## Hazleton Area Career Center

## SCHOOL YEAR 2016-2017

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## NONDISCRIMINATION POLICY

It is the policy of the Hazleton Area School District not to discriminate on the basis of race, sex, color, age, religion, ancestry, marital status, or disability in its educational programs, activities, or employment policies. Announcement of this policy is in accordance with State law including the Pennsylvania Human Relations Act and with Federal law, including TitleVII of the Civil Rights Act of 1964, Title IX of the Education Amendments of 1972, Section 504 of the Rehabilitation Act of 1973, the Age Discrimination in Employment Act of 1967, and the Americans with Disabilities Act of 1990.

> Cathy Brogan, Title IX Coordinator
> Carl Manfredi, 504 Coordinator
> I5I5 W 23rd St Hazle Township, PA 18202
(570) 459-3 I I I

## PREFACE

Through a dynamic partnership of educators, learners, and community members, Hazleton Area High School students will develop the skills necessary to become life-long learners in a culturally diverse community. Individuals will be challenged to develop self-responsibility and to reach their highest potential in a safe and supportive environment using technology in a comprehensive curriculum.

Graduation Projects, required of all students as per the Pennsylvania State Board of Education Regulations, are an extension of student learning. They assess a student's ability to apply, analyze, synthesize, evaluate and communicate information to others. Additionally, these Graduation Projects offer opportunities to explore career options. All projects are reviewed by a faculty panel.

The following course of study has been prepared after many long hours of investigation and study. It is designed to meet the needs of the students at the Hazleton Area High School. If read carefully with thought toward future goals, students will find that it offers a wide variety of choices intended for a comprehensive education and preparation for future endeavors.

The courses taken in high school can have a great impact on a student's life. They should become familiar with and consider the entrance requirements for college, career/technical schools, military careers, or employment when selecting high school courses.

Students entering the work force after high school will find that employers are looking for graduates who possess academic and career skills needed to benefit their company. Students should consult their guidance counselors and teachers for advice on course sequences.

The Hazleton Area School District uses Middle States Association of Colleges and Schools Accreditation, High Schools That Work, the Pennsylvania System of School Assessment (PSSA) and district-wide assessment to provide on-going evaluation of our programs.

More information about our district and district profiles are available at these web sites:

## GUIDANCE NOTES

## HAZLETON AREA VIRTUAL ACADEMY:

Cyber School opportunities are available. Contact Michele Medek at 459-3247.

## PHYSICAL EDUCATION EXEMPTION:

PREREQUISITES: Hazleton Area High School students who have successfully completed a Health requirement and a Physical Education requirement are eligible to apply for a Physical Education exemption.

Students are required to substitute classes that are challenging and also academically advanced or related to their proposed college or university major.

Any physical education exemption request must be approved by the school guidance counselor. Physical Education exemption forms are available in the guidance office.

## SPECIAL EDUCATION:

Special education delivers services that are comprehensive, balanced, and appropriate in guiding the students to realize their highest potential. Arrangements must be made through the guidance counselors and the Special Education department.

## KEYSTONE FOCUSED COURSES:

Integrated Mathematics 9, Integrated Mathematics 10, Algebra 1A, Algebra 1B,Reading Strategies, Literacy Skills, and Biology Skills - Students are enrolled based upon State Assessment Scores/PVAAS Predictability/CDT test scores and teacher/ administrative recommendation. Students are required to take these courses which will replace a required course or an elective.

## CAREER CENTER <br> GUIDANCE

Guidance, HACC
.459-3221
Patrick Capece (82516) Mrs. MaryJo Shalanski (82517)

## GRADE 10

## OVERVIEW OF COURSE REQUIREMENTS

Students will take 8 credits as outlined below. 4 credits will be taken during semester 1 and 4 credits will be taken during semester 2.

## REQUIRED COURSES:

## ENGLISH

## English II (102C)

English II includes reading a variety of literary genres: short stories, novels, poetry, drama, and nonfiction. This course focuses on oral and written communication skills as well as speaking and listening. Resource skills will be utilized in the completion of a term paper. Literature activities concentrate on critical reading, analysis, and interpretation of diversified literary forms and devices.

## OR

Honors English II (1021C)
Prerequisite: 93 or above average in English I or Honors English I Honors courses include more rigorous, intensive application of core content at or above grade level with required independent reading and research at an accelerated pace.

## SOCIAL STUDIES

American Studies II (202C)
American Studies II is a continuation of American Studies I. It covers from Industrialization to World War II. Emphasis is placed on historic, economic and political developments throughout the world as well as the United States during this time period.
OR
Honors American Studies II (2021C)
Prerequisite: 93 or above average in American Studies I/Civics
Honors courses include rigorous, intensive application of core content at or above grade level with independent reading/research at an accelerated pace.

## SCIENCE

Biology 1B (304C)
Prerequisite: Biology $A$
A continuation of Biology IA, topics include: water, biomolecules, enzymes; composition and organization of Prokaryotic and Eukaryotic cells; regulation of cell structure and function; communication between cells and environment; bioenergetics; photosynthesis; cellular respiration; metabolism; genetics, and the mechanisms of evolution. Research articles on current scientific topics will be evaluated throughout the semester. Emphasis will be placed on introducing and developing laboratory skills and providing hands-on experience with modern laboratory equipment.

## OR

Honors Biology 1B (3041C)
Prerequisite: 93 or above average in Biology A or Honors Biology A
Honors Biology $B$ includes rigorous, intensive application of core Biology 1B content at or above grade level with independent reading, research, and laboratory investigations at an accelerated pace.

