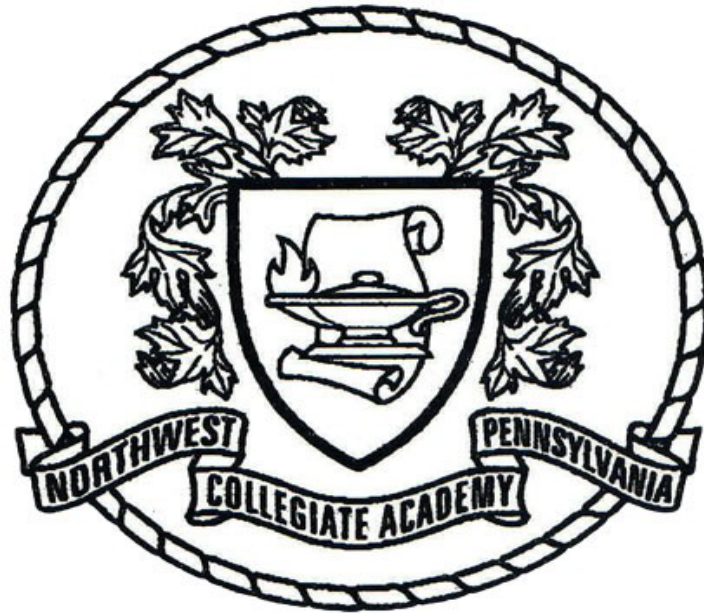


Northwest Pennsylvania
Collegiate Academy



COURSE SELECTION GUIDE
2014-2015

“Always Reaching Higher”

Northwest Pennsylvania Collegiate Academy

Graduation Requirements

A minimum of 29.0 credits (grades 9-12) is required for graduation from Collegiate Academy. These credits shall include:

Language Arts	4.0 credits
Mathematics	4.0 credits
Science	4.0 credits
Social Studies	4.0 credits
Wellness & Fitness	1.5 credits
World Language	3.0 credits
Research	0.5 credits
Digital Literacy	0.5 credits
Electives	7.5 credits

TOTAL CREDITS

29.0 credits

Board Approved Graduation Requirements for 2014-2015

All Collegiate Academy students are required to take a minimum of three (3) Advanced Placement or Dual Enrollment courses prior to graduating.

When a student doubles up on classes in a core subject area, he or she is not permitted to take a year off. For example, if a student doubles up in science after her sophomore year she must schedule a science class in both her junior and senior year.

All Collegiate Academy graduates will apply to a four-year college or university of their choosing during their senior year.

Students planning on attempting to graduate early must meet all above graduation requirements. Students choosing this option must schedule a meeting with a guidance counselor at the end of the 10th grade year to develop an early graduation plan.

All students must score proficient or advanced on the Algebra, Biology, and Literature Keystone Exams.

What is the *Advanced Placement Program?

College Board administers thirty five *Advanced Placement (AP) courses and exams across twenty subject areas. Collegiate Academy offers more than twenty AP courses to students. The only requirements are a strong curiosity about the subject of the course and the willingness to work hard. During the course of a four year high school career at Collegiate Academy, students are expected to take three Advanced Placement Courses. Through AP exams, students have the opportunity to earn credit or advanced standing at most of the nation's colleges and universities.

College Board lists these advantages of taking AP courses:

- Provide a head start on college-level work.
- Improve writing skills and sharpen problem-solving techniques.
- Develop the study habits necessary for tackling rigorous course work.
- Demonstrate maturity and readiness for college.
- Shows willingness of student to push to the limit.
- Emphasize commitment to academic excellence.
- Explore the world from a variety of perspectives, most importantly the student's.
- Study subjects in greater depth and detail.
- Assume the responsibility of reasoning, analyzing, and understanding.
- Recent research shows that the single most important indicator of a student's potential for success in college is the rigor of his/her high school coursework.

AP Exams are a significant part of the AP Program and students are expected to take the exam. Courses are taught by AP trained, dedicated teachers who lay the groundwork for student success on the exams.

We recognize the additional rigor of Advanced Placement courses by allowing students taking Advanced Placement courses to schedule a one semester academic enhancement for each Advanced Placement course; no more than one academic enhancement per semester may be scheduled.

For answers to frequently asked questions regarding the Advanced Placement Program, please visit <http://www.collegeboard.com/student/testing/ap/about.html>.

**Advanced Placement Program is a registered trademark of the College Board.*

High School Dual Enrollment

Collegiate Academy has a partnership with local colleges whereby junior and senior students have the opportunity to take college courses for high school credit in core subject areas. The college courses, whether taken for required or elective high school credit, are weighted as an Advanced Placement course and will be factored into the student's GPA. College courses and grades appear on the student's report card/transcript along with the grades earned in Collegiate Academy courses. Many students have benefited from this program; however, it does require initiative and self-discipline on the student's part to maintain good grades in both areas.

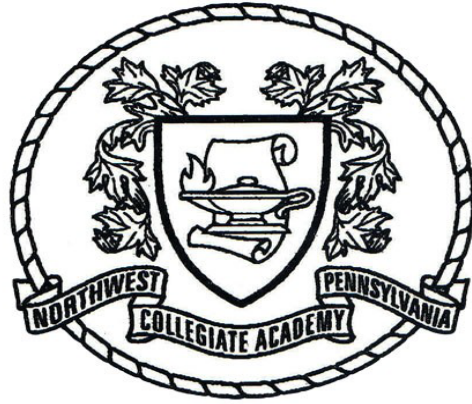
These college courses are offered as an enhancement to the Collegiate Academy course offerings and are totally optional. The colleges offer them at a greatly reduced tuition and each school has a different cost per credit. Students must purchase their own books and provide their own transportation. While every effort is made to schedule Collegiate Academy classes around the college courses, students assume responsibility for making up Collegiate Academy course work missed while attending college classes. Students can also take summer and evening college courses for dual enrollment credit. Rigorous high school course work, including dual enrollment courses and Advanced Placement courses, enhance a student's chances of admission at highly select colleges as well as prepare them for college level rigor.

Please note that every college has its own policy on accepting the college credit earned through this dual enrollment program. Some colleges will only accept college credit that was not counted as high school credit; some colleges may not accept a course that is a required course in the student's intended major. Students can check the credit transfer policy of most colleges at <http://collegesearch.collegeboard.com/apcreditpolicy/index.jsp> or on the individual college website.

High school dual enrollment is an excellent way for juniors and seniors to earn college credit at a reduced rate while completing the required credit for high school graduation. Students have enriched their knowledge in certain subject areas in anticipation of a rigorous choice of major and/or have pursued courses of interest simply to expand their own knowledge. Any student scheduling a college course as a required high school course in language arts, math, science, social studies, and/or world language must do so in the fall semester to ensure availability and avoid credit shortages which would endanger graduation. Students must also register for dual enrollment courses in advance and go through the Collegiate Academy guidance department in advance of the course start date. A student may not schedule dual enrollment courses in the middle of a Collegiate Academy semester if the student is failing or doing poorly in a current Collegiate Academy course. These courses are meant for enrichment of Collegiate Academy curriculum. All dual enrollment courses must be approved by Collegiate Academy administration or the guidance department.

Academic Enhancement Policy

Academic Enhancement is a class that offers students the opportunity to utilize a portion of the school day to work on projects, homework or studying for exams. By building academic enhancement periods into a student schedule, the amount of instructional time and the total number of credits a student will have upon graduation are reduced. For these reasons, it is vital that students choose whether to take an academic enhancement with great discretion. In addition, students taking academic enhancement are expected to be working throughout the period. This time is not to be used as downtime, time to rest, or free time. To encourage the proper utilization of academic enhancement, and for the reasons above, students will be limited to **1 academic enhancement for every 2 AP classes with a maximum of 2 academic enhancements in a school year**. Dual enrollment students may schedule academic enhancements at the same time as a college class in order to facilitate travel and missing Collegiate courses. These academic enhancements will be scheduled with a counselor at the start of each semester.



**ACADEMIC SPORTS
LEAGUE/ SAT PREP**

ACADEMIC SPORTS LEAGUE

SAT PREP
Grades: 11, 12

#5512
(.5 Credit)

**INTRODUCTION TO
ACADEMIC SPORTS LEAGUE**
Grade: 9

#6096
(.5 Credit)

Course Description: This course introduces students to the Academic Sports League (ASL). The course emphasizes skills that will prepare students for success in the full-year ASL class taken as sophomores, juniors, and seniors. These skills also prepare them for success at competitions.

Subjects covered include:

- General knowledge of Music fundamentals
- General knowledge of Art fundamentals
- General knowledge of Language and Literature fundamentals
- General knowledge of Economics; micro and macro fundamentals

ACADEMIC SPORTS LEAGUE
Grades: 10, 11, 12

#6094
(1Credit)

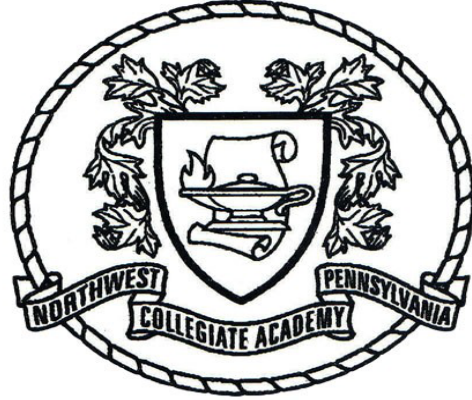
Prerequisite: A love of reading and competition

Course Description: This course prepares students for competition at the local level through Academic Sports League and at the regional and state level through the United States Academic Decathlon (USAD). The course is a compilation of ten areas important to college-bound high school students: Language and Literature, Mathematics, Science, Social Studies, Economics, Art, Music, Speech – prepared and impromptu, Interview, and Essay.

