

ST. MARYS AREA HIGH SCHOOL

COURSE DESCRIPTIONS

2017-18

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RESPECT - HONOR - POTENTIAL

BUSINESS EDUCATION

ACCOUNTING 1 (Grades: 10, 11, 12---Credit: 1)

Accounting I is the study of the basic accounting procedures: fundamentals of maintaining accurate financial records for a business or individual. This course is recommended for students pursuing post secondary education in business, as well as, students entering the workforce.

BUSINESS LAW (Grades: 11, 12---Credit: 1/2)

Business Law is a course designed to give students the knowledge and understanding necessary to deal with the day-to-day legal problems encountered by consumers in our business oriented society. The course informs the students of their rights and obligations under the law as well as the need for law in an organized society.

PERSONAL FINANCE (Grade: 11, 12---Credit: 1/2) (63 hours)

Attention will be devoted to the major areas in which consumers need help in making wise decisions in – budgeting money, using credit, insurance, buying a house or car, banking services, filing tax returns, and planning and investing for retirement. From the study of this course, the student should acquire information and develop the ability needed to apply problem-solving methods to economic matters in daily life while understanding the role of the consumer.

SPORTS AND ENTERTAINMENT MARKETING (Grades: 10, 11, 12---Credit: 1/2)

This course will help students develop a thorough understanding of marketing concepts and theories that apply to sports and sporting events. The topics covered will include basic marketing, target marketing and segmentation, sponsorship, event marketing, promotions, sponsorship proposals, and implementation of sports marketing plans. This course will also deal with promotion plans, sponsorship proposals, marketing plans, and event evaluation and management techniques. In addition, the course will incorporate an innovative experiential learning program that provides an effective link between the education process and the school's athletic department. Students taking sports marketing will have the opportunity to participate in DECA.

INTRODUCTION TO WEB PAGE DESIGN (Grades 9, 10, 11, 12---Credit: 1/2)

This course is intended to provide students with an overview of the tools available to design and develop web pages for the Internet using WordPress. Students will learn about the following features: blogs, posts, categories, tags, images, videos, manage comments, manage links, widgets, sidebars, geotagging, themes, customization, pages, forms, and managing statistics. Student will also learn about options for hosting the site and upgrade options using WordPress. Lecture and hands on projects and exercises will cover these topics.

COMPUTER APPLICATIONS (Grades: 9---Credit: 1/2)

The course is designed to help students learn about the functional use of computers. The intent is to teach the use of three common computer applications: word processor, database, and spreadsheet. A brief overview of Microsoft Windows will be included. Some time will also be devoted to the use of the Internet as a resource tool and students can expect to do a presentation using power point.

DIGITAL INFORMATION LAB (Grades: 10, 11, 12 – Credit: ½)

This course is designed to provide students with an opportunity to pursue advanced or specialized computer literacy development. It hopes to attract motivated and ambitious learners interested in broadening their understanding and use of technology. The class will be individually designed to allow students to pursue a topic of interest or an area of expertise. The teacher will serve as a facilitator assisting the student by providing guidance, supervision, and oversight rather than instruction. Students will be expected to work independently or as part of a team. The course has been developed for students with moderate to advanced computer proficiency skills and are interested in pursuing a computer field at the post-secondary level.

MARKETING ESSENTIALS (Grades: 10, 11, 12---Credit: 1)

This is a full year course designed to introduce students to the world of marketing and distribution through instruction in concepts relevant to the flow of industrial and consumer goods. Students will understand how our distribution systems play a part in the economy of the United States. National as well as International marketing theories will be presented, and business ethics will be conveyed to students and stressed in relation to personality development, human relations, salesmanship, promotion, and job interviewing. This is a foundation course designed to be comprehensive for students interested in pursuing a career related to marketing and distribution. Students participating in this course are eligible to participate in DECA, a student vocational organization.

ENGLISH

Students must complete at least four credits of English as well as the required credit value in Speech during their four years in high school. Students will be placed by ability in English based upon classroom performance, PSSA scores, and Keystone results.

ENGLISH I – Average or High (Grades: 9---Credit: 1)

This course is designed to continue your development of reading and writing skills. Emphasis is placed on grammar usage, mechanics, and writing skills to assigned literary units as well as literary terminology.

ENGLISH II –Keystone, Average, or High (Grades: 10---Credit: 1)

This is a continuation of skills recognized in English I. In addition, research skills are developed and practiced through the publication of a written term paper.

ENGLISH III- Keystone or Average (Grades: 11--Credit: 1)

This course is designed to continue the development of reading, writing, speaking and listening skills. Units of American Literature are approached chronologically, so students will explore the progress and changes in American writing and philosophy. Emphasis is placed upon strengthening literacy analysis skills and writing in various modes with attention to grammar and usage.

ACCELERATED JUNIOR ENGLISH (Grades: 11---Credit: 1) Prerequisite: a minimum grade of 94% in the preceding course and teacher recommendation

AP English is designed for students with above-average ability in English who are planning to attend a four-year college or university. The course will provide students with a background in rhetoric, syntax, and diction in essay writing, and skilled reading and interpretation of literature. This AP course will focus on American Literature and preparation for the Advanced Placement Test in Language and Composition. Students who score well on this test may earn up to three college credits through the University of Pittsburgh at Bradford or Mount Aloysius College.

ENGLISH IV –Average or High (Grades: 12---Credit: 1)

This course is designed to continue the development of speaking, listening, reading and writing skills. One major component of the course is reading and analyzing British, Western and World literature, exploring challenging literature with greater skill for lifetime enrichment and recognizing literary elements and devices. A second major component includes writing persuasive/argumentative, narrative and informational compositions. In conjunction with both objectives is enhancement of each student's reading and writing vocabulary.

CTE ENGLISH – (Grades: 12 --- Credit: 1)

This course is designed to be a classroom based English course targeting seniors in any of the CTE curriculum areas. The content will focus on English as student will experience and utilize it in their specific career areas. Emphasis will placed upon strengthening and enhancing existing English skills.

SENIOR AP ENGLISH (Grades: 12---Credit: 1)

Prerequisite: a minimum grade of 94% in the preceding course and teacher recommendation

AP English is designed for students with above average ability in English and who are planning to attend a four-year college or university. The course will provide students with a background in advanced writing skills, active discussion skills, analytical thinking and interpretation of literature. The Senior AP course will focus on English and Western literature and preparation for the Advanced Placement Test in Literature and Composition. Students who score well on the test may earn up to three college credits.

CREATIVE WRITING I and II (Grades: 10, 11, 12---Credit: 1/2)

Are you looking for a productive, enjoyable, mind-stimulating opportunity for self-expression? Then study the essay, poetry and the short story. The opportunities for expressing yourself will be numerous. What is your personal message? Here is your chance to share your thoughts in an essay, poetry, and evolution, its definition and its types - informal and formal - through the study of essays written by the masters. You will also learn about the structure of short stories and poetry and how they differ from other types of writing by studying some of the best short stories and poetry our culture has produced.

POETRY REVIEW/LITERARY NON- FICTION (Grades: 10, 11, 12---Credit: 1/2)

The Poetry Review segment of this course will offer students a chance to expose themselves to various forms and styles of poetry through reading and analysis and try their hands at writing within these styles. Poetry readings and poetry “slams” requiring student participation will be included. This course is designed for the student who enjoys writing and is looking for positive feedback on his or her work. Get Real! The **Literary Non Fiction** segment of this course will focus entirely on non-fiction texts. Students will delve into non-fiction texts and create their own memoirs and essays. Authors may include Bill Bryson, Linda Tirado, Malcolm Gladwall, and Bernd Heinrich

INTRODUCTION TO MASS MEDIA (Grades: 9, 10, 11, 12---Credit: 1/2)

This elective course will explore the abundant resources currently available in communications media. The course will focus on print and broadcast media. Students will be exposed to the basics of media productions. While production will be the main focus, students will learn early level production techniques.

MASS MEDIA I (Grades: 10, 11, 12---Credit: 1/2) Prerequisite: Intro to Mass Media

This one half credit course will be a continuation of Intro to Mass Media with a focus on production. Students will be expected to utilize the studio and its resources to produce programming. This course can be taken at any time after the successful completion of Intro to Mass Media.