## MATH

Algebra I (361C)
Algebra I builds upon the concepts introduced in Algebra Concepts which includes thorough investigation of the real number system; equations and inequalities; graphing; systems of equations; factoring; simplifying polynomials and rational algebraic expressions, probability and statistics. Introduction of the complex number system includes a comprehensive study of the operations of radicals.
OR
Honors Algebra I (3611C)
Prerequisite: Algebra Concepts; 93 or above average in Algebra Concepts.
Honors includes more rigorous, intensive application of core content at or above grade level that ensures comprehensive study of all topics with required independent research at an accelerated pace.

## Plane Geometry (362C)

Plane Geometry is for all college bound and general education students. It includes the study of the properties of physical shapes such as angles, triangles, polygons, and circles. Integrated into the problem solving are the deductive reasoning approach, practical applications, and the use of basic algebraic concepts to arrive at solutions.

## OR

Honors Plane Geometry (3621C)
Prerequisite: Algebra I; 93 or better in Algebra Concepts and Algebra I
Honors includes more rigorous, intensive application of core content at or above grade level that ensures comprehensive study of all topics with required independent research at an accelerated pace.

## Algebra II (363C)

Algebra II is an expansion of the concepts learned in Algebra I. The topics covered are mathematical operations involving polynomials, rational expressions, irrational, and complex numbers. Higher order quadratic equations, polynomial equations, and exponential and logarithmic functions will be part of this coursework. Students will be expanding their knowledge of analytic geometry, as well as probability and statistics.
OR
Honors Algebra II (3631C)
Prerequisite: Plane Geometry; 93 or above in Honors Algebra I and Honors Plane Geometry
Honors includes more rigorous, intensive application of core content at or above grade level that ensures comprehensive study of all topics with required independent research at an accelerated pace.

## Trigonometry (366C)

Trigonometry is recommended for students who have done well in previous math courses and who have college ambitions in which math are utilized. This course places emphasis on the understanding of definitions and principles of trigonometry and their applications to problem solving. It includes the circular functions concept, identities, radian measure, triangle solutions and vectors. This course includes polar equations and logarithmic fundions. Solving right triangles based on trigonometric functions is developed through the course. Scientific calculators are used throughout this course.
OR
Honors Trigonometry (3661C)
Prerequisite: Algebra II; 93 or above in Honors Algebra II
Honors includes more rigorous, intensive application of core content at or above grade level that ensures comprehensive study of all topics with required independent research at an accelerated pace.

## PHYSICAL EDUCATION

PE-10 (400N)
This course includes a wide variety of sport activities, health topics, fitness and nutrition. Emphasis is placed on the development of fundamental sport skills and components of personal fitness. Collaborative problem-solving, team building, and communication skills are introduced throughout each lesson. The program teaches students the skills necessary to weigh options, to make responsible decisions and to develop behaviors that promote healthful living. In addition, freshmen will participate in a Family Consumer Science Unit.

## CAREER PREP

## (Career Center courses will meet for 2 periods except where noted)

## Computer Systems Networking I (760I)

Students of computer systems networking and telecommunications learn how computers communicate with each other. They study the design, installation, and improvement of computer networks and related software. Curriculum includes instruction in operating systems and applications; systems design and analysis; networking theory and solutions; types of networks; network management and control; network and flow optimization; security; configuring; and troubleshooting.

## Broadcast Communications I (810C)

As an introduction to careers in TV/Radio, film, digital video, animation and business communications, students will learn through hands-on projects how to operate a wide variety of equipment. Skills and techniques directly related to careers in this field will be practiced. Students will work on a weekly Television News Magazine Show.

## Health Careers I (822C)

Health Careers I is an introduction to the basic concepts of health care including infection control, the medical and legal aspects of health care, and introduction information on various careers in health care.

## Nurse Assistant I (825C) 2 Periods

Students learn basic nursing skills such as bed making, bathing and providing personal care to patients, moving and transporting patients, patient safety and infection control. Students practice these skills in the nursing laboratory.

## Collision Repair Technology I (834C)

Students entering this program begin by learning safety procedures and practicing personal safety and vehicle construction basics. Students will also learn how to repair minor damage, filling with plastic as well as other repairs to sheet metal. Basic MIG and Oxy-Acetylene welding is covered.

## Automotive Technology I (837C)

This course includes orientation to the Automotive Career, basic shop procedures, safety, manuals/databases, tools and equipment. Students will also study tires and wheels, wheel balancing, suspension systems, steering systems, wheel alignment, and brake systems.

## Diesel Technology I (840C)

The course focuses on basic shop procedures, safety, manuals/database, tools and equipment. Students will progress to engine lubrication and preventative maintenance schedules, tires and wheels, and basic electrical systems. This is a three year course that covers ASE guidelines.

## Construction Technology I (846C)

Students will begin to learn the processes that are involved to gain employment in the construction field especially those related to residential home construction. Students begin by learning basic safety, blueprint reading, the safe use of hand and power tools, and the different types of materials used in construction. Students will do related tasks and projects. The course will prepare students for studies in a related trade school or college program.
(Construction Technology is a cluster industry/occupational program that provides for a sequence of secondary technical core courses in a program of study in carpentry, masonry, plumbing, heating and electrical.)

Electrical \& Industrial Technology I (849C)
Level I students learn safety, hand/power tools, digital meters, basic electrical and electronic principals, AC \& DC (alternating \& direct current), relays, contactors, motion sensors, computer hardware fundamentals, stepper motors, synchronous motors, series and parallel circuitry, introduction to robotics and basic residential electricity wiring principals.

## Precision Machine Technology I (855C)

This course introduces students to machining operations as they relate to the metalworking industry. Topics include machine shop safety, shop math, blueprint reading, measuring

## HVAC/Plumbing I (852C)

Students will be introduced to the basic tools and safety of plumbing and refrigeration. Students will learn various types of piping, basic electricity, soldering and brazing practices. Mathematics appropriate to the trade will be used and students will be introduced to blueprint reading and various piping installation.

## Welding Technology I (858C)

Students will be introduced to basic safety and welding symbols. Students will learn to read welding drawings and prepare the base metal for welding or cutting.

