

## **SENIOR HIGH COURSE DESCRIPTIONS FOR 2010-2011**

***\*\*Some elective courses require mandatory attendance after the school day. These elective courses s will be indicated by \*\* before the course name. These elective courses should be discussed with the guidance counselors and teachers to best determine if you can fulfill the obligations of these elective course.***

### **ART**

#### **Art I - 1 Credit**

This course initiates a comprehensive introduction to the visual arts, designed for all students in grades 9-12, and is not limited to the artistically talented. Creative studio project units in drawing, painting, printmaking, sculpture, ceramics, crafts and computer graphics are integrated with lessons in the basic language known as the Elements of Art. Artists and works of art are also linked to lessons in order to familiarize students with the way art is created, its history and diversity, and its pervasive impact on our lives. Art-related careers are also explored. Student portfolios will be introduced and developed to establish a record of personal progress in and through art learning, understanding and hands-on activities.

#### **Art II - 1 Credit**

Recommendation - successful completion of Art I. This course is designed for students who wish to broaden and enrich a continuing interest in art. We will review and build upon the Art Elements foundation established in Art I. Learning and understanding will expand to include the Principals of Art and Design integrated with creative expressions, using a variety of traditional art media. Student art portfolios will continue to record progress in art studio and art-related knowledge and understanding.

#### **Honors Art III/IV - 1 Credit**

Students who schedule this advanced art class will be challenged to more complex skills, techniques and understanding in the visual arts. Over this two-year curriculum, studio work in two-and three-dimensional media will incorporate the Elements and Principals of Art, and will be coordinated to a comprehensive study of the history of art. Other important components of this course include sketch-journals, portfolio development, independent studio work, art research projects, Art Criticism, post-secondary art schools, and art-related careers. This course is weighted at 1.08 percent of the grade achieved.

#### **Photography & Digital Media-1 Credit**

Students class will learn to shoot, develop and enlarge traditional and digital photography using the traditional chemical darkroom as well as digital photo editing software. They will work in both black & white and color and take photos in a variety of traditional methods such as portraits and landscapes. They will also create digital slideshows and photo books. Students will create animations using stop motion photography and experiment with rudimentary computer animation techniques. Using digital video and editing software, students will film and edit short films focusing on a variety of areas such as a personal biography, an interview and a school sponsored activity. Maximum Enrollment is 10 students. Prerequisites: Art 1 & Art II.

### **BUSINESS TECHNOLOGY**

#### **Word Processing - 1 Credit**

This course is designed for those students who have limited experience with computers and will begin with the basics of computer use. Students will learn correct keyboarding techniques with an emphasis on both speed and accuracy. Students will learn the correct formatting of various business documents. Both Microtype and Microsoft Word software will be used for this course.

#### **Computer Applications - 1 Credit**

Since Microsoft *Word* is the number one selling word processing program in the world, this course is designed to teach students to create documents that can be enhanced to perfection using the many features that *Word* offers. After mastering *Word*, students will learn how to use Microsoft *Excel* to set up and manipulate spreadsheets. Next, students will learn how to create presentations using Microsoft *PowerPoint*. *PowerPoint* is the world's most widely used presentation software in the world today and is considered to be among the most prevalent form of persuasion technology. Lastly, students will complete a number of projects using the Internet to gather information and conduct research using various search engines.

### Computer Programming - 1 Credit

This course is designed to teach the fundamentals of programming using the Visual Basic programming language. Students will learn the basics of object-oriented programming and event-driven programming by working with forms, controls, and properties. Time will be spent completing hands-on projects covering topics such as calculations, data, variables, decision making, looping, menus, and graphics.

### Accounting I - 1 Credit

Students receive preparation for the real business world by being given an insight into the operation, function, and internal workings of business enterprise. The course will introduce basic accounting concepts, principles, and procedures. Students will complete accounting cycles for a service business operating as a proprietorship and a merchandising business operating as a corporation. This course will help to prepare students to enter college as a business major.

### Accounting II—1 Credit

This advanced course in accounting is designed to increase the competency of the student dealing with situations on a higher level. It provides the student with the opportunity to apply the basic principles that were learned in the first-year course to a variety of accounting systems and methods that are commonly found in business. Departmentalized accounting systems will be emphasized.

### Introduction to Business .1 Credit

This course will focus on introducing students to the world of business and help prepare them for meaningful and beneficial interaction with businesses in our economy. It will describe how the American business economy operates and help them prepare to make decisions as consumers, wage earners, and citizens within the economy.

### Business Law - 1 Credit

This course will focus on introducing students to their legal obligations and rights and responsibilities in business. Topics covered will include computer law, financial crimes, legal careers, environmental law, and international law. The ethics of law will be reviewed along with difference between rights and responsibilities for individuals and businesses.

### Honors Business Law -1 Credit

This course is designed to introduce students to the basics of law with emphasis on practical business applications. Students will become familiar with our nation's laws and how they were formed and enforced through ethics. This course is weighted at 1.08 percent of the grade achieved.

### Sports and Entertainment Management - 1 Credit

This course will familiarize students with the basics of marketing and business management in the sports and entertainment industries. Management topics discussed include the following: leadership (in a changing environment), finance, product management, people management, legal issues, ethical issues, customer relations, sales management, managing (groups, teams, operations, services, information technology, change), organizing and staffing, decision making process and career development.

### Web Page Design -1 Credit

Students will be introduced to the world of web page design. They will use HTML and JavaScript for the creation of web pages and also commercial web page design software. They will also learn to search for and retrieve information using the internet. Internet safety will also be addressed.

### Personal Finance—1 Credit

This course is designed to introduce students to various personal finance and practical life skills that will be pertinent in the very near future. Through numerous practical applications student will gain knowledge of finance fundamentals, long and short term funding sources, banking institutions, school loans, credit and finance charges, real estate and mortgages, car loans (buying), taxes and insurances, health insurance, understanding the stock market, and saving for the future. The course will also focus on job employment techniques and strategies (resume writing and interview skills) which become vital in a highly competitive work world.