MASS MEDIA II (Grades: 11, 12---Credit: 1/2) Prerequisite: Mass Media I

This course is designed for the self-motivated student. Student input about programming will be critical as this class will be responsible for the operation of a fully functional TV studio. The student will be expected to help produce a variety of programs including, sporting event broadcasts, a school news show, and any additional programs that may arise through the course of the school year. Students should be aware that this course will require extensive involvement before, during, and after the school day.

DRAMA I (Grades: 10, 11, 12---Credit: 1/2) Prerequisite: Theatre Art

Drama I is designed for students who have a sincere appreciation and respect for the theatre and have a desire to convert that appreciation into a talent. Drama I will focus on the basics of acting, stage presence, and the theatre. Various activities including monologues, dialogues, improvisations, skits, and plays will rouse the student's acting skill. A variety of plays will be analyzed ranging from Shakespeare to modern American drama. Theatre Arts is a prerequisite for this course; however, a professional letter of recommendation or a resume of the student's experience may be submitted.

DRAMA II (Grades: 10, 11, 12---Credit: 1/2) Prerequisite: Theatre Arts or Drama I

Drama II is a continuation of Theatre Arts I and Drama I providing the student with a program of study to develop acting skills, stage presence, and theatre knowledge on an **intermediate level**. The student is expected to possess a basic level of acting experience, theatre knowledge, and strong theatre discipline. Drama II is designed for the dedicated and mature actor seeking challenging activities that will expand his/her basic acting experience and theatre knowledge and elevate him/her to the next level.

DRAMA III (Grades: 11, 12---Credit: 1/2) Prerequisite: 2 of Theatre Arts, Drama I or Drama II

Drama III is a continuation of Theatre Arts I, Drama I, and Drama II incorporating an **advanced study** of techniques and skills in acting. Drama III is designed for the very serious actor and mature student who possesses a strong desire to excel on stage. The student will be challenged to attain his/her optimum natural stage presence through individual and group activities. The student will further develop his/her individual acting skills, leadership skills, communication skills, intrapersonal skills, and interpersonal skills when producing meaningful dramatic productions with other actors.

DRAMA IV (Grades: 11, 12---Credit: 1/2) Prerequisite: Drama III

Drama IV is a continuation of Theatre Arts I, Drama I, Drama II, and Drama III. Drama IV is a challenging course designed for the individual who is a very dedicated actor and an exceptionally responsible student. The student will perform on a **superior level** and will reach new heights both on stage and as an individual. This course will require the student to embrace and participate in the complexities of a full-scale, full-class production in a leadership capacity.

SOPHOMORE SEMINAR (Grades: 10---Credit: 1/2) Required

Speech is a required portion of this course designed to make the student aware of the importance of speech in communication by developing the skills to inform, to persuade, to explain, and to entertain in informal and formal speech situations. The required career portion of this course focuses on making an informed post-secondary plan. Students are introduced to useful resources to utilize in developing their career and educational plans.

ADVANCED SPEECH (Grades: 11, 12---Credit: 1/2) Prerequisite: Sophomore Seminar

This full semester long course will give students the opportunity to build on skills they learned in Speech. This course is designed for students who recognize the importance of communication and who wish to advance their study through challenging course work. Students will continue work on both formal and informal speaking and have the opportunity to analyze some of the great speakers of all times. Various platforms will be used to enhance student's 21st century communication skills. This class will further develop student's skills to be the leaders of tomorrow.

THEATRE ARTS (Grades: 9, 10, 11, 12---Credit: 1/2)

Theatre Arts is an introduction to the theatre and is directed towards the student that wishes to develop confidence and acting skills through stage activities and acting exercises. Students will sample a variety of plays from early Greek theatre to modern musicals as well as participate in motivational exercises, individual and group pantomimes, improvisational situations, teenage-issue skits, and monologues. Respect and collaboration are key in this fast-paced, teamwork oriented course.

STAGECRAFT (Grades 10, 11, 12 – Credit: 1/2)

A course designed to expose students to basic theatrical production elements and design. During the course of the semester students will learn basic stagecraft techniques including hanging and focusing lighting instruments, basic light board operation, set construction techniques, sound cue production and operation, fundamentals of prop and costume gathering and storage, stagehand and backstage crew theory and practice, and stage management. In addition, students will be exposed to basic design practices and will have the opportunity to follow a production.

NEWS WRITING & REPORTING/DEBATE (Grades 9, 10, 11, 12---Credit: 1/2)

The **News Writing and Reporting** segment of the course will explore the style of news writing. Students will learn how to gather news and create a news story for different mediums (newspaper, magazine, broadcast television, etc). The **Debate** segment of the course teaches the art of discussion and argument. The class will provide instruction and practice in roundtable discussion and formal debate through the use of Socratic Seminar, research, and various modes of writing. The class will begin with informal discussions, which teach critical thinking and communication skills, and move toward formal debate. Students who select this class should have an interest in past and present social and political issues as well as a general interest in sharing knowledge and opinions. The course requires verbal participation, reading, writing, research, and group work.

MYTHOLOGY (Grades 9, 10, 11, 12---Credit: 1/2)

In this Mythology course, you will learn the stories of the gods, goddesses, myths, and culture of Ancient Greece including but not limited to the Titans, the gods of Mt. Olympus (Zeus, Poseidon, Hades, etc.), the minor gods and goddesses (Morpheus, Nike, the nine Muses, etc.), the monsters/creatures of Greek mythology (Minotaur, Scylla, Harpies, etc.), and the history of the first Olympic games. Modern films (ex: *Clash of the Titans*) may be used in the class. You will be introduced to how Greek mythology can be seen today in everyday life. Various creative projects will accompany the mythology readings.

A BRIEF HISTORY OF AMERICAN FILM/CONTEMPORARY NOVEL (Grades 9, 10, 11, 12-Credit: 1/2)

The Brief History of American Film segment of the course will focus on the history of American Film and the impact American cinema has had on society. We will critically analyze how American cultural and social conflicts are portrayed and worked out in popular films. By watching, discussing, and writing about these films, we will examine how motion pictures create a window into modern American society and explore opportunities to engage in the filmmaking process. The Contemporary Novel segment of the course is recommended for students with a bona fide interest in reading and those students who need to develop reading and comprehension skills. This elective course will involve the reading of two novels. One will be selected by the designated English teacher, while the other novel will be agreed upon by the students in this class. Similar to a book study, the class will involve the analysis of the plot, the characterization, and point of view to name only a few literary elements. Keep in mind that we are not strictly limited to the previously mentioned terms.

FINE ARTS – ART

Art electives are available to all students as long as prerequisites and grade restrictions are met.

INTRODUCTION TO ART (Grades: 9, 10, 11, 12---Credit: 1/2)

Introduction to Art is a half (1/2) credit course elective offered to all students. It is a survey art class that will touch on drawing techniques, drawing media, basic composition and perceptual development. Students will have introduction lessons in perspective drawing, figure drawing, portrait drawing and still life drawing. There is no prerequisite for Introduction to Art.

ART II (Grades: 10, 11, 12---Credit: 1) Prerequisite: Introduction to Art

Art II is an advanced level art program for students successfully completing Introduction to Art. It will advance the student's awareness by instructing him/her in a higher level of visual perception, perspective drawing and media usage. The students will be introduced to airbrush commercial art, acrylic painting, art history and sculpture.

ART III (Grades: 11, 12---Credit: 1) Prerequisite: Art II

Art III will involve the student in many of the commercial aspects of art emphasizing, visual communications and design. Project areas will be poster making, lettering, newspaper advertising, house design, and fashion design.

ART IV (Grades: 12---Credit: 1) Prerequisite: Art III

When students have been acquainted with art processes and thought and have developed proficiency, they are ready to select areas of personal interest. Projects will be more involved and run for greater lengths of time. An emphasis on aesthetic philosophy will develop with the students and their work. Project areas are enameling, printmaking, jewelry, mixed media painting, macramé, sculpture, photography, ceramic work, and airbrush.

CERAMICS (Grades: 9, 10, 11, 12---Credit: 1/2)

Ceramics is a course involving the use of clay to make functional and non-functional objects. Emphasis will be placed on original work, and students will have a product of their own making. Ceramics will include the following topics: casting, raku, hand construction, wheel throwing and glazing.