## Computer-Aided Drafting I (870C)

Students get introduced to blueprint reading, engineering sketching and the math related to engineering disciplines. This course will establish the building blocks for a solid foundation in all design related occupations. Computer-Aided Drafting \& Design is incorporated with advanced drafting techniques. Students learn to visualize and draw technically with a state of art software used in industry. The universal language of drafting is the most influential part of the CAD I curriculum. A student will create a portfolio showcasing his/her achievements and abilities.

Cosmetology I (879C)
Prerequisite: The Cosmetology program requires a fee of approximately $\$ 250.00$, paid prior to the first day of class. ALL students MUST complete the following by the first day of class: (1) Proper legal forms requiring social security number and notarization (2) Proper uniforms and professional shoes (3) Kit and mannequin fees. Students transferring from another district will have two weeks to comply. Body piercing, other than ears, is not allowed. This program is offered first at a sophomore level due to state regulation hour requirements, then to juniors. Cosmetology is a three year, 1250 hour course that is state regulated. During Level I, students will become familiar with many aspects of the beauty industry. It is a basic introduction to personality development, professional ethics, hygiene and good grooming, shampooing, manicuring, scalp treatments, permanent waving, hair coloring, haircutting, thermal styling, hair styling, sanitation and sterilization, and state rules and regulations guiding cosmetology and Skills USA.
Child Care I (882C)
This course is designed to prepare students to work in the child care field or pursue a degree in early childhood education. Students will develop an understanding of child growth and development in all areas (physical, intellectual and social/ emotional) in the early childhood stages (infancy, toddler and preschool). The student will learn the proper techniques for creating a safe and healthy environment. REQUIREMENT: For the safety of students and children involved in this program, and to comply with Child Care industry standards, students are required to dress in neat, appropriate attire. Body piercing, other than in the ear, is NOT allowed.
Culinary Arts I (885C)
Prerequisite: Entering the Culinary Arts program requires purchasing proper uniforms, approximately $\$ 40.00$. This fee must be paid prior to the 1st day of class or the student will be removed from the course. Students transferring from another district will have 2 weeks to comply. Body piercing is not allowed. This program will prepare students to work in the food service industry or pursue a degree in hospitality. The primary focus is to develop the basic knowledge and skills needed in areas of food and prep service while instilling the strong work ethic needed for success. Students will maintain a portfolio which will include their day to day activities of the restaurant in addition to special assignments, thematic menu planning and research of ethnic diets. Students rotate work stations to better understand the operation of a restaurant facility, including maintenance, laundry, menu planning, dessert baking, washing dishes and chef responsibilities.

## Law Enforcement I (891C)

Law Enforcement I is an introduction to the basic concepts of Law Enforcement including patrol functions, military courtesy, communications, equipment and legal aspects associated with this career. It will cover the history of law enforcement, local, state, and national governments. Training in the basics of fingerprinting and handcuff- ing is also practiced. Physical training is also an integral part of the program. Students are required to have a uniform in all three levels of the program. No student will be accepted if they are on probation, parole, or have been arrested for a misdemeanor.

## GRADE 11

Students will take 8 credits as outlined below. 4 credits will be taken during semester 1 and 4 credits will be taken during semester 2.

## REQUIRED COURSES:

## ENGLISH

English III (103C)
English III involves an advanced study and practice of the principles of effective writing with an emphasis on the various types of discourse and the research process. Students will explore the general background, progress, and development of American literature, including appropriate vocabulary. Students are required to complete a research paper.

## OR

Honors English III (1031C)
Prerequisite: 93 or above average in English II or Honors English II
Honors courses include more rigorous, intensive application of core content at or above grade level with required independent reading and research at an accelerated pace.

## SOCIAL STUDIES

United States History II (203C)
United States History II is a continuation of United States History I. It covers from the Roaring Twenties to the present. Emphasis is placed on historic, economic, and political developments that lead to an understanding of today's American society, its problems, and its achievements.

Honors United States History II (2031C)
Prerequisite: 93 or above average in United States History I
Honors courses include more rigorous, intensive application of core content at or above grade level with required independent reading and research at an accelerated pace

## SCIENCE

Chemistry 1A (310C)
Prerequisite: Biology 1A and 1B
Chemistry A integrates basic inorganic chemistry with math topics. The content of this course includes studying properties of matter and energy, naming compounds and writing chemical formulas, properties of mixtures, chemical bonding, atomic theory, behavior of electrons in atoms, periodicity of elements, the mole, using models to illustrate bonding, and stoichiometry. All students must complete Chemistry B in order to complete a full chemistry course.

## OR

Honors Chemistry 1A (3101C)
Prerequisite: 93 or above average in Honors Biology 1B, and 93 or above average in Algebra I
Honors Chemistry A includes more rigorous, intensive application of core Chemistry A content at or above grade level with required independent reading, research, and laboratory investigations at an accelerated pace. All students must complete Honors Chemistry B or Chemistry B in order to complete a full Chemistry course.
AND/OR
Chemistry 1B (311C)
Prerequisite: Chemistry A and Algebra I, Biology A \& Biology B or Honors Biology A and Honors Biology B
Chemistry B , the continuation of Chemistry A , will investigate additional chemistry content. The topics include the use of stoichiometry relationships to calculate reactants, products, and limiting reactants and products in a chemical reaction, synthesis, decomposition, replacement and combustion reaction, thermodynamics, gas laws, solutions, molarity, and acid-basesalt/buffers theory. This course is required in order to complete a full chemistry course following Chemistry A.
OR
Honors Chemistry 1B (3111C)
Prerequisite: 93 or above average in Honors Chemistry A, and 93 or above average in Algebra I
Honors Chemistry B includes more rigorous, intensive application of core Chemistry B content at or above grade level with required independent reading, research, and laboratory investigations at an accelerated pace. Honors Chemistry B or Chemistry B is a requirement that must be taken in order to complete a full chemistry course.