### Desktop Publishing I - 1 Credit

This course will provide hands-on experience in the creation of electronically produced, printed materials with emphasis placed on original design and layout. Typical assignments will include flyers, charts, greeting cards, pamphlet covers, newspaper articles, photo manipulation, and PowerPoint Presentations. This course will introduce the following latest release publishing computer software-Microsoft Word, Adobe PageMaker, Adobe Photoshop, and Adobe Illustrator. Assessment will be achieved through evaluation of software knowledge and application, completed assignments and testing.

## SCHOOL TO WORK

### Senior High Co-op Theory

The Senior High Co-op Theory class is a part of the total career and occupational plan of student-learners to aid in making the transition from school to career. This class focuses on job readiness and acquisition skills, workplace safety, employment laws and regulations, employee benefits, union membership, paychecks and tax deductions, human relations and leadership skills, entrepreneurship, and the transition into post-secondary programs. Guest speakers from businesses and educational institutions are an integral part of the class. Juniors who choose the Co-op Work Experience aspect of the Co-op Program, must enroll in the Theory class. Seniors who are enrolled in the Co-op Work Experience aspect for the first time, must also enroll in the Theory class.

### Senior High Co-op Work Experience - .2 Credits—4 Credits possible

Senior High Co-op Work Experience is for the student who wants to begin working in his/her chosen career field while attending school. The student is paid while working and also earns credits toward graduation. The program is in conjunction with academic classes as well as career related electives needed to fulfill the requirements for graduation. Regular daily attendance in school is essential for the successful completion of this program. The student also needs to take the Co-op Theory class. The student **MUST** have a valid driver's license, a car, and a work permit to participate in this program. Students are expected to work an average of 15 hours each week for a total of 540 hours during the school year in order to receive 2 credits.

### Internships—1 Credit

This program is for juniors and seniors who want to discover more about a particular career. The students will be placed in a local business and work one day each week under the direct supervision of a person who will teach them about the job. Observing the employees and performing minor tasks is the focus of this program. The student will gain valuable on-the-job experience and knowledge in their future career. This is a non-wage earning program and only lasts one semester. Students in all academic areas are eligible to participate in this program after going through a screening process. Students will complete the necessary paperwork and submit a diary to the Co-op Coordinator after the Internship has ended.

### Career Shadowing

Students at the high school level may observe an employee of a local company for one school day to explore a stated career field. Students will complete the necessary paperwork before the Career Shadowing and submit a diary to the Co-op Coordinator no later than one-week after the Career Shadowing experience has ended. The Career Shadowing experience may occur at any time throughout the school year.

## ENGLISH

### English I - 1 Credit

This English course is divided into four aspects: Literature, grammar, vocabulary, and composition, with oral activities related to all four. Literature covers both American and World literature, including units on the short story, non-fiction, poetry, drama, and the novel. Outside reading is based on young adult literature and classical novels. Grammar is integrated with composition and vocabulary whenever possible and students work on individual units on some occasion. Some vocabulary words are taken from literature or current affairs, with emphasis on relating the topics to the students' own lives. Students are encouraged to consider long-range purposes for developing their reading, writing, and speaking skills.

### Honors English I - 1 Credit

This course is offered to students in who choose to begin the accelerated study of English. The course will concentrate on grammar and vocabulary skills by using writing techniques and assignments. Short stories, drama, novel, poetry, and non-fiction will be studied. This course is weighted at 1.08 percent of the grade achieved.

### English II - 1 Credit

Literature in the tenth grade will concentrate on a deeper study of types of drama, poetry, non-fiction, and short story. Oral composition through speeches and panel discussion will be emphasized. Written composition will be studied by writing short compositions utilizing various methods and types. Research techniques will be studied. Grammar and vocabulary will be coordinated with all units above and special emphasis will be placed where needed.

### Honors English II—1 Credit

This course is offered to college-minded sophomores who would like an accelerated study of English. Reading, writing, researching, and speaking skills will be emphasized. Students will read literary works in various genres. Literature will be analyzed for historical information, plot, theme, and style. Students will learn about, and from, various writers, and will apply this knowledge to writing assignments. Each student will produce a writing portfolio including examples of his/her best writing. This course is weighted at 1.08 percent of the grade achieved.

### English III - 1 Credit

This course is offered to juniors to help prepare them for college. This course is designed to familiarize students with the concepts and skills associated with English by developing oral and written skills. These skills will be developed through a study of American literature, composition, vocabulary and grammar. Research skills and the proper development of a research paper will be examined.

### Honors English III - 1 Credit

Honors English is offered to juniors who would like an accelerated study of English to help prepare them for college. English skills will be developed through a study of American literature, composition, vocabulary and grammar. Research skills and proper development of research papers will be developed in this course. This course is weighted at 1.08 percent of the grade achieved.

### English IV - 1 Credit

Academic English IV is offered to seniors to help prepare them for college. This course is designed to familiarize students with the concepts and skills associated with English by developing oral and written skills. These skills will be developed through a study of English literature, composition, vocabulary, and grammar. Research skills and the proper development of a research paper will be examined.

### Honors English IV - 1 Credit

Honors English IV is offered to seniors who would like an accelerated study of English to help prepare them for college. This course is designed for students who have an Honors English background. English skills will be developed through study of English literature, composition, vocabulary, and grammar. Research skills and proper development of research papers will be developed in this course. This course is weighted at 1.08 percent of the grade achieved. (\*This course may be considered for credit at Keystone College as part of our Dual Enrollment Agreement)

### English 12—1 Credit

English 12 is a standards based course offered to seniors as an alternative to Academic English IV. The content will include communication, language arts, and essential English skills. These skills will be developed through a study of English literature composition, vocabulary, and grammar. In addition, students will be required to complete two research papers. This requirement is incorporated to ensure that students develop knowledge and skills required to conduct research appropriately and to construct effective written communication.

### Theatre Arts - 1 Credit

This class is for students who are serious minded in their pursuit of the theater. There will be pantomimes, improvisations, and extemporaneous talks, discussions, along with dialogue for scenes and play performances, which will require memorization. All projects are taken seriously with careful, mature preparation in planning, organizing and rehearsing for class presentation.

