It focuses on topics and events in the development of the U.S. from World War I to Present day historical events.. Major class activities include discussion and research.

204 AMERICAN GOVERNMENT/ECONOMICS Requirement for 11th grade students; 1 cr. **Prerequisite:** American Cultures I and II. This course will focus on the structure and function of the American Government. The course will focus on the role of each branch of the American Government and the effects of the Constitution on America. This course will provide students with a better understanding of money management concepts for student financial success. It will focus on consumer economics topics from savings and checking accounts to borrowing and investing money, consumer purchasing, income taxes and money management. Required career artifact(s) will be completed in this course.

205 WORLD CULTURES: Elective for 10th - 12th grade students; 1 cr. **Prerequisite:** American Government. World cultures is a concentrated study of the origin and development of Western Civilization. An in-depth examination of the spread of ancient cultures from the Egyptians and Greeks through the 20th century is covered in this course. The development of political, social, and economic conditions is stressed as well. In addition, World Cultures promotes evaluating the influence of past events on our modern society as well as understanding one's own culture through examining other cultures.

211 HISTORY IN THE HEADLINES 9-12: Elective for 9th - 12th grade students; .5 cr. This course is designed to look at current issues and events that are occurring around the globe, in the United States, and within our community, and the impact that they will have on our lives and our country. We will use a variety of sources to gather topics, i.e. news programs, newspapers, magazines, the internet and our own classroom debates.

212 HOLOCAUST: Elective for 9th - 12th grade students; .5 cr. The Holocaust course will cover the problems Germany faced after WWI with the Weimar Republic. The course will investigate the rise of Hitler, the Holocaust, and problems with the Muslims & Israelis. Major class activities include discussion and research.

216 PSYCHOLOGY: Elective for 10th - 12th grade students; .5 cr. This semester-long course deals with man's understanding of himself. Designed, primarily, as an introductory course and serves as a primer for college prep students. A basic knowledge of how and why man does what he does enhances his interpersonal relationships. Core topics

include, “States of Consciousness”, “Sensation and Perception”, “Cognition”, “Personality” and “Abnormal Psychology”. In addition to the fundamental concepts of Psychology, the course offers more in-depth study as students initiate research of both individual and collective interest. Students utilized this online platform, reference their textbook, and meet with the instructor to cover the basics of Psychology.

217 THE HISTORY OF THE MEDIA AND TELEVISION: Elective for 9-12th grade; 1 cr. This course is designed to look at the influence the media has had on U.S. History. It will examine the use of the media to influence people, groups and other historical events as well as the different forms of media that have evolved over the years. This class will also look at advertising and the influence it can have on society and purchases made by people. Finally, this class will look at television and the role it has had in portraying historical events and if they are accurate or biased in one way or another. Our goal in this class will be to eventually create a school newspaper, news reports, blog spots, FREE advertisements for local businesses and events and coverage of school events including concerts, games etc.

218 MILITARY HISTORY: Elective for 9th -12th grade; .5 cr. Military History will focus on wars the United States has been involved in since the Revolutionary War. The class will look at the impact of these events on our nation’s history and it will also look at the causes, events, major leaders (military and political) and the results of these wars.

219 MULTIMEDIA HISTORY: Elective for 9th - 12th grades; .5 cr. Multimedia History is a class designed to allow students to showcase their technological creativity while researching various topics throughout history. Students will select topics that are of interest to them and create informative and creative multimedia presentations on these topics that are linked to current or past historical events.

220 WORLD RELIGIONS: 9th - 12th grade; .5 cr. Religion has been a monumental influence in the shaping of history in every civilization. This class will study the nine major religions of the world, Judaism, Christianity, Islam, Hinduism, Buddhism, Sikhism, Confucianism, Shinto and Taoism. Students will research and analyze the shared cultural regions and commonality of theology, beginning with the spiritual traditions of India, moving to aspects of faith in Confucian society, then on to the Abrahamic-based religions of Judaism, Christianity and Islam. Student assessment includes: Key Vocabulary, Key Concepts, Identifying historical individuals, geographic locations of various faiths (Past and present), research projects with presentation, exploration of web sites.

221 WORLD GOVERNMENTS: 9th - 12th grade; .5 cr. Explores the government and politics of some of the major nations in the world as well as developing nations. Political

structures, functions, processes and policies are compared with each other. Particular consideration is given to contemporary world problems.

BUSINESS DEPARTMENT

800 RESPONSIBILITIES AND APPLICATION IN THE DIGITAL AGE: Requirement for 7th grade students. This course will help students transition to high school, and begin to prepare them for the demands they will encounter in this setting. Students will learn about digital literacy and responsibility, cyber citizenship, appropriate use of social media, study skills, time management, and other effective practices for student success. Required career artifact(s) will be completed in this course.

803 COMPUTER APPLICATIONS FOR BUSINESS: Elective for 9th - 12th grade students; 1 cr. This course is designed to introduce intermediate, as well as advanced, concepts in use of a computer as a business and personal tool. Students will complete activities related to managing a business from an entrepreneurial or managerial perspective, focusing on word processing, spreadsheets, database management, and desktop publishing. These applications will include, but are not limited to, Google Docs and Sheets and portions of the Microsoft Office Suite. This is an essential class for the college-bound student and the school-to-work student.

808 ACCOUNTING: Elective for 9th - 12th grade students; 1 cr. This course is designed to introduce the student to basic accounting concepts of a proprietorship, partnership, and corporation. Students will plan, record, analyze, and interpret financial transactions and records of a service and merchandising business as it relates to the accounting cycle. In this course, manual procedures of accounting will be emphasized, however some computer aided accounting procedures will be presented.