Students are divided into 3 levels – Honors, QPA 3.75 and above, Scholastic, 3.0 to 3.74, and Varsity, below 3.0. In this way they are competing with students closer to their ability.

Although the same ten areas are studied every year, the specific material within the ten subjects will vary. The science may be biology, chemistry, or physics; the social studies may be a specific time period or a specific geographical area; the language and literature and may include any classic novel, play, or poetry; the fine arts areas will consist of specific periods or genres.

Course Description: The SAT Prep course is designed to prepare students for the SAT. Through practice exercises and quizzes, the students develop strategies and skills needed to achieve success on the verbal and writing sections of the test, focusing on sentence completions, reading comprehension, standard written English usage, and impromptu essay development. Students will take ownership of their own progress as this course focuses on individual student growth. All work will be student-centered, with significant peer interaction and individual reflection. Student progress will be monitored via a baseline test, frequent checks, and comparison to PSAT results.



ART

ART

ART I #6902
Grades: 9, 10, 11, 12 (.5 Credit)

Prerequisite: None

Course Description: Art I is open to all students regardless of their previous art experience. Students will have the opportunity to develop skills by using a variety of drawing and painting mediums. They will be given instruction in shading, figure drawing, perspective and painting techniques. This class will present the elements and principles of design as well as color theory.

ART II #6904
Grades: 10, 11, 12 (.5 Credit)

Prerequisites: Art I

Course Description: Take the next step to elevate your art skills. Art II will afford the serious art student the opportunity to improve his or her artistic ability through a variety of two dimensional experiences. The focus will be on working with pencil, conte crayon, charcoal and pastels in a range of drawing assignments. Members of this class will create a self portrait, still life and landscape in acrylics and complete weekly assignments which will be critiqued by members of the class.

ART III #6906
Grades: 10, 11, 12 (.5 Credit)

Prerequisites: Art I and Art II

Course Description: It's time to show off creativity. Armed with the fundamentals of Art I and Art II, this is students' chance to produce artwork which reflects personal style and inner expression. As a member of this class, students will be given assignments that offer a greater freedom to personalize artwork and showcase creativity. Students will work in drawing and painting mediums to produce art that is unique. Students are expected to complete a weekly assignment and sketchbook.

INTRODUCTION TO CERAMICS #6912
Grades: 9, 10, 11, 12 (.5 Credit)

Prerequisites: None

Course Description: Introduction to Ceramics is an exciting adventure that will introduce students to ceramic clay and the ceramic process. Students will discover the properties of clay; learn about the history of its uses as both functional and decorative art forms. Students will experience clay preparation techniques, explore slab, coil and pinch pot construction through assigned projects. Students will design, decorate and glaze their own pottery.

CERAMICS II #6914
Grades: 10, 11, 12 (.5 Credit)

Prerequisites: Intro To Ceramics

Course Description: Ceramics II continues the creative clay adventure and builds on their prior experiences while broadening their knowledge and improving their skills in ceramics. Students will construct a variety of projects that include clay modeling, 3-dimensional slab construction and low relief sculpture. A variety of different glazes and surface treatments will be used. Artists will assist in the preparation, loading and unloading of the kiln.

ADVANCED CERAMICS #6916
Grades: 11, 12 (.5 Credit)

Prerequisites: Intro To Ceramics, Ceramics II,

Course Description: Advanced Ceramics is a course designed for the serious ceramics students that are dedicated to furthering their knowledge, skills and creative endeavors in clay. All projects will be built on the foundations of ceramics II. Students will gain knowledge and skill at a higher level, using hand building and the potter's wheel. They will be actively involved in the individual design of each proposed project. Students will need to spend additional time working after school due to the complex nature of the projects. Students will demonstrate an understanding of ceramic vocabulary, pug clay and assist in loading and unloading the kiln. They will incorporate art history themes in their work and decorate projects using a variety of methods. Focus on quality construction will be a top priority. Over and under glazes will be used and students will be required to maintain a notebook with sketches and design proposals. Students will be responsible for fees or cost required to complete final projects.

CERAMICS STUDIO #6918
Grades: 11, 12 (.5 Credit)

Prerequisites: Ceramics I, II and Advanced Ceramics

Course Description: Ceramics Studio is a course designed to expand upon the skills and ideas gained in all previous ceramics courses. Students will explore a variety of ceramic techniques including refining your hand building skills and advanced wheel throwing skills dealing with more complex and conceptual forms. Also, you will be challenged to use your ceramic knowledge and skills to create your own projects and to study the work of practicing ceramic artists. Every effort will be made to accomplish the goals and objectives in a timely and efficient manner that will allow the student the optimum opportunity to excel in their work.

ANIMATION
Grades: 10, 11, 12

#6946
(.5 Credit)

Prerequisites: None

This class will introduce the student to the history and development of cartooning. The student will create cartoon characters, set them into a sequence of time frames and eventually animate them with the aide of computer software. They will work also with clay animation using stop motion animation.

sections: A quality section made up of five matted works of art; a breath section made up of twelve compositions showing diversity in a variety of mediums; and the third section: a series of twelve compositions documenting an exploration by the student into a specific area of concentration designed by the student. Members of this class will be exposed to demonstrations and videos aimed at presenting a variety of approaches and techniques in drawing and painting.

ART AND DESIGN
Grades: 9, 10, 11, 12

#6926
(.5 Credit)

Prerequisites: None

Course Description The Art and Design course is open to all students. This course is designed to develop skills in layout, design, and illustration. Students will use traditional fine arts mediums as well as computer and photo editing software to create art work. Through a series of products, students will be asked to create posters that graphically test their ability to blend text with imagery that is visually pleasing, marketable and balanced.

ADVANCED PLACEMENT ART HISTORY
Grades: 11, 12

#6932
(1 Credit)

Prerequisites: None

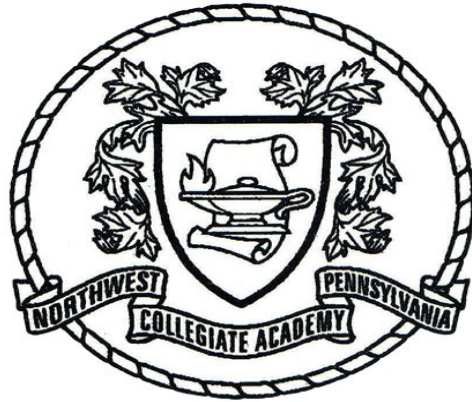
Course Description: Take a trip from the prehistoric caves of Altamira to present studios of contemporary artists. This class is an introduction to Western Art and Architecture with attention to non-European cultures. This progressive course introduces students to artists, schools and movements, chronological periods and specific dates, and the subjects, styles, and techniques of particular works of art. Students will explore varying context of ideas and social/ historical situations in which works of art have been created. Students will gain an appreciation of art from various times and cultures and they will learn about the materials and processes in the creation of art and architecture from class lectures, readings of the text, video and slide presentations. Each student will be required to give a detailed presentation of an artist, period or style of art or a specific work of art.

ADVANCED PLACEMENT STUDIO ART
Grades: 11, 12

#6934
(1 Credit)

Prerequisites: Art I and Art II

Course Description: This course is designed for the highly motivated art student committed to producing a quantity of quality, two-dimensional artwork. The student artist is required to create a portfolio of artwork over the course of the school year. Each portfolio will be compromised of three



COMPUTER TECHNOLOGY

COMPUTER TECHNOLOGY

DIGITAL LITERACY (*required elective*) #6802

Grade: 9 (.5 Credit)

Course Description: The Digital Literacy Curriculum was developed to create awareness around the issue of creative content and to foster a better understanding of the rights connected with it. Ultimately, its goals are to instill in students an appreciation of the value that creative content has for the creator, and to establish a personal respect for creative rights in a way that changes their behaviors and perceptions about digitally delivered content. In addition this course assumes students are familiar with the fundamentals of Microsoft WORD, EXCEL, and POWERPOINT and offers a project based curriculum that further acquaints students with proper procedures to create and enhance documents, spreadsheets, and presentation skills.

ADVANCED COMPUTER APPLICATIONS #6840
Grades: 9, 10, 11, 12 (.5 Credit)

Prerequisite: Digital Literacy

Course Description: This course will elevate students' Microsoft Office skills to the expert level. By successfully completing the class projects and simulations, students will acquire expert skills and be able to meet the challenge of the MOUS (Microsoft Office User Specialist) exam if they so choose. This exam is the computer industry's universally accepted barometer that measures an individual's computer skill. Office Specialist Certification sets students apart in today's competitive job market, bringing employment opportunities, greater earning potential and career advancement, in addition to increased job satisfaction. This is a wonderful certificate for students' resume that traditionally isn't achieved until post-secondary education.

INTRO TO PROGRAMMING #6820
Grades: 11, 12 (.5 Credit)

Prerequisites: Digital Literacy, Advanced Computer Applications

Course Description: Advanced computer students will learn basic coding using the two most popular and current languages. They will develop structured coding methods, debugging skills, and logic for efficient problem solving.