### Creative Writing-1 Credit

Open to juniors, seniors and invited sophomores, Creative Writing I is an advanced English course that focuses on producing manuscripts in the fiction, nonfiction, poetry, and drama genres. Students will read masters of the craft, identifying and analyzing techniques that make the writing effective. After discussion, students will engage in writing exercises to practice these skills. Workshops will be conducted in class to learn how to critique their classmates' work as well as their own so that revision will improve their pieces. Each quarter, pupils will compile a portfolio of their best work for assessment. Students must have earned a minimum average of 85% in their previous year's English course. This class is designed for people who have a passion and talent for writing and seriously want to improve their work.

### Creative Writing II - 1 Credit

This honors course will be offered jointly with Creative Writing I and is open to students who have successfully completed that course over the previous year. In addition to the usual writing assignments, students in Creative Writing II will earn their honors credit by work on the on-line school newspaper or compiling a class literary journal of students' best work.

### Advanced Placement English - 1 Credit

This course is designed to develop the student's ability to read selected poems and passages analytically. Students will also write critical or analytical essays based on given critical statements, poems, and prose passages that are one of the following: narrative, exposition, or argument. A great deal of independent reading and writing is required. This course is designed to be the equivalent of the general English course usually taken during the first year of college. Students completing the course take the Advanced Placement Examination. Research skills and proper

development of research papers will be developed at the end of this course. This course is weighted at 1.14 percent of the grade achieved. \*This course may be considered for credit at Keystone College as part of our Dual Enrollment Agreement.

#### Graduation Project—Required for Graduation

In order to graduate from Lackawanna Trail High School, every student must satisfactorily complete a graduation project as required by Pennsylvania Department of Education regulations. The project will be a meaningful experience, which provides a student with the opportunity for in-depth learning about a self-selected topic. The project will be under the guidance and direction of the high school faculty/administration and will be assessed by an evaluation team. Students will be introduced to the project during their junior year and must complete it by the end of their senior year.

#### SAT Preparation—1/2 Credit

This course prepares students in test-taking strategies, pacing strategies and subject specific techniques for taking the SAT and the ACT. In this class, students will familiarize themselves with the SAT and ACT and learn strategies to maximize their scores. Students will gain in-depth information on each section of the SAT, as well as the overall test format. They will then apply this information to learn how the SAT “thinks” and to develop relevant strategies. Finally, students will gain readiness skills and longer-term preparation techniques to be utilized outside the classroom.

### **FAMILY AND CONSUMER SCIENCE**

#### Parenting and Family —1 Credit

This course involves practical applications of the family and consumer science field. Students will learn the basics of household management, child-rearing, and budgeting. Students will further understand how to develop a family budget and to manage the money in the household. Hands-on activities such as trips to local establishments will supplement instruction in the classroom. This class is open to junior and senior students.

#### Interior Design - 1 Credit

This course is designed to acquaint the student with the basic elements of design in order to create a home that reflects a personal sense of style. The aim of the course is to emphasize the importance of a home to a person’s physical and mental well being. It provides practical tips to ensure a pleasant and safe home while exploring design, economy, and organization within the confines of feasibility for home improvement projects. Topics will include: wall covering techniques, fabric selection, color palette and a comprehensive home design as a final project.

#### Food Science and Nutrition - 1 Credit

This course addresses the nutritional implications of dietary choices. It provides the student with a basis for making healthy decisions regarding diet and lifestyle. It examines the dietary requirements for optimum health and the consequences of the lack of proper nutrition. Balanced meal planning, shopping for food within a budget and healthy weight management are some of the topics explored, as well as nutrient requirements for age/weight, nutritional causes for physical ailments and comparison of food composition, i.e. fast food vs. home cooked food and actual vs. recommended food portions.

#### Consumer Science — 1/4 Credit

This course is designed to empower students to manage the challenges of living in a diverse, global society. The focus of this course is to address the functioning of families and their interrelationships with work, community and society. Attention is given to the reoccurring, practical problems of individuals and families. Comprehensive classroom experiences allow students to develop the knowledge and skills needed in making choices to meet their personal, family and work responsibilities.

## **FOREIGN LANGUAGE**

### **Spanish I - 1 Credit**

This course is devoted to developing basic habits and skills in language learning. Listening, speaking, reading, and writing are emphasized. The culture of the target language is interwoven in the dialogues, in the narratives and in the related vocabulary. The cultural emphasis at this point is to give students an understanding of the way in which the people of the Hispanic world live.

### **Spanish II - 1 Credit**

This course continues to develop the habits and skills in listening, speaking, reading and writing Spanish. The development of a better understanding and appreciation of Spanish speaking countries is achieved by utilizing closely related dialogues and narrative materials. The cultural emphasis, therefore, is to give students an understanding of and appreciation for, the customs of Hispanic people.

### **Honors Spanish III - 1 Credit**

This course continues developing habits and skills in the target language in greater depth and complexity. The cultural and appreciative aspects of the language are an integral part of the materials utilized. This course is weighted at 1.08 percent of the grade achieved.

### **Honors Spanish IV - 1 Credit**

This course continues to reinforce the development of proficiency in listening, speaking, understanding, and appreciation of Hispanic culture by studying its related literature. This course is weighted at 1.08 percent of the grade achieved. (\*This course may be considered for credit at Keystone College as part of our Dual Enrollment Agreement)

### **French I - 1 Credit**

This course begins the study of the French language. Emphasis is placed on listening, speaking, reading, and writing. Reading selections summarize grammatical constructions of each lesson and deal with various aspects of French geography and culture. Dialogue situations are emphasized in order to strengthen students' abilities to carry on conversations in the target language. Guided compositions are used to begin to develop good writing skills.

### **French II - 1 Credit**

This course continues to expand the four basic skills of language study. Vocabulary items become more varied, and a greater emphasis is placed on reading and writing. Grammar is studied in more depth, and is taught with an emphasis on oral and written forms. Reading selections are provided in the target language to further the student's knowledge of culture and history. Students continue to practice writing skills in the French language by means of guided compositions, dialogues, and some simplified free-style work.