CAREER ARTS (Grades: 9, 10, 11, 12---Credit: 1/2)

Career Arts is designed to acquaint our students with basic art skills. These are skills that may assist a person in decorating or designing a room, weaving, signs, posters, jewelry and simple toys.

INDEPENDENT STUDY ART (Grades: 11, 12---Credit: 1/2) Prerequisite: Intro to Art and Art II

An independent study program is available only to select students, upon recommendation of the teacher to the high school principal. A formal education plan with goals and objectives must be submitted to the building principal. This course is to be selected as an optional course and students are cautioned that this course may not be counted as part of the minimum graduation requirements.

FINE ARTS - MUSIC

CHORUS (Grades: 9, 10, 11, 12---Credit: 1/2)

Chorus provides an opportunity to perform in Christmas and Spring concerts. These performances consist of different styles and types of music and provide the display of special talents. Chorus members have the opportunity to try out for District Chorus. This course may be taken for a semester or a full year.

MUSIC APPRECIATION/BEGINNING MUSIC THEORY (Grades: 9, 10, 11, 12---Credit: 1/2)

The **Music Appreciation** segment of this course will introduce the student to the vast musical literature from the past to the present. Students will study elements of music, styles, composers, and periods of history. This course will cover topics of music for the college and non-college bound student. The **Beginning Music Theory** segment of the course will provide a sequential instruction covering fundamental elements of music theory and their application to music literature of the past and of today.

INDEPENDENT STUDY MUSIC (Grades: 11, 12---Credit: 1/2) Students must complete both Music Theory and Music Appreciation before being eligible for Independent Study.

An independent study program is available only to select students, upon recommendation of the teacher to the high school principal. A formal education plan with goals and objectives must be submitted to the building principal. This course should be selected as an optional course and students are cautioned that this course may not be counted as part of the minimum graduation requirements.

CONCERT BAND (Grades: 9, 10, 11, 12---Credit: 1/2)

Band is a course that explores the music written for the band idiom. The music ranges from classical orchestral transcription to Broadway show tunes. Band members have the opportunity to apply for District and IU 9.

ROCK & ROLL- BEATLES TO BRUCE SPRINGSTEEN/AMERICAN MUSICAL THEATRE (Grades: 9, 10, 11, 12---Credit: 1/2)

The **Rock and Roll** segment of this course is an introductory course which traces the history of Rock N' Roll. This history will be viewed in the context of the political, historical, demographic, cultural and technological forces at work in the modern and post-modern world. The course will also encourage the development of qualitative and quantitative listening skills as well as incorporating extensive use of video or audio recorded musical examples. Students are expected to complete listening and research assignments. The **American Musical Theatre** segment of this course is an introduction to musical theatre history for students entertaining their first musical experience in the genre. The course will cover the exploration and study of American Musical Theatre and its importance in American music history. The course will explore musical theatre through text, video and recordings.

GUITAR LESSONS 1 (Grades: 9, 10, 11, 12 – Credit: 1/2)

This class is an extension of the material covered in middle school guitar as well as an introduction to guitar for students who have never played. This is a practice-based class meaning the majority of the class will focus on playing chords, singing, and playing simple melodies while reading music notation. Most of the class time will be devoted to individual practice. The goal of this course will be to develop a solid foundation of playing guitar that the students may study and practice with at home.

GUITAR LESSONS 2 (Grades: 10, 11, 12 --- Credit: 1/2) Prerequisite: Guitar Lessons 1

This class is an extension of the material covered in Beginning Guitar 1 class. This is a practice-based class meaning the majority of the class will be student-centered and focus on playing chords, singing, and playing melodies while reading music notation. Most of the class time will be devoted to individual practice. The goal of this course will be to continue to develop a solid foundation of playing guitar that the students may study and practice with at home.

BEGINNING PIANO (Grades: 9, 10, 11, 12---Credit: 1/2) Prerequisites: It is preferred that every student in this class have some sort of musical training on an instrument or voice, but all students are welcome to participate in this class.

This is a collaborative-based class meaning the majority of the class will be devoted to group collaboration and learning. The class will be teacher-centered with a focus on playing simple piano melodies, scales, and chords while reading music notation. The goal of this course will be to introduce the piano to beginners and to develop a solid foundation of playing piano that the students may study and practice with at home.

MUSIC LAB (Grades: 11, 12 --- Credit 1.0)

This is a one credit course for higher level music students in grades 11 and 12 to provide specialized individual and group instruction to a group of 12 -18 music students. Personalized learning goals and plans will be developed.

HEALTH AND PHYSICAL EDUCATION

HEALTH (Grades: 10 --- Credit: 1) Required

Health is required for all tenth grade students and must be successfully completed prior to graduation. Health instruction includes alcohol, drug and smoking education, HIV/Aids, S.T.D. and non-communicable diseases, CPR, good mental and physical health habits, and family living and relationships.

PHYSICAL EDUCATION 9-10 (Grades: 9, 10 – Credit: 1/2)

Physical Education 9-10 is required in grades 9 and 10 and is the prerequisite for all other PE courses. The class is divided into Fitness Days and Sport Days. On fitness days, the focus is to introduce the students to a variety of exercises to improve their cardiovascular health, strength and endurance, and also flexibility. On sport days, students will learn the skills needed to participate in a variety of sport activities including but not limited to tennis, ultimate Frisbee, softball, volleyball, basketball, indoor soccer, speedball, castle ball, floor hockey, badminton, pickle ball, nitro ball, lacrosse, four square, and flag football.

TEAM SPORTS (Grades: 11, 12 – Credit: 1/2)

Previously learned concepts and skills from Physical Education 9-10 provide the foundation for this course. Team Sports is offered to students in grades 11 and 12. Emphasis will be placed on personal improvement of sport-specific skills, strategies, rules, and most importantly learning how to work together with teammates with a variety of skill level competency. Students will participate in a variety of sport activities including but not limited to tennis, ultimate Frisbee, softball, volleyball, basketball, indoor soccer, speedball, castle ball, floor hockey, badminton, pickle ball, nitro ball, lacrosse, four square, and flag football. Successful completion of Physical Education 9-10 is required for this course.

PERSONAL FITNESS (Grades: 11, 12 – Credit: 1/2)

Previously learned fitness concepts provide the foundation for this course. Personal Fitness is offered to students in grades 11 and 12. Students will be educated in the areas of health, fitness, and wellness to give them the self-maintenance skills, physical skills, and knowledge base to help them adopt a healthy lifestyle. Students will participate in a variety of Personal Fitness activities including but not limited to Walk/Jog, body toning, flexibility exercises, high impact aerobics, low impact activities, strength conditioning, Tae-Bo, Pilates, Yoga, and Dance. Successful completion of Physical Education 9-10 is required for this course. This class will meet every other day.

ATHLETIC ENHANCEMENT (Grades: 11, 12 – Credit: 1/2)

The Athletic Enhancement class is designed to provide an opportunity during the school day for athletes to participate in a structured strength and athletic enhancement program that will not interfere with after school activities, jobs or homework. In-season, it prevents extended practice time and allows for recovery before practice and games. The class is geared toward the student who shows an above average interest and ability in physical education through participation on an athletic team. In order to get the full benefit of the program, all athletes should enroll in the class both semesters every year. Every athlete in every sport is on the same program. The justification for this philosophy includes the following:

1. All sports require a base of strength that includes all major muscle groups.
2. Most “sport specific” programs utilize a similar selection of lifts.
3. Lifts that are done too close to the movements involved in the technical skills of some sports can negatively affect the actual skill.
4. “Sport specificity” occurs during practice, conditioning, and athletic enhancement workouts.
5. Multiple sport athletes benefit when everyone is on the same page and is sent the same message.
6. The structure of the class and utilization of the equipment works best with a unified program.

RESISTANCE TRAINING (Grades: 11, 12 – Credit: 1/2)

The Resistance Training class is designed to provide instruction on basic strength training techniques to novice students. The class is geared toward the student who wants to increase muscular strength, but has little to no experience in resistance training. Students will be instructed on basic techniques of strength training based on their ability. The outcome of this course is to increase total body muscular strength, this outcome will be measured by a pre and posttest on the first and last day of class.