## MATH

Plane Geometry (362C)
Plane Geometry is for all college bound and general education students. It includes the study of the properties of physical shapes such as angles, triangles, polygons, and circles. Integrated into the problem solving are the deductive reasoning approach, practical applications, and the use of basic algebraic concepts to arrive at solutions.

## OR

Honors Plane Geometry (3621C)
Prerequisite: Algebra I; 93 or better in Algebra Concepts and Algebra I
Honors includes more rigorous, intensive application of core content at or above grade level that ensures comprehensive study of all topics with required independent research at an accelerated pace.

## Algebra II (363C)

Algebra II is an expansion of the concepts learned in Algebra I. The topics covered are mathematical operations involving polynomials, rational expressions, irrational, and complex numbers. Higher order quadratic equations, polynomial equations, and exponential and logarithmic functions will be part of this coursework. Students will be expanding their knowledge of analytic geometry, as well as probability and statistics.
OR
Honors Algebra II (3631C)
Prerequisite: Plane Geometry; 93 or above in Honors Algebra I and Honors Plane Geometry
Honors includes more rigorous, intensive application of core content at or above grade level that ensures comprehensive study of all topics with required independent research at an accelerated pace.
Probability and Statistics (364C)
Probability and Statistics is intended for college-bound students who anticipate needing this material for their future courses of study. Students with an interest in business or the social sciences (psychology, sociology, etc.) should strongly consider taking this elective course. Probability and both descriptive and inferential statistics will be discussed at length. This course cannot be taken until Algebra II credit is achieved.

## OR

Honors Probability and Statistics (3641C)
Prerequisite: Algebra I, Plane Geometry, and Algebra II; 93 or above in Honors Algebra II
Honors includes more rigorous, intensive application of core content at or above grade level that ensures comprehensive study of all topics with required independent research at an accelerated pace.

## Trigonometry (366C)

Trigonometry is recommended for students who have done well in previous math courses and who have college ambitions in which math is utilized. This course places emphasis on the understanding of definitions and principles of trigonometry and their applications to problem solving. It includes the circular functions concept, identities, radian measure, triangle solutions and vectors. This course includes polar equations and logarithmic functions. Solving right triangles based on trigonometric functions is developed through the course. Scientific calculators are used throughout this course.
OR
Honors Trigonometry (3661C)
Prerequisite: Algebra II; 93 or above in Honors Algebra II
Honors includes more rigorous, intensive application of core content at or above grade level that ensures comprehensive study of all topics with required independent research at an accelerated pace.

## Pre-Calculus (365C)

Pre-Calculus is for students whose previous math background is strong. This course offers an excellent background in linear algebra, functions, and a complete foundation for calculus. This particular course will also address some analytical geometry and the use of equations and inequalities as mathematical models.

## OR

Honor Pre-Calculus (3651C)
Prerequisite: Trigonometry; 93 or above in Honors Trigonometry and
Honors Algebra II
Honors includes more rigorous, intensive application of core content at or above grade level that ensures comprehensive study of all topics with required independent research at an accelerated pace.

## CAREER PREP

## Career Center courses will meet for 2 periods except where noted.

## Computer Systems Networking II (761II)

Students of computer systems networking and telecommunications learn how computers communicate with each other. They study the design, installation, and improvement of computer networks and related software. Curriculum includes instruction in operating systems and applications; systems design and analysis; networking theory and solutions; types of networks; network management and control; network and flow optimization; security; configuring; and troubleshooting.

## Broadcast Communications II (811C)

Prerequisite: Broadcast Communications I
This course expands skills learned in Level I. Advanced skills and techniques are stressed. Students will design and produce a weekly Television show, short films and work as staff for school-based productions. Internships, job shadowing and co-op placements are available at local TV/Radio stations.

Health Careers II (823C)
Health Careers II includes a focus on Anatomy and Physiology, communications, and medical terminology. Students perform health care skills such as hand washing, moving and transporting patients, and measuring and recording temperature, pulse, and respirations.

Nurse Assistant II (826C)
Prerequisite: Nurse Assistant I
Students advance their skills as they are instructed in measuring and recording temperature, pulse, respiration and blood pressure. They also practice special procedures and treatments which are pertinent to a nursing assistant's responsibilities. Medical terminology is introduced. Students participate in a 60-hour assisted living rotation and also clinical experience at a long term care facility. At the conclusion of this affiliation, they are eligible to take the PA State Nurse Aide Certification Examination.

Collision Repair Technology II (835C)
Prerequisite: Collision Repair Technology I Students progress at a rapid rate. Live work is done in the shop. Estimating on the computer and preparing work orders give the students a "hands-on" approach to all the learning activities. Major body alignment, theory, painting and detailing are emphasized.

Automotive Technology II (838C)
Prerequisite: Automotive Technology I
This course includes study of the automotive drivetrain. Students will work on clutch assemblies, standard transmissions/transaxles, automatic transmission/transaxles, drive lines, differentials, engines and cooling system.

## Diesel Technology II (841C)

Prerequisite: Diesel Technology I
The students will learn the operations of ASE steering and suspension systems and brake systems.
Construction Technology II (847C)

## Prerequisite: Construction Technology I

Students will begin to learn the various systems that are involved in the construction field especially those related to residential home construction. Students will learn about masonry, footers and foundations, floor systems, wall systems, and roof systems. Students will begin to build an $8^{\prime} \times 12^{\prime}$ module to learn all the related tasks. The course will also prepare students for studies in a related trade school or college program.