### **Honors French III - 1 Credit**

This course uses real-life conversational situations, contemporary French literary works, and practical reading selections as the basis for vocabulary and grammar study. Listening, speaking, reading, and writing skills are emphasized in greater depth. Students progress from writing guided compositions to free form. Culture studies are concerned primarily with everyday life in French-speaking society. In addition, dialogue situations are introduced by means of which students may express themselves in style and content of today's culture. This course is weighted at 1.08 percent of the grade achieved.

### **Honors French IV - 1 Credit**

This course is a history/literary/cultural approach to the study of French civilization and culture. Students are introduced to the some of the high points of French history, as well as the culture of the French-speaking world. Independent reading of novels, plays, etc. is encouraged. Grammar, conversations, and composition offer students opportunities for expression in the target language. This course is weighted at 1.08 percent of the grade achieved.

## **HEALTH EDUCATION**

### **Health 9 —1/2 of Credit**

The course will take a wellness approach to several areas of health as it pertains to the student, both now and in the future. Responsible behaviors that impact the student, others, and the environment will be discussed. This course is designed to promote a healthy lifestyle and good decision-making as it pertains to this lifestyle. Topics covered in this curriculum are physical fitness, nutrition, weight loss and weight management, personal hygiene, alcohol, tobacco, drugs (both legal and illegal), and non-communicable diseases, human reproduction and sexuality (with an emphasis on responsible decision-making).

### **Health II - 1/2 of Credit**

Students will learn about the process used to achieve a healthy lifestyle, which will include the need for health promotion, protection and prevention of healthy and risk behaviors. Focus will be on responsible decision making which will lead to self-discipline and commitment on making total wellness a priority. Course content will include: self-responsibility for wellness, understanding the human body, human reproduction and sexuality (an emphasis on responsible decision-making and communication skills). A CPR unit will be incorporated into the course.

## **MATHEMATICS**

### **EAP Tutoring – Non-Credit – Non-Graded**

The EAP Tutoring program is designed to prepare high school students for the 11<sup>th</sup> Grade Mathematics PSSA Test. The major areas of concentration include the following: numbers and operations, measurement, geometry, algebraic concepts, and data analysis and probability. The tutoring material is aligned with the material that is being taught to the students in their mathematics classrooms. Students will be scheduled for tutoring based on PSSA and 4Sight test scores. Tutoring is also available by request for help with math classes.

### **SAT Preparation—1/2 Credit**

This course prepares students in test-taking strategies, pacing strategies and subject specific techniques for taking the SAT and the ACT. In this class, students will familiarize themselves with the SAT and ACT and learn strategies to maximize their scores. Students will gain in-depth information on each section of the SAT, as well as the overall test format. They will then apply this information to learn how the SAT “thinks” and to develop relevant strategies. Finally, students will gain readiness skills and longer-term preparation techniques to be utilized outside the classroom.

### **Math Essentials—1 Credit**

This course is for students who will be pursuing a post high school education. Students will be exposed to the mathematics of voting and apportionment, geometry as it applies to various real world applications, statistics, and consumer math topics such as credit card interest, bonds, stock, student loans, and home buying. Prerequisites for the class: Students must have at least a Math 3 background and be a senior. Familiarity with computers, Microsoft Word, and Microsoft Excel would be helpful.

### **Algebra/Geometry Concepts I — 1 Credit**

Prerequisite Math 8. This is the first in a three course series. The topics covered in the initial course include functions, linear equations/inequalities, graphing techniques, geometric constructions, and properties of two and three dimensional shapes, geometric transformations, and operations on real numbers, estimation, measures of central tendency, statistical graphs, and basic sampling techniques.

### **Algebra/Geometry Concepts 2 — 1 Credit**

This course will further develop the concepts covered in Math I, with an introduction to new topics which include solving systems of equations, inequalities, matrix operations, polynomial equations and functions, deductive/inductive proofs, linear regression, experimental design techniques, identifying and using varying distributions to describe populations.

### **Algebra/Geometry Concepts 3 — 1 Credit**

The final course in this series is intended to complete the development of the concepts introduced in Algebra/Geometry Concepts 1 and Algebra/Geometry Concepts 2.

### Algebra I - 1 Credit

Prerequisite - Pre-Algebra or Math 8. Algebra is the study of the properties and relations of symbols representing numbers. The student develops an understanding of algebraic structure so as to build a foundation of principles related to the real number system. Sets, the number line, operations with polynomials, linear and quadratic equations and roots are all covered.

### Honors Algebra 1 — 1 Credit

This course includes the study of sets, equations, inequalities, functions, number systems, polynomials, quadratic equations, factoring and rational expressions. This course is weighted at 1.08 percent of the grade achieved.

### Geometry - 1 Credit

Prerequisite - Algebra I. This course includes plane, solid, and coordinate geometry along with an introduction to trigonometry. Units of study include form and logical structure, geometric figures, logic and problem solving.

### Space Geometry/Honors Geometry - 1 Credit

Prerequisite - Algebra I. This course includes the study of plane, solid and coordinate geometry along with an introduction of trigonometry. Units of study include angles, triangles, polygons, inductive and deductive reasoning, standard theorems and proofs. This course is weighted at 1.08 percent of the grade achieved.

### Algebra II/Trigonometry - 1 Credit

Prerequisite - Geometry. This is a second course in Algebra for students with average and above average mathematical ability. It assumes an understanding of the set of real numbers and algebraic expressions in one variable. Main units of study are polynomial, rational, exponential, and logarithmic functions and their properties. Linear and quadratic functions are studied with particular emphasis on graphing in two dimensions. The course includes the fundamental concepts of matrices and determinants, sequences and series, permutations and combinations, probability and mathematical induction.

### Honors Algebra II/Trigonometry - 1 Credit

Prerequisite - Geometry. This course includes the study of the structures of mathematics, sets, number systems, linear and quadratic equations and inequalities. Other topics include systems of equations, rational expressions, functions, logarithms, complex numbers, and conic sections. This course is weighted at 1.08 percent of the grade achieved.