ADAPTIVE PHYSICAL EDUCATION (Grades: 9, 10, 11, 12---Credit: 1/2)

This course is reserved for those students who cannot participate in a regular physical education class. Entrance into this class is based upon the recommendations of the physical education instructor, school counselor and school nurse to the high school principal.

FOREIGN LANGUAGES

GERMAN I (Grades: 9, 10, 11, 12---Credit: 1)

This course is an introduction to the German language. It emphasizes basic vocabulary and grammar through listening, speaking, reading and writing. Students will be able to participate in simple conversation on various topics and will gain understanding of German culture.

GERMAN II (Grades: 9, 10, 11, 12---Credit: 1) Prerequisite: German I

This course is a continuance of German I. Most emphasis is on expanding vocabulary and conversational ability. Grammar is more progressive and complex. Students will enhance their knowledge of European culture. At the completion of German II students will be able to function in the foreign country.

GERMAN III (Grades: 10, 11, 12---Credit: 1) Prerequisite: German II

This course is a continuance of German II. More complex grammar skills are discussed and vocabulary is expanded through listening, speaking, reading and writing. After German III, students will have a command of German.

GERMAN IV (Grades: 11, 12---Credit: 1) Prerequisite: German III

This course offers further study of the German language and culture through reading and discussing short stories and texts often dealing with Germany's history. Students will have a solid command of the German language and would be comfortable living in a German-speaking country.

GERMAN V (Grades: 12---Credit: 1) Prerequisite: German IV

This course offers further study of the German language and culture through reading and discussing short stories and texts often dealing with Germany's history. This course offers the students a chance to broaden their vocabulary and practice listening, speaking, reading and writing skills. Students will have a strong command of the German language and would be able to function at the university level in a German-speaking country.

SPANISH I (Grades: 9, 10, 11, 12---Credit: 1)

This course will give students basic vocabulary and grammatical concepts for communication and study of the Spanish language. It will also provide an understanding of the values, customs, and cultural differences of Spanish-speaking countries.

SPANISH II (Grades: 9, 10, 11, 12---Credit: 1) Prerequisite: Spanish I

This is a more complex study of the linguistics of the Spanish language. It enables students to communicate comfortably in the language on an informal basis. It also provides a study of culture, history, and position in of Spanish speaking countries in today's world.

SPANISH III (Grades: 10, 11, 12---Credit: 1) Prerequisite: Spanish II

This is the intermediate study of the language and cultures of Spanish-speaking countries. It enables students to build upon their communication skills in the language and give them the confidence to communicate comfortably in the language on an informal basis. Students will enrich their knowledge by reading short stories.

SPANISH IV (Grades: 11, 12---Credit: 1) Prerequisite: Spanish III

This is an intermediate to advanced study of the Spanish language and people of Hispanic countries and their relationship to the world. Students will enhance their vocabularies and improve their speaking skills by reading Spanish literature, dissecting advanced grammatical structures and researching Spanish speaking countries in depth. This course requires journal and essay writing done solely in the language. Class is conducted entirely in Spanish. Students are expected to speak only Spanish while in the classroom setting.

SPANISH V (Grades: 12---Credit: 1) Prerequisite: Spanish IV

This course is an intermediate to proficient study of the Spanish language and culture in addition to building upon student's current vocabulary and advanced grammar studies. Spanish speaking countries are researched in depth. This course requires journal and essay writing done solely in the language. Class is conducted entirely in Spanish. Students are expected to speak only Spanish while in the classroom setting.

MATHEMATICS

Students must complete four credits of mathematics to satisfy the requirements for graduation from St. Marys Area High School. Students will be placed by ability in Math based upon classroom performance, PSSA, CDT, and Keystone Exam results.

STATISTICS (Grades: 11, 12---Credit: 1/2) Prerequisite: Algebra B

Statistics is designed as a basic foundation course for those students who will pursue a career in such diverse fields as the physical sciences, the life sciences, and the social and behavioral sciences. Topics include: frequency distributions, measures of location, measures of variation, permutations, combinations, rules of probability, probability distributions, the binomial distribution, Chebyshev's Theorem, the normal distribution, sampling distributions, confidence intervals, tests of hypothesis, and other selected topics as time permits. Graphing calculators are used when applicable.

ANALYSIS (Grades: 11, 12---Credit: 1/2) Prerequisite: Algebra B and Geometry Regular

Analysis is intended for those students who will pursue a career in which mathematics plays an important role. Topics include: techniques for solving systems of equations, systems of inequalities and linear programming, matrix solutions of systems of linear equations, the algebra of matrices including the inverse of a matrix, determinants and their properties, Cramer's Rule, mathematical induction, arithmetic sequences, geometric sequences, the algebra of vectors including the dot product and the cross product, space coordinates and vectors in three space, lines and planes in space, and graphing parametric equations and polar equations. Graphing calculators are used throughout the course to enhance the explanation of topics and increase student understanding. Analysis is an elective course and CAN be used to meet part of the required four credits in mathematics.

ALGEBRA A (Grades: 9 --- Credit: 1)

Algebra A covers material for Module 1 of the Algebra I Keystone Exam: Operations and Linear Equations and Inequalities. Topics include: properties of real numbers and the four basic operations with real numbers solving linear equations, graphing linear equations and functions, writing linear equations, solving and graphing linear inequalities, exponents and their properties, simplifying radicals, ratio and proportion, percents, and polynomials and factoring

ALGEBRA B (Grade 9, 10 --- Credit: 1)

Algebra B covers material for Module 2 of the Algebra I Keystone Exam: Linear Functions and Data Organization.

It is a continuation of Algebra 1A. Topics include: review of equations and inequalities; review of linear equations and inequalities, linear equations and functions; correlation and best-fitting lines; systems of linear equations and inequalities; quadratic functions; complex numbers; four basic operations with polynomials; factoring and solving polynomial equations; properties of rational exponents, solving radical equations; exponential and logarithmic functions, inverse and joint variation; four basic operations with rational expressions; solving rational expressions; solving rational equations; the fundamental counting principle along with permutations and combinations, and an introduction to probability including the addition and multiplication rules.

ALGEBRA II (Grades: 10, 11 – Credit: 1) Prerequisite: Algebra B and BASIC or BELOW BASIC on the Keystone Algebra I Exam. This course is designed for those students who need to build a better foundation of Algebra. Topics include: equations and inequalities, linear functions, systems of equations and inequalities, quadratic functions, polynomial functions, powers, roots, and radicals.

GEOMETRY REGULAR (Grades: 10, 11, 12---Credit: 1) Prerequisite: Algebra B

Geometry Regular is designed for the student enrolled in the academic curriculum. This course includes elements of both plane and solid geometry along with the concept of proof. Topics include: basic types of angles and angle relationships, inductive and deductive reasoning, properties of perpendicular lines and parallel lines and planes, congruent triangles, similar triangles and other polygons, basic properties of right triangles, the Pythagorean Theorem, circles, geometric construction and loci, areas of polygons and circles, areas and volumes of common solids, and other topics as time permits.

GEOMETRY ACCELERATED (Grades: 9---Credit: 1) Prerequisite: Algebra 8B (Middle School)

Geometry Accelerated includes elements of both plane and solid geometry along with the concept of proof. Topics include: basic types of angles and angle relationships, inductive and deductive reasoning, properties of perpendicular lines and parallel lines and planes, congruent triangles, similar triangles and other polygons, basic properties of right triangles, the Pythagorean Theorem, circles, geometric construction and loci, areas of polygons and circles, areas and volume of common solids, and other topics as time permits.

GENERAL TRIGONOMETRY (Grades: 12 – Credit: 1)

Topics covered include: the six trigonometric functions; acute angles and right triangles; radian measure and circular functions; graphing trigonometric functions; fundamental identities and verification of identities; inverse trigonometric functions and solution of trigonometric equations; oblique triangles; exponential and logarithmic functions; and the complex number system and polar coordinates.

ACCELERATED TRIGONOMETRY-S (Grades 11, 12 ---Credit: 1/2) Prerequisite: Algebra B and Geometry

This course is intended for those students who will take Calculus I. Topics include an in-depth study of: degrees/radians; triangle trig; definition and utilization of the six trig functions; inverse trig functions; trig identities; graphs of trig functions; applications of trig functions. Graphing calculators are used throughout the course to enhance the explanation of topics and increase student understanding.