COMPUTER AIDED DESIGN # 6818
Grades: 10, 11, 12 (.5 Credit)

Prerequisites: none

Course Description: Using the latest software for 3D engineering design, students explore unique design advantages. Students use Autodesk Inventor, a parametric solid modeling design software package. Hands on experiences allow the student to explore the exciting field of Computer Aided Engineering. Basic drawing principles to full assembly are created on the desktop. Inventor is used extensively by the robotics team members to design our Robot.

WEBPAGE DESIGN #6824
Grades: 10, 11, 12 (.5 Credit)

Prerequisites: Digital Literacy, Advanced Computer Applications, and some digital imaging experience

Course Description: Students enrolled in this course will learn about the tools and techniques used by web publishers. They will become familiar with Internet protocol used for HTML and web page editors/browsers. Students will also have the opportunity to work with popular web publishing software: Adobe Dreamweaver & Adobe Flash.

PHOTOGRAPHY/DIGITAL IM #6812
Grades: 10, 11, 12 (.5 Credit)

Prerequisites: Digital Literacy, Advanced Computer Apps

Course Description: Using advanced digital editing software students learn the power of Photoshop to create works of art. This is an in-depth study of photography and current technologies. Students learn how to use digital cameras, scanners, color inkjet printers and our large poster printer. Camera selection, creative composition image manipulation and enhancement are studied. Students can also use the school's professional studio lighting system for experimentation. The use of photography for web page design and other graphic design experiences are provided.

ADVANCED PLACEMENT COMPUTER SCIENCE #6836
Grades: 11, 12 (1 Credit)

Prerequisites: Intro to Programming

Course Description: Build upon the knowledge acquired in Introduction to Programming. Students will learn enhanced structuring techniques/ methodologies, advanced data structures, and further problem definitions. Students will also further refine their program design, and debugging skills.

MEDIA PRODUCTION
Grades: 11, 12

#1860
(1 Credit)

Prerequisites: Digital Literacy, Photo/Digital Imaging, Broadcast Journalism

Course Description: This technology-based course will acquaint students with the tools of media production, basic concepts of production and increase awareness of media technology. Students will learn the fundamentals and techniques involved in the design and production of visual messages. Participants will be required to produce various print, video, and mixed-media projects that will be used to promote the mission and vision of Collegiate Academy.

3D MODELING
Grades: 11, 12

#6832
(.5 credit)

Prerequisites: Computer Aided Design

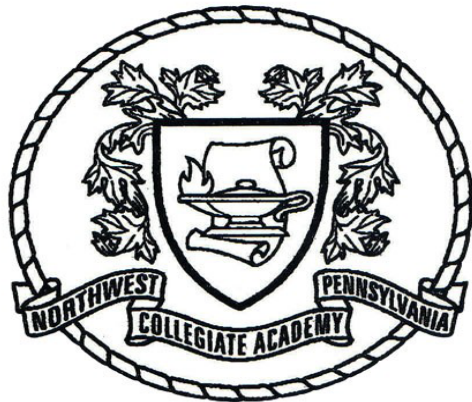
Students are introduced to **3D Studio Max**, one of the best 3D design and animation programs in the world. This program is used by architects for presentations and the entertainment industry to create feature films such as X-Men 3 and The Incredibles. Students start by building simple 3D shapes and later develop full animated movie clips. 3D max is used by our robotics team to create several animations as part of our yearly competition.

DESKTOP PUBLISHING
Grades: 9, 10, 11, 12

#6816
(.5 Credit)

Prerequisites: None

Course Description: This class is designed for students interested in publication design or those who desire to be a future member of the yearbook or news magazine staff. In this semester course, students are introduced to the concepts of design and the basic elements of desktop publishing using Adobe In-Design. Students will then construct an individual newsletter, create a title page spread for a magazine article, produce a magazine ad, generate a brochure, and design newspaper and yearbook pages.



LANGUAGE ARTS

Language Arts Course Sequences



LANGUAGE ARTS

LANGUAGE ARTS 9

Grade: 9

#1408
(1 Credit)

Prerequisites: Required summer reading, all students are required to purchase their own copy of *A Pocket Style Manual 6th Edition* by Diana Hacker.

Course Description: This Language Arts curriculum is aligned with the Common Core State Standards and introduces the development of college level writing skills with a focus on literary response and practice in argumentative and informative modes of writing. Students embark on an exciting and adventurous literary journey, including various short stories, poems, informative essays, Shakespearean and Greek tragedies, and novels. Some of the specific titles covered are *The Tragedy of Romeo and Juliet*, *Antigone*, *The Scarlet Letter*, and *Of Mice and Men*. Language Arts 9 begins the development of the strong analytical skills necessary for success in later Language Arts and other AP classes. Students will analyze fiction and non-fiction and will be exposed to AP style objective testing and essay writing. Concentration on PSAT, SAT, and Keystone Exam skills will also be a major focus of the course, including but not limited to, the development of vocabulary and critical reading skills.

LANGUAGE ARTS 10

Grade: 10

#1508
(1 Credit)

Prerequisites: Students enrolled in this course are required to complete two summer readings to be determined.

Course Description: Beginning with an examination of two failed utopias, this course continues to engage students in an exploration of humans' desire for a perfect world. We consider what is important in an ideal society and discuss the issues that complicate our world. By reading and responding to novels, short stories, poetry, essays, and drama, students continue to develop their appreciation of literature, critical thinking, and writing skills. They also expand their ability to respond meaningfully to literature through interpretation and analysis. Students write in a variety of modes including narrative, expository, and argumentative. Students also study college-level vocabulary and develop PSAT, SAT, and Keystone Exam skills. Successful completion of every step of a research paper in MLA style is required to pass this class.

LANGUAGE ARTS 11

Grade: 11

#1608
(1 Credit)

Prerequisites: Language Arts 9 and 10. Students enrolled in this course are required to complete two summer readings to be determined.

Course Description: In this survey of American literature, students journey across Midwest America with the Joads in *The Grapes of Wrath* and drift down the Mississippi with Huck and Jim in *The Adventures of Huckleberry Finn*, exploring the American Dream and the true meaning of friendship and family. Students evaluate courage as they stand beside John Proctor in *The Crucible* when he goes on trial for witchcraft and reflect on alienation as the women in *Yellow Raft in Blue Water* try to navigate within their family and between the Indian reservation and contemporary American society. Students will meet other writers through various short stories, poetry, essays, and plays. Language Arts 11 is intended to engage students in college-level thinking, discussions, writing, and research. Students will develop analytical skills, evaluate literary criticism, and further their understanding of literary devices in order to respond critically to the literature they read. Additionally, students hone their vocabulary and other skills needed for PSAT, SAT, and Keystone Exam tests. Successful completion of this course requires writing a fully documented research paper on a selected literary work.

CLASSIC LITERATURE OF THE WESTERN WORLD #1720

Grade: 12

(1 Credit)

Prerequisites: Successful completion of AP Language and AP Literature. Students enrolled in this course are required to complete two summer readings to be determined.

Course Description: This honors level course is designed for juniors and seniors who have completed both AP Language and AP Literature, although some students may be currently enrolled in AP Literature. Students will explore the foundations of Western thought and literature, which encompasses important works from 2500 B.C. through the present. Historical context and cultural traditions will also serve as guides for study. Students will complete a fully documented research paper that examines the critical literary elements or historical importance of chosen selections.

ADVANCED PLACEMENT LANGUAGE AND COMPOSITION #1610
Grade: 10, 11 (1 Credit)

Prerequisites: Exemplary completion of Language Arts 9 or 10. Students should also be committed to the careful reading and critical analysis of fiction and non-fiction. Required summer reading will be posted on the school website and teacher's website in May. (Please refer to the Advanced Placement page of the course book.) Excellent summer work must be completed with due date's mid-summer and on the first day of class.

Course Description: This course has two equally important goals. First it will prepare students to succeed on the Advanced Placement Language and Composition test, which is administered in May. Second, it will offer students the chance to work at a college level, providing excellent preparation for the challenges and demands they will meet in college. The class focuses on the rhetoric of non-fiction of literary merit. Students work to develop as writers by integrating into their own writing the rhetorical skills they study in the writing of master authors. Students also read a number of classic American novels and aggressively study advanced vocabulary that will contribute to their success on the AP, SAT, and ACT tests. A fully documented research paper that meets all required criteria is required for successful completion of this class.

LANGUAGE ARTS 12 #1708
Grade: 12 (1 Credit)

Prerequisites: Students enrolled in this course are required to complete two summer readings to be determined.

Course Description: This course studies early literary developments of England from the early Middle Ages to the present. Emphasis will be on the major writers and their contributions to changing concepts of literary form and content. The year's study will conclude with contemporary societal viewpoints as expressed in modern works of literature. Students will analyze argument and compose essays addressing both sides of argument. The analysis of Latin/Greek rooted vocabulary and literary terminology will continue with this course. Students will enhance their critical thinking and analytical writing skills by completing a variety of essays as well as a formal MLA documented literary criticism research paper that is a requirement for graduation.

ADVANCED PLACEMENT LITERATURE AND COMPOSITION #1710
Grades 11, 12 (1 Credit)

Prerequisites: Successful completion of AP English Language and Composition and a commitment to the careful reading and critical analysis of literature. Students enrolled in this course are required to complete two summer readings to be determined

Course Description: The overall description of this intensive course is defined by the College Board. Advanced Placement Literature and Composition is a college level course that engages students in careful reading and critical analysis of imaginative literature. Through the close reading of selected texts that include short fiction, novels, drama, and poetry, students deepen their understanding of the ways writers use language to provide both meaning and pleasure for their readers. As they read, students consider a work's structure, style, and themes as well as such smaller-scale elements as the use of figurative language, imagery, symbolism, and tone. Students will enhance their critical thinking and analytical writing skills by completing a variety of essays as well as a formal MLA documented literary criticism research paper that is a requirement for graduation.