Electrical \& Industrial Technology II (850C)
Level II students learn advanced AC \& DC principals utilizing oscilloscopes, Basic Semi-Conductors (Diodes, Transistors, SCR'S, Light Emitting Diodes,) Introduction to Electronic Circuitry, Soldering, Basic Computer Building, Pneumatics, Industrial Motor Controls (Stop, Start, Jog, Reverse, Proximity Switches), Variable Frequency Drives, Introduction to Green Technology (Solar Cells), Introduction to PLC'S (Programmable Logic Controllers) conduit bending, Residential Services, communication and computer networking systems utilizing CAT 5 wiring. In addition students will build robotic circuitry and voice controlled robots.

## Precision Machine Technology II (856C)

Prerequisite: Precision Machine Technology I Students will move onto more complex and challenging projects and advance operations of measuring, layout, drilling, sawing, turning, and milling. The student can look forward to completing projects, which they can actually take with them and use once they are employed in the machine trades. Students will complete NIMS Job Planning, Bench work, \& Layout Certification, \& NIMS Drill Press Certification.

HVAC/Plumbing II (853C)
Prerequisite: HVAC I
Level II will cover air properties and distribution, basic electronics, compressors, metering devices and leak detection. Students will learn to read commercial drawings, install roof, floor and area drains, faucets and valves.

Welding Technology II (859C)
Prerequisite: Welding Technology I
Shielded metal ARC, oxy-fuel welding and cutting, drilling, shearing, layout, plasma cutting and gas metal ARC welding techniques are introduced. Students learn to make horizontal, flat, vertical and overhead welds.

## Computer-Aided Drafting II (871C)

Prerequisite: Computer-Aided Drafting I and or CAD Elective
The returning student has the opportunity to experiment with mechanical, architectural, and electrical-electronic drafting before specializing in one of these areas. Drawing techniques learned in level 1 are used in real world scenarios. A student will develop his/her mind in design. A student will learn how things work, how things are mass produced, how things are manufactured and how things are built. A student will create a portfolio showcasing his/her achievements and abilities.

Cosmetology II (880C)
Prerequisite: Cosmetology I
Level II is designed to further enhance the students' knowledge in the basic skills learned in Level I. It also introduces the students to new procedures such as facials, facial makeup, skin care, eyebrow arching, finger waving, eye-tabbing, nail applications, nail art and chemical and thermal hair relaxing. Theory work required throughout the three year course includes anatomy and physiology, chemistry, electricity and light therapy and salon business. After accumulation of practice hours, the student will participate in live clinical work.

Child Care II (883C)
Prerequisite: Child Care I
Students will plan activities for young children related to art, storytelling, dramatic play, music, math, science and social studies. Hands-on experiences include tutoring elementary children, observing and working in the on-site preschool and at the Child Development Center. An emphasis is given to communication and positive interaction with co-workers, parents and children.

Culinary Arts II (886C)
Prerequisite: Culinary Arts I
Students will become familiar with proper terminology and frequently used measurements. All students will be actively involved in thematic menu planning, advertisement and presentation of foods. Students (Level II and Level III) will have the opportunity to prepare and to serve different types of foods to our faculty and staff in our modern, well equipped kitchen and dining room.

## Law Enforcement II (892C)

## Prerequisite: Law Enforcement I

The course will stress patrol and related duties, the American legal system, techniques used in police laboratories, crime scene and accident investigation, interview techniques, Motor Vehicle Code, Criminal Law, rules of criminal procedure, firearms, emergency and disaster situations, and patrol techniques. Students are required to participate in physical training and to wear a uniform daily. Students are encouraged to participate in duel enrollment.

## GRADE 12

Students will take 8 credits as outlined below. 4 credits will be taken during semester 1 and 4 credits will be taken during semester 2 .

## REQUIRED COURSES:

## ENGLISH

English IV (104C)
English IV consists of the chronological organization of English Literature including nonfiction, short stories, plays, novels, and poetry, which shows the progression of themes through the various eras of English history. Attention is also given to the inductive and deductive writing process and to advanced points of grammar. An integral part of the course will be to write a research paper and to master correct research paper format. Students will read and critically analyze British Literature. Required compositions will concentrate on literary elements.
OR
Honors English IV (1041C)
Prerequisite: 93 or above average in English III or Honors English III
Honors courses include rigorous, intensive application of core content at or above grade level with independent reading/research at an accelerated pace.

## SOCIAL STUDIES

United States Government (204C)
United States Government is a senior level course that introduces the student to various levels of government and politics in the United States. The course emphasizes constitutional development, citizenship and rights, the electoral process, and the role of each branch of government. Students will also examine the government's ability to handle contemporary issues both domestic and foreign.
OR

## Honors United States Government (2041C)

Prerequisite: 93 or above average in United States History II
Honors courses include rigorous, intensive application of core content at or above grade level with independent reading/research at an accelerated pace.
OR
Economics (212C)
Economics is a senior level course where students will engage in topics that explore basic economics reasoning, economic systems as well as American Free Enterprise. Personal and Institutional relationships with markets, business, and labor, money, banking, and finance will also be discussed.
OR
Honors Economics (2121C)
Prerequisite: 93 average or above in United States History II
Honors courses include rigorous, intensive application of core content at or above grade level with independent reading/research at an accelerated pace.

## SCIENCE

Environmental Biology (306C)
Prerequisite: Biology 1B
Environmental Biology is an introduction to how the world we live in works, how we use and abuse nature, and what we can do to protect our environment for ourselves and future generations. The topics include ecology, populations, natural resources, pollution, society, and the environment.
OR
Human Biology (3354C)
Prerequisite: Essentials of Biology A or Biology A and Biology B
Human biology examines our species from a broad biological context. This course is designed to teach students about the structure and function of their bodies and to describe the delicate internal balance necessary to maintain health. Human development, aging, and the impact our species has on the environment are also covered.
OR
Chemistry 1B (311C)
Prerequisite: Chemistry A and Algebra I, Biology A \& Biology B or Honors
Biology A and Honors Biology B
Chemistry B, the continuation of Chemistry A , will investigate additional chemistry content. The topics include the use of stoichiometry relationships to calculate reactants, products, and limiting reactants and products in a chemical reaction, synthesis, decomposition, replacement and combustion reaction, thermodynamics, gas laws, solutions, molarity, and acid-basesalt/buffers theory. This course is required in order to complete a full chemistry course following Chemistry A.
OR
Honors Chemistry 1B (3111C)
Prerequisite: 93 or above average in Honors Chemistry A, and 93 or above average in Algebra
Honors Chemistry B includes more rigorous, intensive application of core Chemistry B content at or above grade level with required independent reading, research, and laboratory investigations at an accelerated pace. Honors Chemistry B or Chemistry B is a requirement that must be taken in order to complete a full chemistry course.