PRECALCULUS (Grades 11, 12 ---Credit: 1) Prerequisite: Algebra B and Geometry

Pre-Calculus is a full year class intended for those students who may encounter a college entry mathematics course or who intend to take Calculus or a full year of Trigonometry. Topics include: functions – linear, radical, quadratic, exponential, and logarithmic – and their graphs, rational expressions, linear and compound inequalities, rational exponents, evolving systems of linear equations, and solving quadratic equations.

ALGEBRA III-TRIG (Grades: 10---Credit: 1) Prerequisite: Geometry Accelerated

Algebra III - Trig is designed for those students with an insight and appreciation for mathematics. Topics include: in-depth study of functions, extensive graphing techniques, in-depth study of polynomial functions, the complex number system, exponential and logarithmic functions, sequences and series, the Binomial Theorem, circular and trigonometric functions (wrapping function and right triangle approach to trigonometry), inverse trigonometric functions, verification of trigonometric identities, solution of trigonometric equations, solution of triangles and applications of trigonometry to complex numbers. Graphing calculators are used when applicable.

CALCULUS 1 (Grades: 11, 12---Credit: 1) Prerequisite: Algebra III-Trig or PreCalculus and Accelerated Trigonometry-S

Calculus is designed for those students with an insight and appreciation for mathematics or interested in pursuing a career in engineering or business/accounting in which mathematics plays an important role. Topics include but are not limited to: conic sections; limits and their properties; L'Hopital's Rule; continuity; the derivative and the tangent line problem; differentiation of algebraic and transcendental function; implicit differentiation; related rates; differential application including graphing and optimization problem; differentiation of natural logarithms; definite integrals and area under the curve; introduction to integration techniques including substitution; the Fundamental Theorem of Calculus; disc/washer/shell methods and volume; other selected topics as time permits. Graphing calculators are used throughout the course to enhance the explanation of topics and increase student understanding.

CALCULUS 2 (Grade: 12 ---Credit: 1) Prerequisite: Calculus 1

Calculus II builds on the concepts of Calculus I. Topics include but are not limited to: review of integration techniques and area; natural logarithms, exponential, and transcendental function differentiation and integration; applications of integration including area, volume, arc length and surface of revolution, work; basic integration rules; integration by parts; trig substitution; trig intervals; partial fractions; integration by tables; series and convergence; power series; Taylor and Maclaurin series. Graphing calculators are used throughout the course to enhance the explanation of topics and increase student understanding.

COMPUTER PROGRAMMING 1 (Grades: 10, 11, 12---Credit: 1/2) Prerequisite: Algebra B

Computer Programming 1 is a one-semester course that teaches students to write computer programs using a structured, high-level computer language. The main emphasis will be on proper usage of basic program instructions, structures, and data features. Some time will be devoted to problem-solving techniques.

COMPUTER PROGRAMMING 2 (Grades: 10, 11, 12---Credit: 1/2) Prerequisite: Computer Programming 1

Computer Programming 2 is a one-semester course that continues the study of the language begun in Programming 1. The material in this course will pick up where the first course left off. Topics covered will be advanced data structures, file manipulation, functions, and algorithm development.

ACCELERATED COMPUTER SCIENCE (Grades: 11, 12---Credit: 1)

AP Computer Science is a full-year, one-credit course designed to teach students to write logically structured, well-documented computer programs using a structured, high-level computer language. Emphasis is placed on the development of programming techniques that lead to the creation of high quality, computer based solutions to real problems. The course's scope is comparable to the material presented in a college introductory course in computer programming.

EXCEL (Grades: 10, 11, 12---Credit: 1/2) Prerequisite: Algebra B

Student will be introduced to one of the most widely used business software today Microsoft Excel. Topics covered will be cell entries, formula writing, cell formatting, moving, copying and additional features involved in building a useful worksheet. This will be accomplished using lecture and hands-on projects and exercises. This class will include math heavy skills.

ARCHITECTURE INSPIRED BY MATHEMATICS (Grades: 9, 10, 11, 12 – Credit: 1/2)

This ½ credit elective course will offer exposure to various structures from early history to modern architecture and study their mathematical significance and inspiration. Throughout the course, students will be given opportunities for research and practical learning projects. This course is designed for students with an interest in architecture, engineering, and history and who enjoy hands-on learning and are looking for an opportunity to see how concepts in math can be applied.

CTE MATH – (Grades: 12 --- Credit: 1)

This course is designed to introduce and reinforce practical math concepts and standards that are commonly required in a CTE related field. It will be a competency based curriculum in which comprehension will be demonstrated through progress towards projects assigned through their CTE program.

SAT PREPARATION (Grades: 11, 12 --- Credit: 1/2)

This prep course is specifically designed to prepare students for the SAT test. Instruction will be offered in both the Math and the English components of the test. This class will NOT focus on the writing section of the SAT test.

CAREER & TECHNICAL EDUCATION

METAL WORKING I (Grade: 11---Credit: 3) (396 hours)

Instruction is provided into basic identification, nomenclature and uses of metal, machinery, tools, drawings, operations, safety and care of equipment related to the metal working field. Examples of skills are reading simple drawings, use of measuring equipment, rule, micrometers, and gages. Students will be able to identify the lathe, mill, grinding, powdered metal, welding machine parts, and identification of metals and their uses.

CTE LAB MWO or CTE LAB BCO (Grade: 12---Credit: 4) (528 hours)

CTE lab is an extensive and broad instructional program in which students already enrolled in MWO or BCO as juniors will receive advanced instruction in related CTE related fields. Students will have the opportunity to receive training in drafting, building construction, precision metal working, laser engraving, 3D printing, and various other trade related topics. The program will utilize a competency based curriculum specifically tailored to the abilities and interests of the student. Students will also have the opportunity to participate in the Capstone or Work experience programs.

INTRODUCTION TO DRAFTING (Grades: 9, 10, 11, 12---Credit: 1/2)

Intro to Drafting will introduce students to basic drafting skills and knowledge that is needed to create technical drawings and designs. If you are unsure as to what drafting is and would like to know more, then this course is for you. Students will be given an opportunity to develop their drafting skills and knowledge by starting the course with straightforward drawing techniques, and working their way up to a higher skill level with the application of 2D and 3D CAD software to create technical drawings and designs.

DRAFTING I (Grades: 9, 10, 11, 12---Credit: 1)

Drafting I is a full credit year long course designed to cover and reinforce basic knowledge and skill levels of drafting and design principles and fundamentals. Items covered in this course are geometric construction, mechanical drafting, layout, pictorial design, and graphic construction. This hands on course will allow students to begin learning drafting by, primarily using, but limited to, Solid Edge, which is a 3 dimensional drafting software to complete class projects and assignments. Each project is designed to increase the students' drafting skill, knowledge, and ability.

DRAFTING II (Grades: 10, 11, 12--Credit: 1) Prerequisite: Successful completion of Drafting 1

Drafting II is designed to increase the students' skill level and application of drafting from the previous Drafting I course. Students will primarily apply Solid Edge to complete assignments and independent projects that will increase their skill level and knowledge. In addition to the application and the continued improvement of each individual, in drafting and design-based skills, the students may also have the opportunity to apply prototyping machines such as 3D printers and laser cutting/engraving machines.

ARCHITECTURAL DRAFTING (Grades: 11, 12---Credit: 1/2)

Architecture Drafting is a course that combines architectural drafting and research and design. Throughout this course the students will further their knowledge of drafting by expanding into the architectural discipline. Once the students have achieved the architectural goals set by the instructor, the students will then be given an opportunity to create models of buildings, bridges, and any other related projects. This course is designed to enhance the students drafting skill level as well as support their print reading abilities and common knowledge in architecture design and construction.

DIVERSIFIED OCCUPATIONS LAB (Classroom Instruction) (Grades: 12---Credit: 1) (132 hours)

This course offers classroom experience for those students whose immediate post-high school plan requires training, which currently cannot be provided within the existing offerings. All career readiness students who have been successful in their two years of initial preparation are qualified to take this course. Students will meet daily for classroom instruction which will include such general topics as child labor laws, taxes, career exploration, work ethics, human relations, job safety, communication skills, resume writing, interviewing techniques and PA Career Link. Technical related instruction designed to meet the needs of each individual student will also be provided.