RESEARCH (required elective) #1882
Grade: 9 (.5 Credit)

Prerequisites: All Freshmen and incoming transfer students must take this course. Students are required to obtain a public library card and their own copy of *A Pocket Style Manual 6th* or newer Edition by Diana Hacker.

Course Description: This course is designed to prepare the student for the requirements of research paper writing. This skill is necessary to complete the research paper that is required in all Language Arts classes and many of the other disciplines at Collegiate Academy. It is a vital skill in all college/university course work. Students will be given intensive instruction in all phases of the research process, from selection of a topic to the publication of an actual paper. The course follows the Modern Language Association of America (MLA) format for textual citation. The course also teaches the retrieval of information from traditional sources to the latest electronic resources. Successful completion of all steps in the research process are required in order to pass this course.

JOURNALISM #1854
Grades: 9, 10, 11, 12 (.5 Credit)

Prerequisites: None

Course Description: What are your First Amendment rights, and why are they important to us? How does the media impact your life and people's perceptions of the world and others in it? Students will explore these questions on a daily basis through class discussions, group and individual projects, and writing assignments. The newspaper is only the beginning as students read, watch, and evaluate various modes of the media and become acquainted with journalistic techniques including interviewing, research, and composition of various types of articles. This class is a foundation for News Magazine, Yearbook, and KING TV.

MEDIA STUDIES #1862
Grades: 9, 10, 11, 12 (.5 Credit)

Prerequisites: None

Course Description: This class explores the history of media including: early advertisements, radio broadcasts, television, motion pictures, and the Internet. Students will then analyze how these types of media have evolved over time to meet the needs of a modern society. This is a hands-on class in which students will have many opportunities to work in groups; there is very little lecture. The class is as interesting as students make it. Students will create an advertising campaign for a unique product, perform radio skits, create videos, blogs, and websites in order to present information to their classmates, and utilize the most recent information on the Internet to understand what the modern media is. This is a great class for students interested in marketing, television, motion pictures, the Internet, and the future of all types of media.

YEARBOOK #1822
Grades: 10, 11, 12 (1 Credit)

Prerequisites: Journalism and Desktop Publishing
Teacher Recommendation

Course Description: The selected, highly self-motivated, and creative members of the yearbook staff are responsible for the successful production of our yearbook, *The Collegian*, using Jostens Yearbook Avenue. These students design all aspects of the yearbook and cooperate as a team with one goal in mind: The best yearbook ever!

NEWS MAGAZINE #1828
Grades: 10, 11, 12 (1 Credit)

Prerequisites: Journalism and Desktop Publishing
Teacher recommendation

Course Description: This is a "hands on" course in which students will sell advertisements to pay for the issues, utilize the writing process to generate news, feature, and editorial pieces for publication in a professional quarterly news magazine. Students will also maintain and promote the online form of the magazine, and utilize the InDesign and PhotoShop

programs to create original layout designs for the publication. Students are responsible for all of the process of creating a news magazine and maintaining the accompanying website.

THEATRE ARTS I #1834
Grades: 9, 10, 11, 12 (.5 Credit)

Course Description: This one semester course will introduce students to the fundamentals of acting and theatre, including the historical development of the stage. Students will be introduced to many aspects of technical theatre. Basic acting techniques and terminology will be covered through improvisation, scripted rehearsals and performance.

THEATRE ARTS II #1836
Grades: 10, 11, 12 (.5 Credit)

Prerequisites: Theatre Arts I

Course Description: This one semester course will allow students to continue to improve acting skills through improvisation, scripted rehearsal and performances with a higher concentration on character development and script interpretation. A greater involvement in technical theatre and design will be included in this class. Students will also learn of the many careers available in the world of theatre. Participants are required to view theatrical productions throughout the semester and compose reviews of the many aspects of the production.

THEATRICAL PRODUCTION #1840 Fall
Grades: 10, 11, 12 #1842 Spring (.5 Credit)

Prerequisites: Theatre Arts I and II

Course description: The focus of this one semester class involves the producing of the school theatrical productions. Using the skills learned in previous theatre classes, the students work on all aspects of the school's productions including; publicity, set design/construction, costume design/construction, lighting, sound, makeup, and props as well as stage management and direction. Students will also continue working on performance skills through acting exercises. Participants are required to view theatrical productions throughout the year and compose reviews of the many aspects of the production. This course may be taken more than once.

WOMEN'S AND AFRICAN AMERICAN LITERATURE #1857
Grades: 10, 11, 12 (.5 Credit)

Prerequisites: Language Arts 9

Course Description: This course devotes the first quarter to women's literature and the second quarter to literature written by African Americans.

The first quarter will focus primarily on works written by women in the late 19th and the entire 20th century. One main goal of the course will be to attempt to answer these questions: Why study women's literature separately? How is women's literature different than work written by men? Our understanding of the works we read will be enhanced by consideration of the historical contexts in which they were written.

The second quarter will focus on literature written by African Americans. One main goal will be to attempt to answer these questions: Why study African American literature separately from literature written by others? How is African American literature different than work written by others? Because understanding the historical context of this literature is especially important in order to fully appreciate it, this course will be structured chronologically, beginning with the Colonial period, and moving through the Antebellum, Reconstruction, Harlem Renaissance, Protest, Black Aesthetics, and Neorealist periods.

CREATIVE WRITING #1852
Grades: 11, 12 (.5 Credit)

Prerequisites: Language Arts 9 and 10

Course Description: This is a course for the student who loves to read and write—the creative soul. Students will work within a workshop atmosphere providing and accepting critiques of their own work and the work of others. In addition, there will also be in-depth discussion of some classic and contemporary work by established writers. Creative Writing provides opportunities for students to refine their creative writing skills and abilities beyond those developed in the required English courses. This course encourages students to see creative writing as a unique way of thinking, and as a means of constructing and conveying meaning. Students in the creative writing course are encouraged to explore and develop their own ideas. Through experiences in creative writing, students are encouraged to explore connections between their own writing, the writing of others, and the broader world around them.

BROADCAST JOURNALISM #1802
Grades: 9, 10, 11, 12 (.5 Credit)

Prerequisites: None

Course Description: Behind the camera or in front of the camera, it's covered in Broadcast Journalism. This course introduces students to all aspects of broadcast news and video production, including shooting, editing, and adding special effects to video, as well as writing and reporting for the small screen. Students in this class will gain experience in all three phases of production, working in teams to create a series of video projects, including public service announcements, music videos, and news packages.

BROADCAST JOURNALISM II #1804
Grades: 10, 11, 12 (.5 Credit)

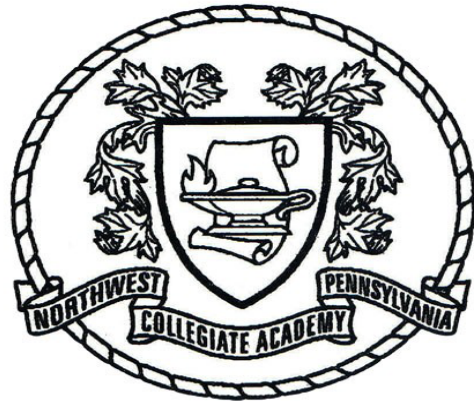
Prerequisites: Broadcast Journalism I

Course Description: This one semester course is a continuation of Broadcast Journalism I. The course will allow the student to improve newscast and video production skills learned in Broadcast Journalism I. The students will: produce public service announcements for use in the school during morning announcements, film classroom videos for teacher use during lessons, create and produce an infomercial, and design and film a promotional music video. The final class project will be to create a news package and present this package to a local television studio. This is an exciting course for any creative student interested in multimedia production and presentation.

TELEVISION PRACTICUM (K.I.N.G. – TV) #1800
Grades: 10, 11, 12 (1 Credit)

Prerequisites: Journalism I and Broadcast Journalism I, teacher recommendation, and audition.

Course Description: “Three. Two. One. Take tape with audio full; ready camera one on a two shot in three, two, one. Cue anchors and open their mics.” This pressure-filled atmosphere of live TV is intended to excite and motivate students. Students are required to arrive at the studio at 7:40 in the morning and work in their various positions until 8:20 every morning. This Language Arts course will allow students to put all the communication theories and production techniques to work as they produce daily, weekly, and specialized video packages to be broadcast to the rest of the school. The classroom is an actual television studio where students combine their on-air and behind the scene talents to broadcast live every morning. Students will rotate positions throughout the year and find themselves in the role of a technical director, audio or tape engineer, a graphics or camera operator, an anchor or possibly a producer.



MATHEMATICS

MATHEMATICS

9 th Grade	10 th Grade	11 th Grade	12 th Grade
Algebra I	Geometry	Algebra II	Trig/Pre-calculus
			College Algebra
			AP Statistics
Geometry	Algebra II	Trig/Pre-Calculus*	AP Calculus AB
		College Algebra/Trig	AP Calculus BC
			AP Statistics
			Statistics
Geometry and Algebra 2 concurrently**	Trig/Pre-calculus	AP Calculus AB	College Math Class
		AP Calculus BC	
		AP Statistics	AP Statistics

*It is highly recommended that any student wishing to take any of the Calculus classes take Trig/Pre-Calculus.