809 INTRODUCTION TO COMPUTER PROGRAMMING: Elective for 10th - 12th grade students; 1 cr. Students will focus on the planning and organizing of computer programs and learn the role of computation in problem-solving. Students will learn the basic procedural techniques of computer programming with focus on variables, data types, selection, iteration, and functions in program development. Students will gain the ability to write programs that allow accomplishment of useful goals.

810 DIGITAL PUBLISHING AND MEDIA PRODUCTION I: Elective for 9th - 12th grade students; 1 cr. Students will learn the foundations of Visual Design (Foundations of Design and Print Production) and begin to study one or more of the following digital careers: Digital Video (Video Design and Production), Digital Design (Web Design), and

Interactive Design (Animation). Many projects will require group work and collaboration.

811 DIGITAL PUBLISHING AND MEDIA PRODUCTION II: Elective for 10th -12th grade students; 1 cr. **Prerequisites:** minimum of a “C” in Digital Publishing and Media Production I. Students will advance study in the following digital careers: Digital Video (Video Design and Production), Digital Design (Web Design), and Interactive Design (Animation). Many projects will require group work and collaboration.

812 DIGITAL PUBLISHING AND MEDIA PRODUCTION III: Elective for 11th -12th grade students; 1 cr. **Prerequisites:** minimum of a “C” in Digital Publishing and Media Production I and a “C” In Digital Publishing and Media Production II. Students will advance study in the following digital careers: Digital Video (Video Design and Production), Digital Design (Web Design), and Interactive Design (Animation). At this level students will take a leadership role in collaborative video projects. Many projects will require group work and collaboration.

Clarion County Career Center

970 Allied Health Science (5 half days/week - 2 semesters, 3 credits)

This curriculum is designed for all individuals interested in medical careers. The program includes background information in medical, nursing, dental, laboratory, imaging and rehabilitative occupational areas. Individual course selections include dental assisting, nursing assisting, and medical assisting. Nurse’s Aide **certification** is available upon completion of related programs. Students who continue their education at the Career Center’s LPN program will have 40 credit hours.

972 Automotive Technology (5 half days/week - 2 semesters, 3 credits)

Students can pursue the eight Automotive Service Excellence (ASE) certifications. Areas to be covered include engine repair, automatic and manual transmissions, suspension and steering, brakes, electrical/electronic systems, heating/air conditioning, and engine performance. Students may also be **certified** by NATEF and as a state license inspector.

974 Computer Networking/Information Technology (5 half days/week - 2

semesters, 3 credits) This program will prepare individuals with the technical skills required to support networks and network users. Possible skill development includes network design, security, and computer repair. Possible **certifications** include A+, Network+, and CISCO. Certifications may be eligible for college credits.

Cooperative Vocational Education

Cooperative education or “co-op” is a method of training that combines vocational instruction with the real world, on-the-job experience. Qualified seniors may spend

one-half day, or its equivalent, on the job. The co-op coordinator will assist the student in finding a job. Students must maintain acceptable grades at their sending school, have good attendance, and provide their own transportation to and from the work site. The student gains valuable experience, improved work ethics, and a paycheck.

975 Construction Technology (5 half days/week - 2 semesters, 3 credits)

Students enrolled in this program receive training in carpentry, electrical, plumbing, roofing, window and door installation, siding, blueprint reading and masonry. Every year a modular house is built. This gives hands-on experience with a full-scale project. Skills learned may also be of value when owning a home or rental property. OSHA certification may be obtained.

976 Cosmetology Styling Academy (5 half days/week - 2 semesters, 3 credits)

The Academy's curriculum consists of hair styling, permanent waves, hair coloring, bleaching, straightening, hair testing and scalp care. Also included in this program is instruction about the skin, which includes facial treatments and cosmetics. Students learn proper manicuring methods as well as sales theory, maintaining client's hair record cards, state laws and diseases of the skin. Students may be eligible to become a **certified** cosmetologist after completing 1250 hours of training.

977 Culinary Arts & Hospitality (5 half days/week - 2 semesters, 3 credits)

Students in this program can prepare themselves with the training necessary for entry-level jobs in the food service industry. Skills taught include commercial food preparation, knife techniques, cake decorating and sanitation. **Certification** by Servsafe is offered. Job possibilities include prep cook, baker, waiter or waitress.

978 Diesel Technology (5 half days/week - 2 semesters, 3 credits)

The skills students learn in diesel technology include but are not limited to preventative maintenance, electrical troubleshooting, air system troubleshooting, engine and drive component disassembly, brake troubleshooting, air conditioning, and basic welding. Included in this program is customization of trucks and repair work.

980 Police Science (5 half days/week - 2 semesters, 3 credits)

Police Science prepares students for a variety of exciting careers in criminal justice. Criminal justice and private security is studied the first year. Second year students work on Emergency Dispatch certification. Third year students concentrate on the First Responder certification. Physical fitness is highly stressed. Students are taught self-defense as well as investigating techniques. Students who complete the three-year program with a "B" average and instructor's recommendation will receive **six credits** from Butler County Community College when enrolling into the criminology program.

981 Welding & Fabrication (5 half days/week - 2 semesters, 3 credits)

Students are trained to become successful in the welding fields using state of the art equipment. The different types of welding include Oxy-acetylene, arc, MIG, TIG, pipe, and dual shield. Plasma cutting, blueprint reading and pipe welding also will be taught. New learning stations include a robotic welder and a CNC plasma cutter. Certification from the American Welding Society may be obtained.