BUILDING CONSTRUCTION I (Grades: 11---Credit: 3) (396 hours)

This is a one-year, double period course taught in the Building Construction Occupations laboratory. Instruction is provided in the basic skills of carpentry, electricity, masonry, plumbing, heating, roofing, guttering, insulating, painting, decorating, plastering, record keeping, safety, and theory. Examples of specific skills are wood identification, electrical theory, proper grounding, setting of concrete forms, mortar mixing, measuring copper tubing, insulation material selection, application of paints and cleaning methods.

HEALTH CAREERS (Grades: 11---Credit: 1) (132 hours)

This course is designed to introduce students to various health careers. Also covered will be the necessary educational requirements as well as the tasks and responsibilities associated with the occupations. The course is a requirement for those enrolled in Health Related Technology and is an elective for students in grade 10, 11, and 12 as space allows.

MEDICAL TERMINOLOGY (Grades: 11---Credit: 1) (132 hours)

This course will investigate the foundations of the language of medicine. Terms used for body descriptions, body systems, medical procedures, disorders and diseases will be learned. The course is a requirement for those enrolled in Health Related Technology and is an elective for 10, 11, and 12 as space allows.

HEALTH TECH LAB - CNA (Grades: 12---Credit: 2) Prerequisite: Health Careers and Medical Terminology (264 hours)

Health Tech Lab is a one-year course for seniors in Health Related Technology, who plan to pursue post-secondary education in a health care profession. The course includes infection control, safety, asepsis, laboratory-assisting skills, medical assisting skills & advanced patient care skills. This course also uses previously learned skills and knowledge integrated with new material to provide students with a holistic approach to patient conditions, treatment, and care. CNA requirements will be the focus of this lab.

ANATOMY AND PHYSIOLOGY (Grades: 11, 12---Credit: 1) (132 hours)

This is a one-year course designed to prepare students for health related professions. The course provides students with fundamental concepts of major body systems, diseases and conditions, emergency procedures and first aid, and patient care and is offered to juniors in the Health Related Technology curriculum. This course is a requirement for those enrolled in HRT and is an elective for juniors and seniors as space allows.

HEALTH TECH LAB - EMT COURSE (Grades: 12---Credit: 2)

This course is designed for individuals interested in providing care to sick and injured patients in the pre-hospital setting. This course will provide the skills necessary for EMT certification. Students who complete this course will be eligible to take the PA EMT exam and then the NREMT exam. Students will be responsible for providing proper clearances and background checks prior to the beginning of the course.

CO-OP: COOPERATIVE EDUCATION (Grades: 12 --- Credit: 1 - 2)

This course is the capstone class and work experience and is designed as an "on-the-job" training program. All CTE students who have been successful in their program are qualified for placement. Students in the Diversified Occupations curriculum are **required** to complete a Co-Op experience. This program will concentrate on the transfer of skills learned in the classroom to the actual work environment. Placement and pay will be subject to all appropriate labor laws. Both the employer and the co-op supervisor will provide supervision. In addition, at least one period per week will be scheduled as a "co-op" class, which will include exposure to the PA Career Link website and will be taught by the co-op supervisor.

WORK EXPERIENCE PROGRAM – (0 credits)

This program allows eligible senior students to be dismissed prior to the end of the school day in order to fulfill a job responsibility. Eligible students would be free to seek their own source of employment and establish their own work hours. Eligibility would require students to be in good academic standing and on pace for graduation. NO academic credit would be granted for participation.

JOB SHADOWING (Grades: 12---Credit: 1/2)

All seniors in either College Readiness curriculums must complete a job shadowing experience by the end of the senior year. The student must successfully complete three days of observations, a daily journal of observations, a one-page analysis of the potential of the career, a research paper, a list of post-secondary schools, a reflection paper, an interview, a resume and any other outlined requirements.

SCIENCE

CTE students must complete three credits in science to satisfy the minimum requirements for graduation from St. Marys Area High School. College Prep and Job Readiness students must complete four credits to satisfy the minimum requirements for graduation from St. Marys Area High School.

ADVANCED TOPICS IN CHEMISTRY (Grades: 11, 12 – Credit: 1/2) Prerequisite: General Chemistry or Chemistry Study w/ Lab. This course is for those students who are planning to major in a scientific field or for those students who may be required to take chemistry as part of their college curriculum. The first segment will review the major topics covered in Chem. Study; focusing on the nature, characteristics, and changes of substances. The Organic Chemistry portion will familiarize the student with naming and formula writing/drawing of the basic organic functional groups. Students will also be introduced to the basic lab preps and reactions of alkanes and alkenes, and benzene reactions.

ADVANCED SCIENCE TOPICS IN BIOLOGY (Grades: 11, 12---Credit: 1/2) Prerequisites: Biology, Chem. Study w Lab This advanced course is designed for students planning further education in science related fields. The first quarter will focus on chemistry of life, biochemical molecules, cells and their parts. DNA / RNA and protein synthesis will also be covered. The second quarter will cover the fundamentals of heredity, molecular genetics, and evolutionary biology. The course will also focus on mono & di hybrid crosses, mutations, sex linked disorders, and genetic disorders.

ADVANCED SCIENCE TOPICS IN PHYSICS (Grades: 12—Credit: 1/2) Prerequisite: Grade of B or higher in General Physics The optics portion of this course covers the fundamental properties of light propagation and interaction with matter under the approximations of geometrical optics and scalar wave optics. The objectives of the course are to provide students with the basic science and skills of optics with geometric and physical properties, which are necessary for understanding refraction, lenses, ophthalmic instruments and the human eye's optical system. The Electricity & Magnetism portion of this course studies the basic principles of electricity and magnetism. This course is especially appropriate for students planning to specialize or major in physical science or engineering. The course explores topics such as Charges and matter, the electric field, electrostatics; conductors, electric circuits; magnetic fields; and electromagnetic waves.

BIOLOGY (Grades: 9, 10---Credit: 1)

This course in biology will provide the fundamental concepts needed to understand life and living things. Topics include a general introduction to chemistry, as it is related to biology, ecology, cell structure and function, energy generation (photosynthesis and cellular respiration), cell growth and division (mitosis and meiosis), genetics and heredity and an introduction to the molecules of life (DNA, RNA, protein, lipids and carbohydrates). An emphasis is placed upon terminology and the investigation of biological phenomena through simple, safe observation and experimentation. Successful completion of this course will prepare students for the PA Biology Keystone examination.

BIOLOGY WITH LABORATORY (Grades 9, 10 – Credit 1.5)

This course in biology will provide the fundamental concepts needed to understand living things and provide a general introduction to bacteria, plants, animals and humans. The pace and depth of instruction on the topics of biochemistry, ecology, cell structure and function, energy production, cell growth, division and reproduction, genetics and heredity, biotechnology and evolution will be increased. In addition, after an introduction to classification, students will survey bacteria, plants, animals and humans. Successful completion of this course will prepare students for the PA Biology Keystone examination and prepare them for enrollment in Advanced Biology Topics or Anatomy and Physiology.

EARTH & SPACE SCIENCE (Grades: 12---Credit: 1) **This course cannot be taken if you plan to take Astronomy/Geology in 12th grade.

You live on Earth, so why not study and learn about it to gain a better understanding of your planet? In this course you will learn how the Earth came to be and the mechanisms that shape it. You will take part in activities designed to help you understand the processes of the Earth itself (geology), of the ocean (oceanography), and the atmosphere (meteorology). Other activities are included to aid in your understanding of Earth's place in the universe and the enormity of space (astronomy).

GENERAL PHYSICS (Grades: 11, 12---Credit: 1) Prerequisite: Grade of C or Higher in Chemistry and Algebra B.

Must also be taking General Trigonometry or higher.

The goal of this course is to provide you with a thorough grounding in the fundamentals of classical physics. The course will deal primarily with the description of the motion of objects and the cause of this motion. The number one priority is to learn how to think critically, in a scientific manner, about the physical environment.

ACCELERATED PHYSICS – (Grades: 11, 12—Credit: 1) Prerequisite: Grade of B or higher in Chemistry and a grade of B or higher in Algebra 3-Trigonometry.