** Students who take Geometry and Algebra II concurrently do so with the intent of exhausting our Mathematics curriculum and possibly taking College classes to continue their mathematical education during their Jr. or Sr. year.

Calculator Requirements

- No graphing calculator is permitted in Algebra I
- A scientific calculator is required for Geometry
- A graphing calculator (TI-83 or TI-84 series) is required for all classes beginning with Algebra II

ALGEBRA I Grade: 9

#3402
(1 Credit)

Course Description: This course is the building block of the high school mathematics curriculum. Students will learn the applications and terminology of Algebra. This course is designed to help students succeed in future mathematics classes in the high school and college environment. This class focuses on reading and writing mathematically, communicating with mathematics, organizational skills and, of course, Algebra.

GEOMETRY Grades: 9, 10

#3502
(1 Credit)

Prerequisites: Algebra I

Course Description: This course focuses on learning concepts in plane and solid Euclidean Geometry, starting with the basics; points, lines, planes and angles and working into two-dimensional figures such as triangles, polygons and circles. Students will concentrate with area of two-dimensional figures and surface area, volume of three-dimensional figures and coordinate geometry. The curriculum

is aligned with the topics covering the PSSA and SAT standardized tests.

ALGEBRA II Grades: 10, 11

#3602
(1 Credit)

Prerequisites: Algebra I

Course Description: This course will further students' knowledge of algebraic concepts and increases skills in algebraic computations. Algebra II constantly reviews concepts covered in Algebra I. Functions covered include: Linear, Quadratic, Polynomial, Radical, and Rational. Students will be exposed to imaginary numbers, rational exponents, logarithms, and an introduction to probability and statistics. Students are expected to own a graphing calculator (preferably from TI-83 or TI-84 family). They will learn how to utilize this tool in class and on standardized tests.

ALGEBRAIC CONCEPTS Grade: 9

#3910
(.5 Credit)

Course Description: Algebraic Concepts answers the frequently asked question, "When am I EVER going to use Algebra?" Through real world simulations, this course dives deeper into how understanding algebra knowledge and skills will help students in their daily tasks and perhaps even accomplish their life goals.

TRIGONOMETRY/PRECALCULUS #3806
Grades: 10, 11, 12 (1 Credit)

Prerequisites: Geometry, Algebra II

Course Description: Trigonometry with Pre-Calculus develops the skills necessary to be successful in Calculus. The course includes the study of advanced algebra topics: polynomial, rational, logarithmic and exponential functions, graphs and asymptotes. Trigonometric topics include right triangle, functions, graphs, identities, equations, formulas and laws. The final segment of the course will introduce limits for Calculus. This course is intended for those students planning on taking AP Calculus.

COLLEGE ALGEBRA/TRIGONOMETRY #3802
Grades: 11, 12 (1 Credit)

Prerequisites: Geometry, Algebra II

Course Description: College Algebra/Trig is a full year course focusing on advanced algebra concepts; polynomial and rational functions, exponential and logarithmic functions, graphs of functions, systems of equations and inequalities. Trigonometric topics include functions and graphs, right and oblique triangles, identities, equations, complex numbers, formulas and laws. This course is intended for those students pursuing a mathematical or scientific field of study.

AP CALCULUS AB #3702
Grade: 11, 12 (1 Credit)

Prerequisites: Trigonometry/Pre-Calculus or College Algebra/Trigonometry

Course Description: The Advanced Placement course in Calculus consists of a full year of work study that is comparable to calculus courses in colleges and universities. It is expected that students who take an advanced placement course in calculus will seek college credit, college placement or both for institutions of higher learning. The course will consist of elementary functions and topics in differential and integral calculus as well as their applications. This course emphasizes a multirepresentational approach to calculus, with concepts, results and problems being expressed geometrically, numerically, analytically and verbally.

AP CALCULUS BC #3704
Grade: 11,12 (1 Credit)

Prerequisites: Trigonometry/Pre-Calculus or College Algebra/Trigonometry

Advanced Placement Calculus BC is a full year course that consists of the first 2 semesters of college calculus. The topics covered in this class include all the topics in AP Calculus AB, along with further topics of Improper Integrals, Sequences, Series, and Parametric, Polar and Vector Functions. It is expected that the student taking AP Calculus BC will seek college credit by taking The AP exam for Calculus BC. This

course is an extremely challenging course that should be taken by the hardest-working mathematics students seeking a career in a mathematics, science or engineering field.

AP STATISTICS #3714
Grades: 11, 12 (1 Credit)

Prerequisites: Algebra II

Course Description: The Advanced Placement course in Statistics consists of a comparable semester course in Statistics available in most colleges or universities. It is expected that students who take this advanced placement course in Statistics will seek college credit for this class. The course will consist of the major concepts and tools for collecting data, while analyzing and drawing conclusions from that data. Students are exposed to four broad conceptual themes.

- a. Exploring Data: Describing patterns and departures from patterns
- b. Sampling and Experimentation: Planning and conducting a study
- c. Anticipating patterns: Exploring random phenomena using probability and simulation
- d. Statistical inference: Estimating population parameters and testing hypothesis.

A secondary goal of this course is to give students the knowledge to be better consumers and learners.

- a. Students should be able to see or question the validity of statements or information presented to them in everyday life.
- b. Statistics is an integral part of many other subject areas; a well-rounded basic knowledge will benefit students through understanding concepts and relationships in other subjects such as the physical and social science.

PROBLEM SOLVING STRATEGIES #3904
Grades: 9, 10, 11, 12 (.5 Credit)

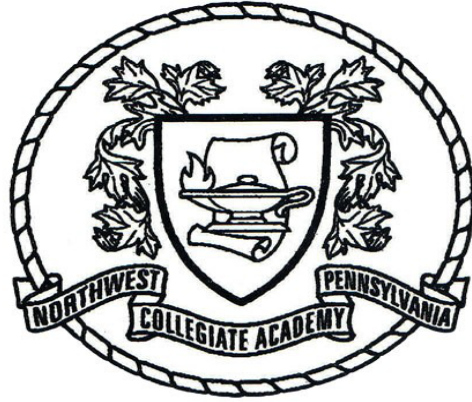
Prerequisites: None

Course Description: The basis of this class is the teaching and learning of strategies that people in the world of work use when solving problems. Specifically, students will develop problem solving strategies, communication skills and attitudes, all in a team environment.

STATISTICS #3712
Grades: 12 (1 Credit)

Prerequisites: Seniors only, must have completed Trig/Precalculus or College Algebra/Trigonometry

Course Description: This course overviews the essential concepts in statistics. Students learn how populations can be described by fundamental mathematical calculations. The importance of measures of central tendency is emphasized. Probability, sampling techniques, confidence intervals, and hypothesis testing are also discussed. The broad goal of this course is to illustrate the wide application of statistical techniques across many different professional fields.



MUSIC

MUSIC

Instrumental Classes:

INTRODUCTION TO BAND #8614
Grades: 9, 10, 11, 12 (1 Credit)

Prerequisites: Basic ability to read music is preferred, but not necessary.

Course Description: This is an entry level instrumental music class. This course is designed to teach students who have little to no previous musical training how to read music and play a traditional band instrument: flute, clarinet, saxophone, trumpet, French horn, trombone, baritone, tuba, or percussion. Students will learn basic music theory, musical terms, proper playing technique, as well as develop a sense of belonging and performing with an ensemble. The students will perform in at least one concert in the springtime. This course will help to prepare students for other instrumental ensembles such as Wind Ensemble or Jazz Band I.

WIND ENSEMBLE #8616
Grades: 9, 10, 11, 12 (1 Credit)

Prerequisites: Experience playing a woodwind, brass, or percussion instrument. A placement audition is required.

Course Description: This course is for the student who has previous experience playing a woodwind, brass, or percussion instrument and who can read music at an intermediate level or higher. Throughout this course, each student will learn about and perform contemporary styles of music, classical transcriptions, marches and standard concert band repertoire. Students will learn scales, articulations, basic music theory and will work together through ensemble playing as well as sectional rehearsals. Wind Ensemble will perform in two concerts throughout the year. One will be in the winter and the other will be in the spring time. The Wind Ensemble will also be required to perform at graduation.

ORCHESTRA #8602
Grades: 9, 10, 11, 12 (1 Credit)

Prerequisites: Experience playing an orchestral string instrument. A placement audition is required.

Course Description: This course is for the student who can read music at an intermediate level or higher and who has experience playing an orchestral string instrument: violin, viola, cello, or double bass. Students will perform a varied repertoire of music including orchestral transcriptions, multicultural works, classical pieces, and original pieces for string ensembles. The orchestra will perform in 2 concerts throughout the year: one in the winter and one in the spring, but they may be called upon for other occasions. Students will experience a sense of cooperation and teamwork as they rehearse in both small sectionals and as a larger ensemble during Orchestra class.

JAZZ BAND I #8702
Grades: 9, 10, 11, 12 (1 Credit)

Prerequisites: Experience playing a musical instrument. A placement audition is required.

Course Description: This 18-20 piece ensemble is open to intermediate level saxophone, trumpet and trombone players, and rhythm section musicians. The jazz rhythm section consists of a drummer, a pianist, a bass player, and a guitar player. Since jazz bands have a specific and limited instrumentation, this group is highly selective and is by audition only. Jazz I will perform in 2 concerts a year: one in the winter and one in the spring. Throughout the course each student will learn about contemporary styles of jazz music, jazz standards, and original compositions through performance and listening. Students will also learn the skill of improvisation and will experience a sense of cooperation and teamwork as they rehearse in both small sectionals and as a larger ensemble.