### Trigonometry/Pre-Calculus - 1 Credit

Prerequisite - Algebra II. This course is designed for academic students who will take higher level math courses in college. Main topics of study are the periodic nature of the circular function which relates angles with real numbers, relationships among circular functions, identities and trigonometric equations. Vectors are studied as ordered pairs of real numbers. Coordinate geometry of two dimensions, gives emphasis to the study of conic sections, is also covered.

### Honors Trigonometry/Pre-Calculus - 1 Credit

Prerequisite - Algebra II. This course is a study of trigonometry combined with an introduction to calculus. Topics from trigonometry include the trigonometric functions, graphs, identities, and the solution of triangles. Topics from calculus include functions, limits, differentiation, and the applications of derivatives. This course is weighted at 1.08 percent of the grade achieved.

### Honors Calculus — 1 Credit

This course is intended for students who wish to major in mathematics, engineering, science, or business administration. Included in the study are functions, limits, continuity, differentiation and integration, parametric equations and infinite series. This course is weighted at 1.08 percent of the grade achieved. \*This course may be considered for credit at Keystone College as part of our Dual Enrollment Agreement.

### Statistics - 1 Credit

Prerequisite - Algebra I and Geometry. The purpose of this course is to introduce students to the major concepts and tools for collecting, analyzing, and drawing conclusions from data. Students are exposed to four broad conceptual themes: exploring data, planning a study, anticipating patterns, and statistical inferences. Students who successfully complete the course are strongly encouraged to take the Advanced Placement Examination.



### Honors Statistics - 1 Credit

Honors Statistics is a course focused on four broad areas:

Exploring Data: Describing patterns. Sampling and Experimentation: Designing and conducting a study. Exploring Random Events: Using probability theory and simulation to study and anticipate patterns. Statistical Inference: Estimating population parameters leading to formulating and testing hypotheses. Prerequisite: Must meet or exceed honors requirement for Honors Algebra II/Trigonometry. Course will be offered based on enrollment. (\*This course may be considered for credit at Keystone College as part of our Dual Enrollment Agreement)

## MUSIC

**\*\*Concert Band – 1 Credit -** This is an elective course open to interested students with an intermediate to advanced background in the performance and study of instrumental music of the band genre. Students without said background may request entrance in the course and will be considered by Director of Bands on a case by case basis. This course will prepare the students to engage in and successfully execute a musically mature concert band program; the students will be trained in the art of small ensemble music and will be guided towards successful performance on their individual instrument as well as unified performance as an ensemble. This guidance will include individual playing tests, memorization, and - of course – individual practice. Numerous attendance commitments outside of the posted school hours are to be expected and will be integrated as a mandatory element of this course; this will include 5 performances per year, attendance at other musical events (i.e.: Lackawanna Trail Choral concerts and Elementary Center Band performance), and daily practice, in accordance with the Pennsylvania State Standards. In the event of extreme scheduling hardships or situations, alternate assignments may be presented to the student. These assignments will be designed to provide a similar educational experience and will be comprehensive and involved in nature. Pennsylvania State Standards will be presented and upheld throughout this course of study. Students will be assessed through alternative assessment techniques such as self-critiques and group ensemble evaluations. Scale tests, playing tests, and other more formal evaluations will also take place. Daily practice is to be considered homework.

### **\*\*Chrysalis (Women's Chorus) - 1 Credit**

This ensemble meets daily and is open to all young women in grades 9-12. Vocal ability, as well as a desire to develop sight reading proficiency, is an essential requirement for admission. The chorus will perform music in unison, two part, three part and four part as chosen from the guidelines of Music Educators National Conference and American Choral Directors Association. Students interested in participating in this group should be aware of the following requirements:

- This ensemble will perform publicly at least 3 times each academic year.
- Participation in each performance is mandatory and will be recorded as an exam grade.
- Failure to participate in a public performance will require a makeup exam. Exam requirements will be outlined in the course syllabus.
- Each student will be required to purchase a polo shirt to be worn for performances, field trips and other special events.
- Grades are based on daily participation in class, monthly vocal exams, all public performances, in class assessments, and occasional theory tests.
- The music rehearsed and performed will be of the highest level, be from all periods of music history and will require the student to commit to musical excellence. Practicing at home maybe required.
- Students will be required to attend concerts by other Lackawanna Trail ensembles, either at the high school or at the elementary center.
- Any student interested in becoming a member of this ensemble **must** see Ms. Rinehimer before registering with the guidance office.

### **\*\*Chor Leon (Men's Chorus) 1- Credit**

This ensemble meets daily and is open to any young man in grades 9 – 12. Anyone who enjoys singing is invited to participate in this ensemble. Vocal ability as well as a desire to develop sight reading proficiency is an essential requirement for admission. The chorus will perform music in unison and two part as chosen from the guidelines of Music Educators National Conference and American Choral Directors Association. Students interested in participating should be aware of the following requirements:

- This ensemble will perform in public. Public performance dates will be announced to the chorus 4 weeks prior to the event.
- Participation in each performance is mandatory and will be recorded as an exam grade.
- Failure to participate in a public performance will require a makeup exam. Exam requirements will be outlined in the course syllabus.
- Each student will be required to purchase a polo shirt to be worn for performance, field trips and other special events.

- Grades are based on daily participation in class, monthly vocal exams, all public performances, in class assessments, and occasional theory tests.
- Music rehearsed and performed will be of the highest caliber, be from all periods of music history and will require the student to commit to musical excellence. Practicing at home maybe required.
- Students will be required to attend concerts by other Lackawanna Trail ensembles, either at the high school or at the elementary center.
- Any student interested in becoming a member of this ensemble **must** see Ms. Rinehimer before registering with the guidance office.

**\*\*Madrigal - 1 Credit**

This ensemble meets daily. Membership is chosen by audition only. Vocal ability as well as a desire to develop sight reading ability is an essential requirement for admission. Once accepted in to this ensemble, students are required to attend all public performances and adjudications. The Madrigal Singers perform music on the highest caliber from all periods of music history. Repertoire includes pieces in English as well as foreign languages. Music chosen will develop vocal technique, sight reading ability, and expose young performers to styles and forms found historically. Repertoire will be SAB and as well as SATB music as recommended by Music Educators National Conference and American Choral Directors Association.