This course is designed for students who expect to continue their education beyond the high school level or pursue a career in a science related field. Mathematics plays an important role in the study of physics, and a great deal of the work you will do in this course will consist of problem solving and using algebraic skills you acquired in your math courses. This course stresses the importance of understanding the fundamental equations describing the kinematics and kinetics of moving objects. This course stresses the importance of understanding the fundamental equations describing the kinematics and kinetics of moving objects. Students participate in laboratory exercises, small group activities and discussions. Expect a fast pace and high rigor if enrolling in this course.

AP PHYSICS 1 (Grades: 12---Credit: 1.5) Prerequisite: Grade of A or higher in Chemistry and Algebra/Trig

The content of this course is highly theoretical and in depth. Areas studied are translational and rotational motion, force, momentum, energy, gravitation, waves, sound, electrostatics and DC circuits. Computer-based laboratories, demonstrations, and many real life applications are an integral part of this course. This is a first year, algebra based course, and if taken by the student as an underclassman, will prepare the student for the Physics AP Level C offerings, which are calculus based, or Physics 2 AP. Students succeeding on the Physics 1 AP test may claim up to five college credits in Physics or some other elective. (Note that this varies by college/university.) The course has a summer requirement. Students must take the AP exam in May.

PRINCIPLES OF TECHNOLOGY I (Grades: 10, 11, 12-Credit: 1) Prerequisite: Algebra B

Principles of Technology I is a one-year course that uses a hands-on approach to prepare students to function in a technical work environment. This laboratory-oriented offering will stress applied physics and mathematical techniques to allow students to use scientific principles and concepts for problem solving in practical situations. The course will provide coverage in the topics of force, work, rate, resistance, energy, power and transforming devices. Training using the above topics will be used to gain a working knowledge of electrical, fluid, mechanical and thermal systems.

PRINCIPLES OF TECHNOLOGY II (Grades: 11, 12---Credit: 1) Prerequisite: Principles of Technology I.

Principles of Technology II is a one-year course that uses a hands-on approach to prepare students to function in a technical work environment. This laboratory-oriented offering will stress applied physics and mathematical techniques to allow students to use scientific principles and concepts for problem solving in practical situations. The course will provide coverage in the topics of: energy, power, momentum, waves & vibration, energy converters, transducer & sensors, radiation, light and optical systems. Training using the above topics will be used to gain a working knowledge of electrical, fluid, mechanical, thermal and other energy systems.

GENERAL CHEMISTRY (Grades: 11, 12---Credit: 1) Prerequisite: Algebra B

In General Chemistry students will explore the fundamental principles of chemistry by examining: the properties of matter and how it reacts, measurement, atomic theories and structure, electron configuration, the periodic table, bonding, causes of change, heat calculations, general reaction types, stoichiometry, gas laws, properties of liquids and solids, solutions, and acids and bases. Critical thinking (the ability to carry out systematic thought processes in making decisions and solving problems), inquiry (solving problems through scientific investigation) are stressed in this class.

CHEMISTRY STUDY with Lab (Grades: 10, 11---Credit: 1.5) Prerequisite: Algebra B

Chemistry Study with Lab will introduce students to the study of the physical world by examining: Matter and Energy, Atoms and Moles, The Periodic Table, Ions and Ionic Compounds, Covalent Compounds, Intermolecular Forces, Chemical Equations and Reactions, Stoichiometry, Heat Calculations, Gas Laws, Solutions, Acids and Bases, Reaction Rates, and Redox Reactions. Students will explore chemistry through textbook readings, online assignments, and hands-on laboratory activities. The study of chemistry provides the fundamental building blocks for most scientific disciplines. The laboratory work will develop students' reasoning power, the ability to apply chemical principles; as well as acquaint students with chemical laboratory techniques.

GENERAL SCIENCE (Grade: 9---Credit: 1)

This is an introductory high school level science class. This course should be taken in preparation for Biology and Biology Keystone. The topics covered will include Chemistry, Physics, Geology, and Biology that are presented in a way that the student will get a real world understanding of how all sciences are inter-twined. The key concepts will be focused on the Biology aspect of the course.

ASTRONOMY/GEOLOGY (Grade 12---Credit: 1/2) **cannot be taken if Earth and Space Science has been taken.

This course is broken into a quarter of Astronomy and a quarter of Geology. Students taking this course will learn about various aspects of the Universe and of the Earth itself. We will investigate the concepts of modern astronomy, the origin and history of the Universe, and the formation of the Earth and the solar system. Lessons are designed to allow students to gain an understanding of Earth's place in the universe and how astronomical phenomena influence their everyday lives. During the second quarter students will study geology. We will investigate various aspects of the Earth and the processes that have shaped it. Topics will include Plate Tectonics, Rocks and Minerals, and the concept of Geologic Time.

S.T.E.M. LAB (SCIENCE TECHNOLOGY ENGINEERING AND MATH) (Grades 11, 12 --- Credit: 1)

STEM a one-year course that uses a hands-on approach to prepare students to function in a technical work environment. This is a laboratory oriented offering and will stress engineering and mathematical techniques to allow students to use scientific principles and concepts for problem solving in practical situations. This hands-on/mind-on course will expose the student to basic fields and skills in the engineering realm. Introductory topics include: The Engineering Process, Materials Science, Strengths of Materials, Mechanical and Fluid Power Systems. Concluding topics of: Electricity and Electronics, Instrumentation and Control, Computer Interfacing of Devices and Robotics will also be covered. Training using the above topics will be used to gain a working knowledge of systems that are used in technology and their scientific basis of functioning.

INTRODUCTION TO ROBOTICS (Grades: 9, 10, 11, 12---Credit: 1/2)

Intro to Robotics is a semester long course that will allow students to engage with robotic kits, to learn basic robotic concepts and programming. Students who take this course will work with their fellow students to assemble, program, and operate a robotic kit and complete a set task. The students will also apply the design process to create parts with prototyping devices and modify the existing robots to achieve higher performance. Students enrolled in this course will also have the opportunity to be a part of a robotic challenge and compete with other local schools.

SOCIAL STUDIES

Students must complete at least four credits in social studies to satisfy requirements for graduation from St. Marys Area High School. Three credits to meet the Social Studies requirement and one credit to meet in part the credit requirement in Arts and/or Humanities. Students should consult social studies teachers and guidance counselors for assistance in making appropriate course selections. Students will be placed by ability in most social studies classes based upon teacher's and guidance counselor's recommendations.

WORLD CULTURES (Grades: 10---Credit: 1)

World Cultures is the study into the lives of other world peoples. The field is not limited to any one field in the social studies but draws upon the resources and contributions of geography, history, economics, sociology, anthropology, political science and psychology. Culture refers to all the accepted and patterned ways of behavior of a given people. It includes their contributions to music, literature, traditions, and folkways.

ECONOMICS (Grades: 12---Credit: 1/2)

The emphasis in the study of Economics is on the development, operation, and problems of a market economy. It will help students develop a rational approach to economic problem solving. Concepts examined in the course will include: (1) Economics, (2) Scarcity, (3) Opportunity Cost, (4) Economic Systems, (5) Competition, (6) Economic Role of Government and (7) Application of Economic Skills and Analysis, (8) International Finance and (9) Banking.

AMERICAN GOVERNMENT-S (Grades: 11---Credit: 1/2)

American Government is a course required for all students. The course is designed to provide students with insights of the inter-relationships of politics and the structure and operation of the American form of government. Through the study of this course, students will gain a working knowledge of the constitution and of the citizen's role in government. They will acquire an understanding of the major offices in the government on the national, state, and local levels.

AMERICAN CULTURES SINCE 1877 (Grades: 9 ---Credit: 1)

Previously referred to as American History, the term "cultures" was substituted to include a broader spectrum into the study of American Society. Chronologically this course covers the time period from 1877 to the present. The main topics include Civil Rights, The Role of Industrialism, The Rise of Big Business, The American Labor Movement, the Role of the Immigrant, World Wars I and II, Korean War, Vietnam War and Middle East turmoil. The study includes contributions in music, literature, reform movements, etc. Contributions made by blacks and other racial and ethnic groups in the development of the United States are emphasized.

PSYCHOLOGY (Grades: 11, 12---Credit: 1/2)

Psychology is the study of how people perceive and think. It further examines how people learn and why they behave as they do. It is not based on the prejudiced opinion or unsupported judgment. In psychology, behavior is defined as those activities of a human being or other organism that can be observed directly by means of special instruments or techniques. Such activities as walking, running, and speaking are forms of human behavior. It is also concerned with learning, remembering and reasoning.