## MATH

Algebra II (363C)
Algebra II is an expansion of the concepts learned in Algebra I. The topics covered are mathematical operations involving polynomials, rational expressions, irrational, and complex numbers. Higher order quadratic equations, polynomial equations, and exponential and logarithmic functions will be part of this coursework. Students will be expanding their knowledge of analytic geometry, as well as probability and statistics.
OR

Honors Algebra II (3631C)
Prerequisite: Plane Geometry; 93 or above in Honors Algebra I and Honors Plane Geometry
Honors includes more rigorous, intensive application of core content at or above grade level that ensures comprehensive study of all topics with required independent research at an accelerated pace.
Probability and Statistics (364C)
Probability and Statistics is intended for college-bound students who anticipate needing this material for their future courses of study. Students with an interest in business or the social sciences (psychology, sociology, etc.) should strongly consider taking this elective course. Probability and both descriptive and inferential statistics will be discussed at length. This course cannot be taken until Algebra II credit is achieved.

## OR

Honors Probability and Statistics (3641C)
Prerequisite: Algebra I, Plane Geometry, and Algebra II; 93 or above in Honors Algebra II
Honors includes more rigorous, intensive application of core content at or above grade level that ensures comprehensive study of all topics with required independent research at an accelerated pace.

## Trigonometry (366C)

Trigonometry is recommended for students who have done well in previous math courses and who have college ambitions in which math is utilized. This course places emphasis on the understanding of definitions and principles of trigonometry and their applications to problem solving. It includes the circular functions concept, identities, radian measure, triangle solutions and vectors. This course includes polar equations and logarithmic fundions. Solving right triangles based on trigonometric functions is developed through the course. Scientific calculators are used throughout this course.
OR
Honors Trigonometry (3661C)
Prerequisite: Algebra II; 93 or above in Honors Algebra II
Honors includes more rigorous, intensive application of core content at or above grade level that ensures comprehensive study of all topics with required independent research at an accelerated pace.

## Pre-Calculus (365C)

Pre-Calculus is for students whose previous math background is strong. This course offers an excellent background in linear algebra, functions, and a complete foundation for calculus. This particular course will also address some analytical geometry and the use of equations and inequalities as mathematical models.
OR

Honor Pre-Calculus (3651C)
Prerequisite: Trigonometry; 93 or above in Honors Trigonometry and Honors Algebra II
Honors includes more rigorous, intensive application of core content at or above grade level that ensures comprehensive study of all topics with required independent research at an accelerated pace.
OR
Calculus I (367C)
Calculus I includes both derivatives and integrals of polynomials, exponential functions, trigonometric functions, and logarithmic functions. Applications of derivatives and integrals are also introduced. A strong foundation in algebra and graphing functions is essential.

## Honors Calculus I (3671C)

Prerequisite: Pre-Calculus or Honors Pre-Calculus; 93 or above average in Honors Pre-Calculus and Honors Trigonometry Honors includes more rigorous, intensive application of core content at or above grade level that ensures comprehensive study of all topics with required independent research at an accelerated pace.

## CAREER PREP

## Career Center courses will meet for 2 periods except where noted

 Computer Systems Networking III (762III)Students of computer systems networking and telecommunications learn how computers communicate with each other. They study the design, installation, and improvement of computer networks and related software. Curriculum includes instruction in operating systems and applications; systems design and analysis; networking theory and solutions; types of networks; network management and control; network and flow optimization; security; configuring; and troubleshooting.

## Broadcast Communications III (812C)

Prerequisite: Broadcast Communications II
Students will be responsible for the operation of school related TV facilities, school district productions, and special projects. They will work on weekly television programming. Advanced digital video, Photography and Computer Generated Graphics will be focused on. Field trips, co-op, job shadowing, and internships are available for students interested in pursuing careers in this field.

## Health Careers III (824C and 824BC)

Health Careers III provides two days of classroom instruction at the Career Center and three days at the Hazleton General Hospital where there are assigned observational clinical experiences in twenty different departments. The students also have a weekly presentation by hospital personnel on various healthcare careers and issues.

Nurse Assistant III (827C)
Prerequisite: Assistant II
Students continue in nursing assistant skills and serve a ten week clinical affiliation at a local hospital. During this experience they are afforded the opportunity to observe the operation of various departments in the hospital.