- This ensemble will perform publicly at least 3 times each academic year.
- Participation in each performance is mandatory and will be recorded as an exam grade.
- Failure to participate in a public performance will require a makeup exam. Exam requirements will be outlined in the course syllabus.
- Each student will be required to purchase a polo shirt to be worn for performances, field trips and other special events.
- Grades are based on daily participation in class, monthly vocal exams, all public performances, in class assessments, and occasional theory tests.
- The music rehearsed and performed will be of the highest level, be from all periods of music history and will require the student to commit to musical excellence. Practicing at home maybe required.
- Students will be required to attend concerts by other Lackawanna Trail ensembles, either at the high school or at the elementary center.

## **PHYSICAL EDUCATION**

### **Physical Education - 1/3 of Credit**

This course is designed to help students improve their skills in, and their knowledge of various athletics and lifetime sports activities. Knowledge of rules and physical techniques will be explored. Class activities will directly involve students in experiences related to various sports and personal fitness techniques with an emphasis on a wellness approach for lifetime health and fitness. This course is mandatory until 4 courses have been completed.

## **SCIENCE**

### **Physical Science - 1 Credit**

This course will introduce the chemical and physical aspects of matter. Upon learning basic properties of matter, students will apply their knowledge in laboratory experiments. Emphasis will be placed on logical and critical thinking skills. After completion of this class, students will be better prepared to make everyday decisions in life or continue their study of matter in chemistry or physics.

### **Honors Physical Science – 1 Credit**

This course will introduce students to foundations in Physics and Chemistry. Emphasis will be placed upon reasoning skills and critical thinking. Unit One explores methods in experimental research and design. In unit two students are introduced to Newton's Laws of Motion. Unit Three explains how atomic structure influences chemical properties including the formation of chemical bonds. Unit four introduces concepts relating energy to waves, light and sound. Student will design, conduct, interpret, and publish an Experimental Research Project. Student projects will be considered for presentation in the Junior Academy of Science. This course provides a gateway into upper level science courses.

### **General Biology — 1 Credit**

This course is designed to compare and contrast the differences and similarities found among living things. The course will cover structural, functional, chemical, genetic and evolutionary characteristics.

### **Biology I - 1 Credit**

This course is the study of life that will focus on the structural and functional similarities and differences found among living things. It will describe and explain the chemical and structural basis of living things, how genetic information is inherited and expressed. This course will cover the mechanisms of the Theory of Evolution.

### **Honors Biology - 1 Credit**

Similar description to biology. The material will be covered at a faster pace. The course will also look at current issues facing biological sciences. This course is weighted at 1.08 percent of the grade achieved.

### **Biology II - 1 Credit**

This course is a more advanced level of biology. It will take a deeper approach to the relationships between structure and function at all levels of organization, gene inheritance and expression at a molecular level, evolution and current issues in biological sciences.

### **Chemistry - 1 Credit**

Prerequisite – Algebra I and Geometry. This course in general chemistry is designed to meet the requirements of students intending to go on to college. The traditional topics of chemistry will be covered including atomic structure, periodic law, chemical bonding, chemical formulas and equations, stoichiometry, and phases of matter. Students will also use an inquiry/discovery approach in experimentation.

### **Honors Chemistry - 1 Credit**

Prerequisite – Algebra I and Geometry. This course in general chemistry is accelerated to meet the needs of the highly motivated academic student. The traditional topics of chemistry will be covered with an emphasis on mathematics and problem solving, using laboratory work for reinforcement of the topics. This course is weighted at 1.08 percent of the grade achieved. (\*This course may be considered for credit at Keystone College as part of our Dual Enrollment Agreement)

#### Honors Chemistry II — 1 Credit

Prerequisite – Honors Chemistry I. This general chemistry course is a continuation of Honors Chemistry I. Traditional chemistry topics will be covered with an emphasis on mathematics and problem solving, using laboratory work for reinforcement of the topics. This course is weighted at 1.08 percent of the grade achieved.

#### Physics - 1 Credit

Prerequisite – Algebra I, Geometry, and enrolled in Algebra II. The classical topics in physics will be covered with a strong emphasis on mathematical problem solving. These topics will include energy, vectors, velocity and acceleration, concurrent and parallel forces, motion and momentum, and fluid dynamics.

#### Honors Physics I - 1 Credit

Prerequisite – Algebra I, Geometry, and enrolled in Algebra II. This course is designed for the college-bound student who will need a background in classical physics. With supportive experimentation, much emphasis is placed on the mathematical approach in understanding the topics. Topics to be covered include energy, vectors, velocity and acceleration, concurrent and parallel forces, motion and momentum, and fluid dynamics. This course is weighted at 1.08 percent of the grade achieved. (\*This course may be considered for credit at Keystone College as part of our Dual Enrollment Agreement)

#### Honors Physics II—1 Credit

Prerequisite-Honors Physics I. This course is a continuation of Honors Physics I. Topics to be covered include thermodynamics, waves, optics, electrostatics, and electrodynamics. This course is weighted at 1.08 percent of the grade achieved.

#### Earth and Space Science—1 Credit

This course is designed to build on students' knowledge from previous science courses and apply that knowledge in understanding the complex systems of the Earth, the solar system, and the universe. Students will use research, technology, projects, and hands-on activities to explore topics ranging from the basic properties of energy and matter to the formation of the solar system. Special attention will be given to understanding the processes that continually shape the Earth and investigating the relationships between its many living and non-living systems.

#### Integrated Science - 1 Credit

Integrated Science is a course that will provide a hands-on approach to learning the many disciplines of science in a conceptual manner which ties the various disciplines together. The course will focus on Physics, Chemistry, Biology, and Earth and Space Sciences. Each quarter will be devoted to a single discipline, but will focus on the interrelationship of the disciplines. In addition, students will develop investigative skills to solve problems in each of the areas of science.