ACCELERATED UNITED STATES HISTORY (Grades: 9---Credit: 1) Prerequisite: teacher recommendation

Accelerated United States History is a two semester intensive study of American History from Reconstruction to the present. The course investigates the lives of historical figures as well as ordinary people. While social and economic histories are areas of special emphasis, the instructor gives careful attention to traditional political and cultural developments providing a balanced viewpoint of United States History. As a whole, this course offers the student a wider ethnic historical scope will emphasize the development of critical thinking, reading and writing skills.

ACCELERATED EUROPEAN HISTORY (Grades: 10---Credit: 1) Prerequisite: teacher recommendation

This course is an intensive study of the history of the world from Ancient Civilizations to the present. It examines the lives of historic figures and ordinary citizens. While social and economic histories are areas of special emphasis, careful attention is given to traditional political and cultural developments to provide a balanced view of world history. World history offers a detailed geographic and ethnic scope, with added coverage of Eastern Europe, the Celtic region, and Islamic peoples. Emphasis will be placed on critical thinking, reading and writing skills.

ACCELERATED AMERICAN GOVERNMENT (Grade: 11---Credit: 1) Prerequisite: teacher recommendation

Accelerated American Government is a course designed to provide students with deeper insights into the inter-relationships of politics and the structure and operation of the American form of government. Through the study of this course, students will gain a working knowledge of the constitution and of the citizen's role in government. They will acquire an understanding of the major offices in the government on the national, state, and local levels. Emphasis will be placed on critical thinking, reading, and writing skills.

ACCELERATED ECONOMICS (Grades: 12---Credit: 1) Prerequisite: teacher recommendation

This course will be focused in both macroeconomics and microeconomics. Only select students who have previously exhibited superior academic achievement will be considered for doing this advanced work. Students taking this economics course will write a letter of intent exhibiting their desire to do extra work that is necessary in an advanced placement course. Upon completion of the course the students may, if he or she so desires, take the College Board exam that will qualify them for college credit. The prospective students must understand that they will need approximately one hour outside of class to prepare for each class meeting.

CONTROVERSIES IN CONSTITUTIONAL LAW (Grades: 11, 12---Credit: 1/2)

The political and social environment of the United States is always changing – and with those changes come conflict and controversy over issues that affect our daily lives. In an age where differences of opinion have led to grid lock and division, students in Controversies in Constitutional Law will learn not only how to form and express their opinions, but how to use legal knowledge and reasoning skills as judges, attorneys, and legislators to overcome conflict and contribute to social and political change that honors the principles of the U.S. Constitution and American democracy.

WORLD GEOGRAPHY (Grades: 10, 11, 12---Credit: 1/2)

The World Geography course takes an interdisciplinary approach to geography. Its aim is to relate physical geography to economic, political, social, historical, and cultural aspects of human activity. The course is intended to provide students with core knowledge about the world's geographic regions and to relate that knowledge to events in today's changing world.

CIVIL WAR ERA (Grades: 9, 10, 11, 12---Credit: 1/2)

A history elective designed for anyone having either a general or special interest in the American Civil War. The subject is studied through class-discussions, guest speakers, videos, and printed materials. Topics include the causes, course, and outcome of the war, an examination of the soldiers' life, significant personalities (military and political). The role of women in the conflict as well as special treatment of the Bucktail Wildcats from Elk County will be considered.

WORLD WAR II ERA (Grades: 11, 12 – Credit: 1/2)

A history elective designed for anyone having either a general or special interest in World War II. The subject is studied through class-discussions, videos, printed materials, and both documentary and feature film. Topics include the causes, course, outcome of the war, significant personalities, and the lasting legacy of World War II. An in-depth look at the Holocaust is also a key objective of this course.

TOPICS IN SOCIAL STUDIES (Grades: 9, 10, 11, 12---Credit: 1/2)

This semester course will focus on the events and issues of society that have had a dramatic affect on the people living in the modern world. Topics to be examined will be local, national, and global events and issues including but not limited to discrimination/tolerance, gun control, the economy, politics and constitutional matters, and terrorism. The goal of the class is for students to become informed and engaged citizens by gaining a better understanding of the issues and the events that impact and shape society.

SPECIAL EDUCATION CLASSES

LEARNING SUPPORT ENGLISH 1, 2, 3, and 4 (Grades: 9, 10, 11, 12---Credit: 1)

The Learning Support English class emphasizes the structure of the English language to improve the quality of student writings. Students will be required to write short stories, poems, plays, multi-paragraph informational pieces (letters, descriptions, reports, instructions, essays, articles, interviews); persuasive pieces. Students will develop the skills needed to write with a sharp, distinct focus, using well-developed content appropriate for the topic and organization. The student will write different types (simple, compound, complex, declarative, interrogative, exclamatory, imperative) and lengths of sentences. The student will edit writings for spelling, capitals, punctuation, and parts of speech.

LEARNING SUPPORT MATH (Grades: 9, 10, 11, 12---Credit: 1)

The Learning Support Math class emphasizes mathematic skills needed to solve multi-step problems. Students will use numbers, number systems, and number relationships to solve multi-step problems using addition, subtraction, multiplication, and division. Students will complete computations and estimations for whole numbers, fractions, percents, money/decimals, and graphing. Students will select and use appropriate units and measure given diagrams. Students will apply mathematical reasoning to determine solutions to a multi-step problem. Students will complete problem solving activities and communicate their observations, predictions, concepts, procedures, generalizations, ideas, and results. Students will estimate or calculate to make predictions when given a variety of graphs. Students will make generalizations for a given data set requiring one math calculation. Students will graph points and identify patterns.

Learning Support Math is taught in the following sequence:

LS PreAlgebra - grade 9

LS Algebra A - grade 10

LS Algebra B - grade 11

LS Practical Math - grade 12

LEARNING SUPPORT READING (Grades: 9, 10, 11, 12---Credit: 1)

The Learning Support Reading class assists students to demonstrate an understanding and interpretation of fiction and nonfiction text. Students will read and understand the essential content of informational texts and documents. They will identify fact from opinion, make inferences about similar concepts in multiple texts, draw conclusions, and explain an author's text organization. Students will read and respond to literature. Students will identify the characters, setting, plot, theme, and point of view within literary works.

Classes available include:

LS Reading 1

LS Reading 2

LS Reading 3

LS Reading 4

LEARNING SUPPORT SCIENCE (Grades: 9, 10 11, 12---Credit: 1)

Learning Support Science is taught in a four-year cycle. Earth Science, Physical Science, Life Science, and Health are taught. The class relates information addressed in the general education science classes to the students.

LEARNING SUPPORT SOCIAL STUDIES (Grades: 9, 10, 11, 12---Credit: 1)

Learning Support Social Studies is taught in a four-year cycle. Students are provided instruction for two years of World Geography and two years of American History. The students are provided with the same information obtained in the general education social studies courses yet at a slower pace.

LEARNING SUPPORT RESOURCE

The Learning Support Resource course is designed to provide assistance and support to a student in their regular and/or special education courses. Students are required to bring their assignment book, class assignments, and materials to class. Progress is monitored and communicated to parents.

LIFE SKILLS CLASSES (Grades: 9, 10, 11, 12---Credit: 1)

This group of classes includes Vocational, Community Based Instruction, Functional Academics, Daily Living, and Personal Care. The focus is on assisting students to develop the independent living skills, communication skills, social skills, and vocational skills needed to be successful.

PERSONAL CARE – Life Skills

This course offers students the opportunity to develop the personal care skills, communication, and social skills needed to have a full and meaningful life.

DAILY LIVING – Life Skills

This course offers students assistance learning to cook, complete laundry tasks, and other household management skills.

VOCATIONAL – Life Skills

This course offers students an opportunity to discuss the skills needed to be successful in the work place. Students complete vocational activities designed to improve their skill levels.

FUNCTIONAL ACADEMICS – Life Skills

This course offers students opportunities and assistance in gaining independent living skills including money management, reading labels, reading recipes, making grocery lists, etc.

COMMUNITY BASED INSTRUCTION – Life Skills

This course offers students the opportunity to participate in life activities within the local community while having direct supervision and training. Students practice and access local community services.