## Collision Repair Technology III (836C)

Prerequisite: Collision Repair Technology II
Students move to advanced painting including Base and clear coatings. Students sharpen their skills and prepare for the world of work as an Auto Body Technician. Co- op is available for qualifying students.
Automotive Technology III (839C)
Prerequisite: Automotive Technology II
This course includes basic electrical and electronic theory, battery service, starting system, charging system, ignition system, fuel system, exhaust system, emission control system, air conditioning, heaters, and Pennsylvania Vehicle Safety Inspection Course.
Diesel Technology III (842C)

## Prerequisite: Diesel Technology II

Students will study advanced electrical and electronic ASE Diesel Engines overhaul and PA State Inspection Course to inspect class 7 vehicles. The student will also be introduced to the heating, ventilation and air conditioning system.
Construction Technology III (848C)
Prerequisite: Construction Technology II
Students will continue to learn the various systems that are involved in the construction field especially those related to residential home construction. Students will continue to build the $8^{\prime} \times 12^{\prime}$ module and learn about doors and windows, roofing materials, exterior finishes, and interior finishes. The course will also prepare students for studies in a related trade school or college program.
Electrical Technology III (851C)

## Prerequisite: Electrical Technology II

Level III Students Apply What They Learned In Levels I And II But On An Advanced Level. Projects Include PLC Controlled Process Level, Mechatronics (Advanced Robotics And Pneumatics) In Depth Industrial Controls, PLC Controlled L.E.D. Readouts And Thumb Wheels, Trouble Shooting, Raspberry Pie and Adruino Circuits. In level III the student will have the opportunity to apply for a work program in which they will work for an electrical contractor on a part time basis during school hours.

## Precision Machine Technology III (857C)

Prerequisite: Precision Machine Technology II Students will continue to develop their skills on the manual machines covered in Levels I and II, while also learning basic programming and operation of high tech CNC machines, $G$ and $M$ codes along with conversational CNC training. For students who display an acceptable level of competence in the material covered and possess a high level of maturity, a co-op program is available. Students will complete NIMS Turning between Centers Certification, \& NIMS Milling Certification.

## HVAC/Plumbing III (854C)

Prerequisite: HVAC II
Students will be expected to troubleshoot all heating and cooling systems. Students will read more advanced commercial drawings. Regional and local plumbing codes will be covered. Advanced math for HVAC and plumbing will be integrated and students will work on the modular home.
Welding Technology III (860C)
Prerequisite: Welding Technology II
Students learn the principles of oxy-fuel cutting, aluminum and stainless steel TIG welding, fabrication from sketches, blueprints and safety including care and maintenance of equipment. Plasma ARC welding is introduced. Students will learn the importance of weld quality.
Computer-Aided Drafting III (872C)
Prerequisite: Computer-Aided Drafting II
The Level III student will prepare for a certification test that covers material related to general drafting and design. The students will learn presentation skills and become confident in abilities. A level III student will be taught a new highly technical 3D modeling software that is the cutting edge of technology. He / She will be able to design, prototype, assemble and simulate a design before it is ever produced. These skill sets will prepare a student for the highly technical world that awaits a student in postsecondary or the marketplace. A certificate may be attained if a student scores well and a professional portfolio will be created showcasing a student's achievements and abilities
Cosmetology III (881C)
Prerequisite: Cosmetology II
Level III places emphasis on practicing and improving the skills and knowledge needed to take the state board test. Live clinical work is continued on a bi-weekly basis. Students attend trade related shows to increase their awareness of the ever changing trends in the beauty industry. After completing the three year cosmetology program, students will have the opportunity to take their state board test and if passed, will receive their Pennsylvania State Cosmetology License.
Child Care III (884C)
Prerequisite: Child Care II
Students get clinical experience working in the on-site preschool, learning to develop curriculum using a thematic approach. They will explore job opportunities and develop strategies for finding employment in the field.

## Culinary Arts III (887C)

Prerequisite: Culinary Arts II
In addition to the responsibility of operating a restaurant, all students will have the opportunity to develop entrepreneurial skills by planning and prepping for extracurricular school activities requiring food service. Students will apply skills in catering experiences and menu development.

## Law Enforcement III (893C)

## Prerequisite: Law Enforcement II

Stressing the roles and functions of a Law Enforcement Officer, this course focuses on the Criminal Investigation and the minimum standards and expectations for training and performance for entry level Law Enforcement personnel. Students are required to complete Emergency Responder training. Students will work on career and college expectations at the end of their training.

## ELECTIVES

Students may take a second math class as one of their electives. If they choose a second math as an elective, that math course will be taken during semester 2.

## MATH Course Sequence

| Algebra 1 | Plane <br> Geometry | Algebra II <br> Honors <br> Algebra 1 | Honors <br> Algebra II <br> Plane <br> Geometry | Honors <br> Trigonometry | Honors <br> Pre- <br> Calculus |
| :---: | :---: | :---: | :---: | :---: | :---: | | Calculus |
| :---: |
| Calculus |

French II (122C)
Prerequisite: French I or Honors French I
French II provides a smooth transition from Level I with a review of the vocabulary, grammar, and cultural topics previously learned. The focus is on increasing vocabulary and grammar skills through speaking, reading, writing, and listening. Correct pronunciation and practice exercises are emphasized.
OR
Honors French II (1221C)
Prerequisite: 93 or above average in French I or Honors
French I
Honors courses include more rigorous, intensive application of core content at or above grade level with required independent reading and research at an accelerated pace.

## German II (132C)

Prerequisite: German I or Honors German I
German II continues to focus on developing basic communication skills by using vocabulary, grammar, and cultural topics learned in German I. Topics covered in German II expand on the essentials for reading, writing, and speaking the language.
OR

Honors German II (1321C)
Prerequisite: 93 or above average in German I or Honors German I
Honors courses include more rigorous, intensive application of core content at or above grade level with required independent reading and research at an accelerated pace.

Spanish I (151C)
Spanish I is an introduction to the language, culture, geography, and people of the Spanish-speaking world. Basic sound patterns, functional vocabulary, and fundamental grammatical skills are introduced.
Spanish II (152C)

## Prerequisite: Spanish I or Honors Spanish I

Spanish II reviews and reinforces vocabulary and basic grammar skills taught in Spanish I. The student is introduced to the present progressive and preterite tenses of the verb. Students converse and write using more complex grammar and vocabulary, and major cultural concepts are taught through cultural readings.

## OR

## Honors Spanish II(1521C)

Prerequisite: 93 or above average in Spanish I or Honors Spanish I Honors courses include more rigorous, intensive application of core content at or above grade level with required independent reading and research at an accelerated pace.