#### Honors Anatomy and Physiology - 1 Credit

Prerequisite - Biology and it is recommended to have a grade of 85 or better in a previous science class. Advanced Science is for senior students who have both "interest" and ability in the science area. Emphasis will be on a biochemical/anatomical approach to the biological sciences. This course is weighted at 1.08 percent of the grade achieved. \*This course may be considered for credit at Keystone College as part of our Dual Enrollment Agreement. (\*This course may be considered for credit at Keystone College as part of our Dual Enrollment Agreement)

### **SOCIAL STUDIES**

#### American History I — 1 Credit

This course examines the historical origins of the United States from the period of Discovery until the Civil War. Students will learn about the important political and economic factors that influence colonization and contributed to the American Revolution as well as the consequences of the Revolution, including the writing and key ideas of the U.S. Constitution and the frameworks of American democracy. This course will continue with the events that contributed to the political, economic, and social changes that existed in the U.S. in the 19th century concluding with the Civil War.

#### Honors American History I - 1 Credit

This course examines the historical origins of the United States in great depth and at an accelerated pace from the period of Discovery to the Civil War. Students will learn about the important political and economic factors that influenced colonization and contributed to the American Revolution as well as the consequences of the Revolution, including the writing and key ideas of the U.S. Constitution and the frameworks of American democracy. This course will continue with the events that contributed to the political, economic, and social changes that existed in the U.S. in the 19th century concluding with the Civil War. A variety of primary and secondary resources will be utilized to convey the events of U.S. History. Students are also expected to complete an analysis of two novels related to early American History. This course is weighted at 1.08 percent of grade achieved.

#### American History II - 1 Credit

This course provides special attention to the social, economic, and political aspects of American History. Much of the material presented is organized in a topical rather than a chronological manner, and the inquiry approach is used to a great extent. The course begins with an examination of the Civil War and Reconstruction and moves along at a brisk pace to America today. The course focuses a great deal of attention on America's rise as an industrial and world leader, and finishes up by looking at where America is headed in the 21st century. A combination of textbook reading, lectures, films, maps, and outside readings are used throughout the course.

#### Honors American History II - 1 Credit

This course is similar to American History II. Differences include a faster pace, the opportunity to study in greater depth topics of special interest and opportunities for students to do research and write a research paper as well as to debate a question of special interest to the student. This course is weighted at 1.08 percent of the grade achieved.

#### World History -1 Credit

This course covers the major events and achievements from the Renaissance and Reformation to the modern world. Emphasis is on the growth of European nations, exploration, the Enlightenment and revolution, the Industrial Revolution and the New Global Age, World Wars and revolutions and the world since 1945.

#### Honors World History - 1 Credit

This course will cover the major events and achievements from the Renaissance and the Reformation to the modern world. Emphasis is on the growth of the European nations, exploration, the Enlightenment, and the revolution, the Industrial Revolution and the New Global Age, World Wars and revolutions, and the world since 1945. This class will study specific events and individuals to greater depth using a variety of research techniques and various primary sources. This instruction will be done on a quicker pace than the general World History course. (\*This course may be considered for credit at Keystone College as part of our Dual Enrollment Agreement)

#### Law and Government - 1 Credit

We interact with different divisions of our federal, state, and local governments on an almost daily basis. Young adults should know how their government works, their roles as citizens in our country, and why they play such an important role in our government process, along with every other American citizen. This course teaches students how our democratic system of government operates, the role of the electoral process, and how the government impacts on their daily lives. Yet we must realize that ours is a law-based society. Citizens, especially young adults, want to know their rights and responsibilities under the law. This course also allows students to develop a better understanding of the American legal system and their rights and responsibilities under the law. Some of the other areas to be covered include criminal and juvenile justice, torts, and individual rights. This course is designed to allow students to develop their problem solving abilities, and uses newspapers and magazines to supplement the text to make discussions especially timely.

#### Psychology - 1 Credit

This course is designed to introduce the student to the various methods, principles, and theories of psychology as applied to the understanding of human thought, emotions, and behavior. Topics discussed include research methods, physiological foundations of behavior, growth and development, personality, stress and adjustment, social interaction, and psychological disorders and treatment.

### Honors Psychology

This course is designed to introduce the student to the various methods, principals, and theories of psychology as applied to the understanding of human thought , emotions, and behavior. Topics discussed include research methods, physiological foundations of behavior, growth and development., personality, stress and adjustment, social interaction, and psychological disorders and treatment. There is an independent component of this course and students are expected to research and meet various deadlines for assignments. Many primary sources and professional readings will be utilized to present the theories of psychology. This course will be weighted at 1.08 percent of grade achieved. (\*This course may be considered for credit at Keystone College as part of our Dual Enrollment Agreement)

### Advanced Placement U.S. History - 1 Credit (Offered 2010-2011)

This course has been developed to prepare students for the College Boards Advanced Placement Test in American History. Students will utilize primary source materials in order to develop understandings of how individuals have altered the course of American History. Students will develop understandings of not only what happened, but how and why it happened, and how it impacted (both positively and negatively) on future events in our nation's history. As the Advanced Placement exam relies heavily on student performance on essay questions, students will be expected to develop their essay writing skills throughout the year, always pointing toward the Advanced Placement test, which can earn students college credits. This course includes a summer assignment, which includes two book reviews that are to be completed for the beginning of the school year. This course is weighted at 1.14 percent of the grade achieved. \*This course may be considered for credit at Keystone College as part of our Dual Enrollment Agreement.

### Advanced Placement U. S. Government - 1 Credit Offered (2011-2012)

This course has been developed to prepare students for the College Board's Advanced Placement Test in Government and Politics. Students will utilize primary source materials as well as texts in order to develop understandings of a variety of political and governmental systems, and students will understand the arguments that both support and critique each of these systems. More importantly, students will understand the basic writings that form the foundation of our own governmental system, and will understand how these writings have impacted upon our governmental system today. As the Advanced Placement Test relies heavily on student performance on essay questions, students will be expected to further develop their essay writing skills throughout the year, always pointing towards the Advanced Placement test, which can earn students college credits. This course is weighted at 1.14 percent of the grade achieved. \*This course may be considered for credit at Keystone College as part of our Dual Enrollment Agreement.