JAZZ BAND II #8704
Grades: 9, 10, 11, 12 (1 Credit)

Prerequisites: Experience playing a standard jazz band instrument. A placement audition is required.

Course Description: This 18-20 piece ensemble is open to advanced level saxophone, trumpet and trombone players, and rhythm section musicians. The jazz rhythm section consists of a drummer, a pianist, a bass player, and a guitar player. Since jazz bands have a specific and limited instrumentation, this group is highly selective and is by audition only. Jazz II will perform in at least 2 concerts a year: one in the winter and one in the spring, but they may be called upon to perform on other occasions. Throughout the course each student will learn about contemporary styles of jazz music, jazz standards, and original compositions through performance and listening. Students will also learn the skill of improvisation and will experience a sense of cooperation and teamwork as they rehearse in both small sectionals and as a larger ensemble.

CLASSIC PIANO #8522
Grades: 9,10,11,12 (.5 Credits)

Prerequisites: None.

Course Description: Classic Piano I is designed for students who have little or no musical experience. Students will learn how to read music by playing selected pieces from our text. Students will also learn basic music theory and music history as it relates to the learning of specific melodies by famous composers. Students will be assigned a keyboard and headphones, allowing them a "hands on approach" to the learning of the above subjects.

CLASSIC PIANO II #8526
(.5 Credits)

Prerequisites: Must have completed Classic Piano I or passed an entry evaluation. Must have a basic understanding of reading music.

Course Description: Classic Piano II begins where Classic Piano I leaves off. Students will learn more advanced chord theory and finger techniques by building a larger repertoire of classical, jazz, folk, and pop music. By the end of this course students will have a solid foundation to be able to continue playing throughout their entire life. This course can also be taken by more advanced players who wish to continue to develop and broaden their musical horizons.

Vocal Classes:

GRADE 9 GIRLS' CHORUS #8402
Grade: 9 (1 Credit)

Prerequisites: Must be able to sing on pitch. Some choral experience is helpful.

Course Description: This beginning level chorus is an excellent introduction to the Collegiate Academy Vocal Department. It does not require an audition and is open to all freshmen girls. In addition to preparing choral selections for concert performances, portions of the class are conducted in the manner of a group voice lesson. Singers will focus on the basics of building correct vocal and choral techniques and will receive instruction in breath control, the development of a clear and open vocal tone and vocal range expansion. Music-reading skills – including beginning sight-singing, rehearsal techniques and singing groups harmonies will be addressed. In addition to improving individual vocal skills, the group dynamics of this class provide a wonderful vehicle for the development of friendships and a sense of belonging.

***Pianists may audition to serve as accompanists.**

WOMEN'S CHORUS #8412
Grades: 10, 11, 12 (1 Credit)

Prerequisites: A placement audition is required. Must be able to sing on pitch.

Course Description: This course is an intermediate level choral group open to girls in grades 10-12 and requires an audition. Students will continue to address the development of correct vocal techniques and music reading skills through the use of more advanced choral literature, performing both 3 and 4 part selections. A variety of musical styles, including classical, spirituals, Broadway and pop/contemporary selections will be used throughout the year. Students will sing in a variety of foreign languages and will be introduced to a cappella singing. ***Pianists may audition to serve as accompanists.**

CHAMBER SINGERS #8424
Grades: 10, 11, 12 (1 Credit)

Prerequisites: A placement audition is required. Must be able to sing on pitch. *9th grade boys may also audition for this class.

Course Description: Chamber Singers is an advanced level traditional mixed choral group. This prestigious 50-60 member ensemble regularly performs for both school and community events. Choral selections range from such classical works as Handel's *Messiah* and Mozart's *Requiem* to spirituals, Broadway and contemporary works. While an emphasis is placed on a cappella singing, students also perform with live instrumentation. Students from this group consistently qualify for Region II and PMEA State Honors Choruses.

ACADEMY VOCAL JAZZ #8448
Grades: 10, 11, 12 (1 Credit)

Prerequisites: Enrollment is by audition only. Must be able to sing on pitch. Some choral experience is helpful.

Course Description: For the advanced singer, this select group of 14 singers performs vocal jazz music in the style of Manhattan Transfer and New York Voices. They have performed at Disney World and have been featured at Jazz Erie events. They also present Singing Valentines – a yearly fund-raising event. In addition to preparing concert selections, this group focuses on the unique characteristics of vocal jazz, such as improvisation. Vocal Jazz singers practice improvisation or "scatting," every class and listen to such jazz greats as Ella Fitzgerald & Billie Holiday. When performing, students sing with individual microphones and a sound system. Stage presence, vocal projection and blend, and microphone technique are also addressed. Students perform with CD accompaniment, piano accompaniment and live instrumentation. Students from this class have been selected to perform with the PMEA State Vocal Jazz Ensemble.

ADVANCED VOICE #8444
Grades: 9, 10, 11, 12 (1 Credit)

Prerequisites: Enrollment is by audition only. Must be able to sing on pitch. Some choral experience is helpful.

Course Description: For the serious singer, this audition only course is designed to provide group and private vocal instruction. Students displaying exceptional ability will work to develop correct vocal techniques and music reading skills, and in the process develop confidence and poise in performance situations. Audition preparation will be also addressed. Students will sing in a variety of musical styles including Broadway, classical and art songs, and will be required to perform in foreign languages. Quarterly Master Classes will be conducted and two recitals will be presented each year.

VOCAL CLASS POLICIES:

Concerts presented for the school and various evening performances are required attendances. Unexcused absence will result in an immediate failure for that term. Students must memorize all performance literature and sing their part accurately. Each student is expected to give 100% effort, attention and participation in every rehearsal and performance. Failure to do so will result in the loss of percentage points on the final grade for the term.

The following courses run in a two-year cycle.

ADVANCED PLACEMENT MUSIC THEORY #8804
Grades: 10, 11, 12 (1 Credit)

***THIS COURSE WILL BE OFFERED IN ALL ODD YEARS.**

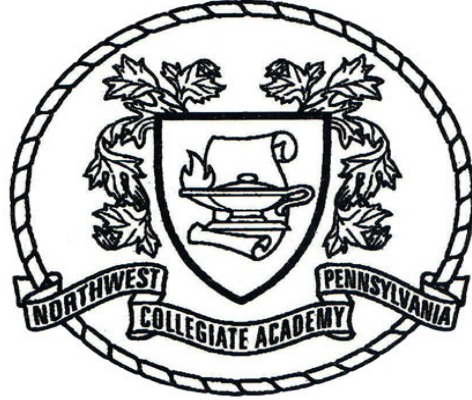
Prerequisites: Music Theory; must be able to read music and match pitch; previous study of an instrument or voice. Student must take a written pretest and an aural skills test.

Course Description: This college level course provides instruction in advanced music theory skills and prepares students to take the Advanced Placement Music Theory examination. The course begins with a review of the material covered in the MUSIC THEORY course and moves into more complex skills including advanced analysis, four-part writing, secondary dominants and modulations. Aural skills will continue to be developed by using more advanced levels of melodic and harmonic dictation in the classroom, and with the *Auralia* program. Also included will be sight-singing examples. Students who successfully pass the AP exam may be rewarded college credit and/or be equipped to test out of level 1 college music theory. In addition, each student will compose an original work at the end of the year for presentation to the class.

MUSIC THEORY #8802
Grades: 10, 11, 12 (1 credit)

***THIS COURSE WILL BE OFFERED IN EVEN YEARS.**

Course Description: For the student interested in music composition and/or considering music as a college major, MUSIC THEORY provides the tools necessary to get started. This course is open to students in grades 10-12 and will prepare students to take AP MUSIC THEORY, which is offered in alternating years. The fundamentals of music – such as notation, rhythm, intervals and chords – will be addressed, as well as an introduction to melodic elements and beginning four-part chorale writing in the style of Bach. (Common Practice) Ear-training (aural skills) is a major aspect of the course. In addition to classroom instruction, students will work in the Music Lab using the *Auralia* Ear-training computer program. Students will also be required to learn basic solfège (sight-singing). ***Students should be able to read both bass and treble clefs.**



SCIENCE

Career Track	Freshman Year	Sophomore Year	Junior Year	Senior Year
Biologist / Geneticist	Honors Biology	Honors Chemistry Human Biology Anat/Physiology	AP Chemistry Organic Chemistry Physics *	AP Biology Anatomy/Physiology
Pre-Med/ Pre-Vet/ Pre-Dental/ PT/Nursing / Health Professions	Honors Biology	Honors Chemistry Anat/Physiology	AP Chemistry Organic, Physics * Anatomy/Physiology	AP Biology AP Physics Organic Chemistry
Chemist/ Biochemist/ Pharmaceutical Chemist	Honors Biology	Honors Chemistry Human Biology	AP Chemistry Physics * Organic Chemistry	AP Biology AP Physics Freshwater and Marine Biology
Engineering: Mechanical, Chemical, Electrical	Honors Biology	Honors Chemistry	AP Chemistry Physics* Organic Chemistry	AP Physics AP Environmental Engineering
Environmental Engineer Civil Engineer, Architect	Honors Biology	Honors Chemistry	Physics * AP Chemistry Engineering	AP Physics AP Environmental Engineering
Earth Science/ Enviro. Science/ Meteorology/ Oceanography	Honors Biology	Honors Chemistry Human Biology	Physics *	AP Environmental Freshwater and Marine Biology
NON- Science Majors	Honors Biology	Honors Chemistry	Human Biology or AP area of interest	Anatomy, Physics, or AP area of interest

SCIENCE

BIOLOGY Grade: 9

#4502
(1 Credit)

Prerequisites: None

Course Description: What are living things made of and what makes them work? How can a molecule hold instructions to make living things? Biology is learned through the process of investigating chemistry, cell structure and function, genetics, evolution, classification and taxonomy and ecology. This required freshman course builds the use of logic, creativity, and analytical skills in an inquiry-based setting to teach the fundamentals of biology.