## Spanish III (153C)

Prerequisite: Spanish II or Honors Spanish II
Spanish III is designed to review the basic grammar skills learned in Spanish I and Spanish II. Students are introduced to more complicated grammar structures. Speaking, writing, reading, and listening skills are reinforced through active student participation in class activities.
OR
Honors Spanish III (1531C)
Prerequisite: 93 or above average in Spanish II or Honors Spanish II
Honors courses include more rigorous, intensive application of core content at or above grade level with required independent reading and research at an accelerated pace.

## Computer Applications/Keyboarding (712C)

Computer Applications and Keyboarding will enhance the development of basic keyboarding skills, communication skills, and document processing skills using computers. Students will learn how to prepare reports, outlines, letters, tables, resumes, applications, and agendas utilizing word processing software.
Accounting I (701)
Accounting I introduces the basic accounting concepts and procedures used by sole proprietorships as well as partnerships. Students taking this course will learn how to keep business records for both service and merchandising businesses Skills learned can be used directly on the job or to provide the necessary foundations for more advanced business courses in college.

## Microsoft Word/Excel (713) 1 period

Prerequisite: Computer Applications/Keyboarding Microsoft Word/Excel will continue to refine keyboarding skills while enabling students to perform the advanced functions of word processing and spreadsheet soft- ware. Students will be introduced to spreadsheet software while setting up various accounting and business related problems such as budgets, payroll, worksheets, and financial statements. Graphics and database management software in a graphics environment using Microsoft Office for Windows will be introduced. Students will improve skills necessary for initial employment, and/or preparation skills necessary for college courses.
Crafts I (605) or (N605)
This course will provide the students with basic construction methods of a variety of crafts such as: ceramics, metalsmithing, coiled basketry, plaster sculbure and weaving. Appropriate tools will be used (looms, pottery wheel, files, saws and rasps, soldering torches, buffing machine). Additional craft activities may also be explored as per instructor.
Marching Band (661) (661) or (N661)
Prerequisite: Intermediate instrumental skills Marching Band will provide students with an ensemble experience in which they can develop advanced instrumental techniques while performing a variety of musical styles. There are numerous public performances to display acquired skills. An outgrowth of this group is the following performing groups: pep band, stage band, woodwind choir, brass choir, and other small ensembles.

## Integrated Welding (914) This class is limited to 14 students.

This program will enable students to understand the welding process. The course will contain lessons on safety, metals, gases, joint geometry, machines and tools. The student will become familiar with the following processes: oxyfuel, welding, and cutting, plasma cutting, shielded metallic arc and mig welding.

## Manufacturing Technology (915)

A cluster industry/occupational program that provides for a sequence of secondary technical core courses. This program prepares individuals to apply knowledge and skills in the production and manufacturing industrial fields.

## CAD Drafting (913)

CAD-Drafting is especially designed to give the pre-engineering student an advantage with introductory skills in engineering drawing, descriptive geometry, computer-aided drawing, and computer-aided manufacturing.
Construction Technology (924)
This course is an instrumental program that prepares students to apply technical knowledge and skills in carpentry, plumbing, electrical, cabinetmaking and blueprint reading to hands on woodworking and metal projects. Instruction consists of orientation to residential construction problems, trouble shooting and repair, maintenance practices and procedures that include the use of hand tools and power tools, materials and supplies.

## Introduction to Restaurant Services (930)

A basic course that includes operations and skills sets of various careers in hospitality and restaurant occupations. Course emphasis will include cleaning, baking, sanitation, sterilization, and exploring various job opportunities.

## Basic Home Repairs (928)

This course is a basic introductory program that prepares individuals to apply technical skills to repair, service, maintain and diagnosis problems in residential home and maintenance and repairs.

## Small Engine Repair I (955)

This is a hands-on program designed to give students, 10th - 12th grades, skills needed to repair, service, maintain, and diagnose problems on a variety of small internal combustion engines as used on portable power equipment such as lawn mowers, snowmobiles, motorcycles, pumps, and generators. Instruction also includes the use of technical and service manuals, specialized and hand tools, and diagnostic test equipment.

## Health and Wellness 10 (401H)

This course is designed to contribute to the physical, intellectual, social and emotional well-being of the student. The curriculum is devoted to purposeful instruction in developmentally appropriate activities to promote a positive selfconcept through fitness, sport, swimming and lifetime activities. Each student is able to achieve success according to his/her own ability. The Presidential challenge and Fitnessgram are administered to determine each student's needs. The Health component includes Drug and Alcohol awareness and Nutrition.

## Probability and Statistics (364H)

Probability and Statistics is intended for college-bound students who anticipate needing this material for their future courses of study. Students with an interest in business or the social sciences (psychology, sociology, etc.) should strongly consider taking this elective course. Probability and both descriptive and inferential statistics will be discussed at length. This course cannot be taken until Algebra II credit is achieved.

## Psychology I (223H)

Psychology introduces the student to the fascinating study of human thinking and behavior. Students will explore the roles that emotion, stress, heredity, environment, and motivation play in human development. Current topics in psychology will also be analyzed, discussed and critiqued. This elective is open to juniors and seniors.

## Anatomy and Physiology (307C)

Prerequisite: Biology 1A and Biology 1B
Physiology is an elective course designed to prepare students entering the allied health field, especially nursing, pre-med, dentistry physician's assistant, and physical therapy. The course focuses on a projects based design, lecture and discussion with practical lab experiences to teach the relationship between structure (anatomy) and function (physiology) of the human body.

College Board SAT Preparation Course (119C)
This course is a one semester elective for $11^{\text {th }}$ grade students interested in preparing for the College Board entrance exam (SAT). The course will emphasize test taking skills, familiarity with the test format and grading, and review of relevant topics. Critical reading, mathematics, and writing will be covered in this one credit elective course. Prerequisites are Algebra II and English II.