### AP World History– 1 Credit Offered (2011-2012)

The purpose of the AP World History course is to develop greater understanding of the evolution of global processes and contacts in different types of human societies. This understanding is advanced through a combination of factual knowledge and analytical skills. The course highlights the nature of changes in international frameworks and their causes and consequences, as well as comparisons among major societies. The course emphasized relevant factual knowledge considered in conjunction with leading interpretive issues and types of historical evidence. The AP World History course offers motivated students the opportunity to immerse themselves in the processes that, over time, have resulted in the knitting of the world into a tightly integrated whole. AP World History guides students through the steps a historian would take in analyzing historical events and evidence worldwide. The course offers balance global coverage with Africa, the Americas, Asia, and Europe all being represented. This course is weighted at 1.14 percent of the grade achieved.

## TECHNOLOGY

### Woodworking—1 Credit

This course is designed to introduce students to elementary cabinet construction and the use of power and woodworking equipment. Emphasis will be on design, planning, construction, and work performance. Students will build a group project and select at least one individual project. This course will be useful to any student interested in increasing his/her whole life skills and their background regarding technology.

### Woodworking II and III - 1 Credit

This course is designed for students who are interested in gaining more experience in the use of woodworking equipment and cabinet construction. The purpose of this course is to direct students towards the completion of more complex wood projects. Students are encouraged to use advanced joinery and craftsmanship during the fabrication and assembly of their group manufacturing project. The Woodworking III section of this course encourages further development of skills and abilities to solve woodworking problems. Students at this level will be allowed independent study and pursuit of special interests in woodworking.

### Graphic Communications I - 1 Credit

This course is designed to introduce students to the various techniques and materials used in printing, commercial art, graphic communication, and basic video editing. The main areas to be included in the course will be: desktop publishing, silk screen printing, offset printing, illustration, and basic video editing. In each of these areas – artwork, image assembly, image carrier preparation, image transfer, and finishing procedures will be covered. Students interested in art, commercial art, communications, business, media printing and graphic design, need this course in his/ her background.

### Graphics II — 1 Credit

Students who choose this course will be able to further their knowledge in the Graphic Communication field. Advanced offset printing, screen printing, advertising, and video editing will be addressed. Students taking this course should show an interest in pursuing a career in the Graphic Communication field.

### Electronics I - 1 Credit

Prerequisite - Pre-Algebra. This survey course of electricity and electronics is designed to acquaint the student with many basic electrical — electronic principles and systems. Students design, produce, and evaluate individual/group electronic projects. Included in this course are the practical applications of electrical — electron theory, interactive computer controlled test — lab equipment, troubleshooting, schematic reading and building a variety of electronic projects.

### Electronics II - 1 Credit

This survey course of AC electronic devices is designed to acquaint the student with many basics principles involved with alternating current. This course allows students to design, produce, and evaluate individual/group electronic projects. Included in this course are the practical applications of power transformers, interactive computer controlled test — lab equipment, troubleshooting, schematic reading and building a variety of electronic projects.

### Computer Aided Drafting I (CAD I) - 1 Credit

This course will provide an introduction to the use of AutoCAD 2007 software for Computer Aided Drafting. Projects will include the completion of several Orthographic Projection (3 view) and several Isometric Drawings (3D) in two-dimensional form, plus application of dimensioning techniques, and an introduction to AutoCAD's three-dimensional capabilities. Included in this course will be a study of the proper use of the IBM compatible workstation and network components as related to CAD. Students will be assessed through evaluation of computer skills, software knowledge and application, individual drawings and tests.

### Computer Aided Drafting II (CAD 11)-1 Credit

CAD II is a course which explains the use of AutoCAD 2004 variables providing advanced instruction in drafting principles and software application. Class activities may include auxiliary views, production drawings and 3-D designs. Emphasis will be placed on the mastery of AutoCAD's three-dimensional capabilities in the creation of solid objects and the application of rendering materials and lights. Students will be assessed through evaluation of computer skills, software

knowledge and application, individual drawings and tests.

Architectural Computer Aided Drafting - 1 Credit

Required — CAD I: This course is designed to teach the methodology of constructing architectural drawings using AutoCAD 2007's Architectural Desktop software and to further the student's computer aided drafting skills. The major components of the course will include Floor Plans, Building and Wall Sections, Elevations and Perspectives in standard 2-D and 3-D formats. Assessment will be achieved through evaluation of software knowledge and application, completed drawings and testing.

**VOCATIONAL-TECHNICAL OPTION**

Lackawanna Trail students are eligible to apply for the vocational- technical program given at the Susquehanna County Vocational Technical School and/or Lackawanna County Vocational Technical Center beginning in the tenth grade. Students must apply and be admitted by the Vo-Tech Board. The students attend the Vo-Tech for half of the day and take their required courses at Lackawanna Trail during the other half-day. Students must maintain favorable academic, disciplinary, and attendance requirements to continue enrollment at Vo-Tech. It is still mandatory that required courses be scheduled and passed at the home school in order to obtain a high school diploma. It is important to make certain that you are able to schedule these required subjects along with your Vo-Tech studies. Students and parents considering this option should consult with a guidance counselor to obtain individual programs of study at each Vocational Technical Center.

**Career Technology Center of Lackawanna County**

Automotive Technology  
Building Maintenance Technology  
Carpentry  
Collision Repair Technology  
Commercial Art and Design  
Business Information Technology  
Computer Maintenance Technology  
Cosmetology  
Culinary Arts  
Drafting and Design Technology  
Early Childhood Care and Development  
Electronics  
Electrical Construction and Maintenance  
Graphic and Printing Communications Technology  
Health Occupations Technology  
Horticulture and Landscaping  
Industrial Machine Technology  
Plumbing and Heating Technology  
Protective Services Occupation  
Trowel Trades  
Welding Technology

**Susquehanna County Vocational Technical Center**

Automotive Technology  
Building Trades I (Carpentry and Cabinetmaking)  
Building trades II (Electrical/Plumbing/Heating)  
Business Education/Data Processing  
Cosmetology  
Food Management, Production and Services  
Health Care Technology