CHEMISTRY Grade: 10

#4602
(1 Credit)

Prerequisites: Biology

Course Description: Many natural phenomena can be explained by understanding what happens on the molecular level. Students will see these mysteries unravel as they study the interactions between and among different types of matter. Students will be introduced to the basic concepts of inorganic chemistry, including but not restricted to: atomic theory, periodicity, quantitative calculations in chemistry, writing and balancing equations, bonding theory, stoichiometry, acid and bases, solution chemistry, and ideal gas law applications. The course will include extensive lab work relating the lecture material to real life situations. Formal lab reports will be required.

HUMAN BIOLOGY Grades: 10, 11, 12

#4512
(1 Credit)

Prerequisites: None

Course Description: Have you ever wondered about the various aspects of life on Earth? Do you seek a deeper understanding of humanity's impact upon life on this planet? Are you looking for a course that will help you prepare for AP Biology, AP Chemistry, AP Environmental Science, Anatomy and Physiology or any science laboratory course? Then Human Biology is for you.

The great strides made in biology have had a deep impact on our understanding of human health, disease and environmental issues. In this class we will explore best lab practices, environmental issues, human health and disease, and current biotech issues in order to help the students prepare for the latest careers in medicine and environmental studies. Students will learn how to extract DNA using electrophoresis, and then compare the genomes of various organisms. Computer modeling, digital microscopy, bioethics and applying life processes in order to make a product or solve a problem will be part of the curriculum. This intensively hands-on course

will increase your understanding of the interactions between humans and the environment we live in.

ADVANCED PLACEMENT PHYSICS I Grades: 11, 12

#4706
(1 Credit)

Prerequisites: Biology, Chemistry, Geometry, Algebra II

Course Materials: Scientific calculator is required

Course Description: Did you ever wonder where you could actually use all that math from Algebra II class? This course uses Algebra II level math to relate matter, motion, and energy. Expect laboratory activities to measure, analyze, and predict the physical world around us. Also, expect problem solving activities with extensive use of mathematics. Areas covered: classical mechanics, heat, wave phenomena, and electricity.

ADVANCED PLACEMENT PHYSICS II Grades: 12

#4708
(1 Credit)

Prerequisites: Physics (Concurrent enrollment in calculus recommended)

Course Materials: Scientific calculator is required.

Course Description: Do you want to learn even more about the topics covered in Physics? This course continues where Physics left off. It provides students with the opportunity to receive college credit. Expect a more intense program of critical thinking and analytic mathematical problem solving based on lecture, group collaboration, and independent study. Topics include: Fluid mechanics, thermal physics, atomic and nuclear physics, and quantum mechanics and more in-depth classical mechanics.

PRINCIPLES OF ENGINEERING Grades: 11, 12

#4832
(1 Credit)

Prerequisites: Concurrent enrollment or completion of Physics and Computer Aided Design

Course Description: The purpose of this class is for students to gain hands-on experience in the engineering field by researching and developing solutions to problem-based projects using the "design cycle." The concept of the "design cycle", research, design modeling, building, testing, and review are required for each project. FIRST® Robotics participants and students interested in pursuing an engineering career will find this class helpful.

HUMAN ANATOMY & PHYSIOLOGY #4802
Grades: 11, 12 (1 Credit)

Prerequisites: Biology, Chemistry

Course Description: Unlocking the mysteries of the human body continues to be a monumental challenge. Everyday there are new diseases to cure, technological advancements to implement, and ethical decisions to be made. What will we face in the future? The content material will particularly benefit students planning careers in the medical or health science areas. The introductory topics of anatomical terminology and body tissues will provide the foundation for the study of the body systems. Anatomy (structure) as related to physiology (function) and diseases of the body systems will be emphasized through lectures, group and project work, dissections, and laboratory activities. It is recommended that A&P be taken concurrently with AP Biology.

ADVANCED PLACEMENT BIOLOGY #4508
Grades: 11, 12 (1 Credit)

Prerequisites: Biology, Chemistry

Course Description: Scientists have determined much of what makes living things work at the cellular level, systems level, and the environmental level, yet many questions remain unanswered. This course examines what we know and what we don't know about living things. It also investigates the evidence supporting our ideas. This course teaches all of the topics found in the first two freshman biology courses and the first two labs at a typical university. Twelve AP labs are required. It is strongly recommended that students also take or have taken the AP Chemistry and Anatomy and Physiology courses. Students will be prepared to take the Advanced Placement Biology exam in the spring.

ORGANIC CHEMISTRY #4606
Grades 11, 12 (1 Credit)

Prerequisites: Chemistry

Course Description: This is an entry level survey course of organic chemistry that will cover a large number of topics. This class is meant to introduce the basic principles of organic chemistry to students looking to pursue science-based majors in college and allows them to develop a solid background before taking it at the college level. Subjects will include, but not be limited to: alkanes, alkenes, alkynes, nomenclature, reactions, aromatic hydrocarbons, stereochemistry, halogenated compounds, reaction mechanisms, and analysis of functional groups.

ADVANCED PLACEMENT CHEMISTRY #4608
Grades: 11, 12 (1 Credit)

Prerequisites: Biology, Chemistry

Course Description: This class is designed for the mathematically and scientifically minded student looking for a challenge. Students will be introduced to topics and concepts covered in a college freshman chemistry course of both lecture and lab. They will attain a depth of understanding of fundamentals and a competence in dealing with chemical problems. The course will contribute to the development of students' ability to think clearly and express their ideas, orally and in writing, with clarity and logic. An emphasis will be placed on complex quantitative calculations related to chemistry. Topics covered will include but not limited to: chemical foundations, atoms, molecules and ions, stoichiometry, chemical reactions, solution chemistry, gas laws, thermo chemistry, atomic structure, periodicity, bonding theory, orbital theory, liquids and solids, colligative properties, kinetics, chemical equilibrium, acids and bases, spontaneity, entropy, free energy, electrochemistry, and nuclear chemistry. Laboratory work will be an integral part of the class. It is strongly recommended that students take this class in direct succession to Chemistry. Students will be prepared to take the Advanced Placement Chemistry Exam in the spring.

ADVANCED PLACEMENT ENVIRONMENTAL SCIENCE #4816
Grades: 11, 12 (1 Credit)

Prerequisites: Biology, Chemistry

Course Description: "Now I truly believe that we in this generation must come to terms with nature, and I think we're challenged, as mankind has never been challenged before, to prove our maturity and our mastery, not of nature but of ourselves." -----**Rachel Carson, Silent Spring**. As this course progresses, students will view the world differently, become informed decision-makers, and grow to be stewards of the environment. The study of environmental science, in relation to the earth, is a combination of the physical, chemical, earth, and biological sciences. Topics covered include but are not limited to: ecosystems, biodiversity, population, resources, energy, pollution, urban planning, and sustainability. The study of economics and environmental law play an integral role in understanding the dynamics of the human impact on the earth. Field trips, laboratory exercises, group and project work, and individual assignments will enhance the content material. Students will be prepared to take the Advanced Placement Environmental Science exam in the spring.

SCIENCE CAPSTONE PROJECT
Grade: 12

#4932
(.5 Credit)

Prerequisites: Biology, Chemistry

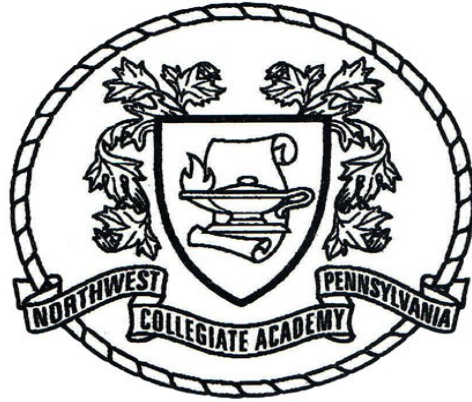
Course Description: This course is offered to seniors as a culmination of their high school science career. Biology, chemistry, physical, environmental and earth science will be integrated within a project-based format. Introductory activities will be based on the Living Building Challenge framework which includes Health; Beauty; Materials; Site; Water and Energy guidelines. These topics will provide the foundation for student-led initiatives that will promote positive behavior changes through operational and educational initiatives. Students will experience identifying, analyzing and solving problems as they progress through the steps involved in becoming stewards of the environment and their community. Project implementation will be a key outcome with the assistance of community partners and services. The practical application of research methods and auditing procedures makes this an exciting and unique experience.

FRESHWATER AND MARINE BIOLOGY
Grade: 11, 12

#4838
(1 Credit)

Prerequisites: Biology, Chemistry

Course Description: This course is designed to prepare students to compete successfully in the Ocean Bowl competition. It is not a requirement to compete. Topics will cover chemical and biological factors of freshwater and ocean water. It is a hands-on course with several labs designed to help student's problem solve and think critically. It will utilize higher-order thinking skills: data collection and analysis; problem-solving; Common Core strategies and the Next Generation Science Standards. Concepts in this class will include an integration of all sciences: biology; chemistry; earth science; environmental science; physical science, geology, geography



SOCIAL STUDIES

SOCIAL STUDIES

WORLD GEOGRAPHY

Grade: 9

#2410
(1 Credit)

Course Description: Students will experience the diversity of our world through the study of Geography and discover the challenges of our modern world through the examination of various cultures, climates, environments, governments, landforms, regions, and resources of the world.

ADVANCED PLACEMENT HUMAN GEOGRAPHY #2412

Grade: 9 (1 Credit)

Course Description: Advanced Placement Human Geography is a college level course in which students investigate, in great detail, how Human Geography impacts our daily lives and decision-making. Human Geography is the study of the patterns and processes that have shaped our understanding, use and alteration of the Earth's surface. Geographers ask the questions "Where?" and "Why?" Where is the world's population distributed and why? What is the impact of that distribution on our planet? Where is folk culture clustered? Where is the optimal place to locate a new business and why? Why do industries face problems? Why do boundaries with states cause problems?

Students will study basic geographical concepts and apply geographical thinking to population, economic and political data. They will study cultural geography, urban geography, agricultural geography, economic geography and environmental geography. Advanced Placement Human Geography students will employ spatial concepts and landscape analysis to analyze human social organization and its environmental consequences.

WORLD HISTORY

Grade: 10

#2402
(1 Credit)

Prerequisites: None.

Course Description: Is the nature of mankind good or evil? Why do we have wars? Do the good guys always win? We can theorize about this or listen to pundits on television. This course focuses on the modern era, which begins with the French Revolution in 1789. Students will be introduced to such topics as the Enlightenment, the French Revolution, the Industrial Revolution, European Nationalism and Imperialism, World War I and the Russian Revolution, the Great Depression, World War II and the Cold War.

ADVANCED PLACEMENT WORLD HISTORY #2408

Grade: 10 (1 Credit)

Prerequisites: None.

Course Description: Rome wasn't built in a day, but do you think you have what it takes to learn it in one? This is a college level course and will require extensive reading by the student. We begin with the study of ancient Egypt and

continue past the fall of the Berlin Wall into the Global War on Terror. Or is that the War on Global Terrorists?

The focus of this course is the intensification of international contacts and it is truly global in scope. It thus embraces ancient empires and city states in Europe, Asia, Africa, and Mesoamerica; the expansion of Islam; the Dark Ages and the Crusades; empires in China and India; Mongol dominance; the Renaissance, Reformation, and Scientific Revolution; European exploration, Spanish conquest of the Americas, and the Atlantic Slave Trade; Absolutism, the Enlightenment, and the American and French Revolutions; the spread of nationalism and industrialization; European dominance and global colonization; both World Wars, the Cold War and world-wide independence movements; and finally the new international system being created in the 21st Century. As a survey course it will focus on themes throughout history that serve as unifying threads, helping students to put what is particular about each period or society into a larger framework, and providing ways to make comparisons over time. These themes include the impact of interaction in and among societies; the relationship of change and continuity across the world; the impact of technology and demography on people and the environment; the importance of social and gender structures; the triumph and failures of cultural and intellectual developments; and changes in the functions and structures of political systems at home and abroad.

MODERN AMERICAN HISTORY

Grade: 11

#2602
(1 Credit)

Course Description: American history is not only the story of famous heroes and heroines but also of ordinary people. Remarkable leaders like Washington, Jefferson, Lincoln, Theodore and Franklin Roosevelt, and Ronald Reagan have guided the country in times of crises, while other men and women have been outstanding in business, science and education. But America's greatness also rests on the hard work and dedicated effort of countless "real" Americans, whose names we will never know. Throughout history, Americans have looked for new frontiers, pushing ever westward to build new towns and adding new states. Now Americans are looking forward to the frontiers of space. History is not only about yesterday's events but also about today's headlines and tomorrow's news. Ordinary people from many different backgrounds like you are the people who really write history. This is why we study history- because you are part of it! As we study American History we will use the themes of government, geography, diversity, economics, culture, foreign relations, and science and technology to understand history.

Our study of American History will begin in 1890's with the events leading up to the Spanish American War; the war that propelled American on to the world scene and began its ascent to the superpower it is today. This course will enhance Collegiate Academy students' knowledge and understanding of American History and increase her ability to decipher facts, dates, and events in order to bring history to life. Students will have a unique understanding of American society and

how it has survived and prospered. This course will also tie together what the student learned last year in World History and what the student will learn next year in Advanced Placement American Government and Politics.

ADVANCED PLACEMENT U.S. HISTORY #2716
Grades: 11, 12 (1 Credit)

Prerequisites: None

Course Description: This course offers an intense and timely approach to the social, economic, and political aspects of American History. We will examine the complex historical forces shaping peoples lives at various moments in our past through lectures, discussions, outside readings, research, and presentation projects. Topics include but are not limited to the beginnings of democracy, depression, war, westward settlement, civil and political rights, technological changes, and other issues that affect or have affected the plurality of our population. Students will be given the opportunity to understand and appreciate several important eras in American History including the struggle over the Constitution, the Civil War and Reconstruction, the Great Depression, World Wars I and II, the Cold War, and the many presidencies which shaped our great nation. Students completing the course will be prepared for the optional Advanced Placement exam at the end of the school year.

AMERICAN GOVERNMENT #2608
Grade: 12 (1 Credit)

Prerequisites: None

Course Description: This course analyzes the role government plays in society and helps seniors to prepare for participation in the electoral process. The course consists of a broad overview of the basic principles on which our country was founded; how those principles are reflected in the Constitution and the Bill of Rights; and the role of the legislative, executive, and judicial branches of government and our rights and responsibilities as citizens. Students will also study about political parties, public opinion, interest groups, and the electoral process at the federal level. Lastly, students will learn about the realities of politics and why politicians and political parties act as they do.

AP US GOVERNMENT AND POLITICS #2710
Grades: 11, 12 (1 Credit)

Prerequisites: None.

Course Description: Designed as a college level survey/ seminar elective in the study of American government. This course is very demanding, and recommended for students interested in careers in law and/or government. Its purpose is to discuss and demonstrate the American system of government. The AP American Government course provides an analytical perspective on government and politics in the United States, involving both the study of general concepts

used to interpret U.S. politics and the analysis of specific case studies. It also requires familiarity with the various institutions, groups, beliefs, and ideas that constitute U.S. political reality. Specifically, students will review the Constitutional underpinnings of United States government; political beliefs and behaviors; political parties, interest groups, and mass media; institutions of national government, including Congress, the Presidency, the executive bureaucracy, and the federal courts; public policy; and civil rights and civil liberties. The student will learn to evaluate the role of the national government in its relationship with the American people. This course is intended to prepare a student to successfully complete the Advanced Placement American Government and Politics Test that is offered in May of the school year.

ADVANCED PLACEMENT MACROECONOMICS #2712
Grades: 11, 12 (1 Credit)

Prerequisites: None

Course Description: Why does our money have value? Is it really a good idea for our government to strive for a balanced budget? Why should we care about the economics of other countries? What makes up our GDP? AP Macroeconomics is a course that looks at the United States' economy as a whole as well as how the world's different economies affect each other. We know our resources, including money, are scarce. So how do we most effectively allocate them? AP Macroeconomics analyzes all parts of the economy and how they work together; it will help you understand the world with far greater depth. Macroeconomics is a mathematical and technical look at the economy and the course will require a time commitment outside of the classroom dedicated to reading, research, and problem solving.

ADVANCED PLACEMENT EUROPEAN HISTORY #2708
Grades: 11, 12 (1 Credit)

Prerequisites: None.

Course Description: What big problems do we face in this world and how can we help? How do we distinguish between fact and opinion in learning about these issues? These and many other questions will be explored in Advanced Placement European History. Students will acquire and hone skills of vital importance to succeed in college and in life, and will also learn about important pieces of the past. Every person should be equal. Every society is deserving of respect. Furthermore, we should be familiar with the broad outline of all human development and understand the basic beliefs of all large cultures. But Europe has a special place in the creation of the modern, technological society in which we live. Our language and our laws derive directly from the European experience. Philosophy, art, literature, economic theory, etc. are all part of this inheritance. The modern research university, and modern mathematics and science come from Europe. If you wish to understand the good and the bad of American society you must first learn about Europe.

ADVANCED PLACEMENT PSYCHOLOGY #2714
Grades: 11, 12 (1 Credit)

Prerequisites: None

Course Description: The AP Psychology course is a challenging and fascinating journey into the study of the mind and matters related to it. Throughout history people have sought to describe, explain, and predict human thoughts, feelings and actions. This course exposes students to classic and contemporary views of the human struggle to adapt to the physical, psychological, and social worlds we inhabit. Have you ever wondered:

- What is a *déjà vu*?
- Why do some people have irrational fears of spiders or high places, while others are attracted to them?
- Is it our genes or our experiences that shape our personalities?
- What are dreams and what is their significance?
- How is the mind different from the brain?
- Do all animals have a conscious mind?

To investigate these and other questions, this course will delve into the realms of neuroscience, human development, sensation and perception, consciousness, learning theory, memory, intelligence, personality, and abnormal behavior. The student should gain valuable knowledge and insight regarding mind-body interaction as well as interaction of the individual and society.

The purpose of the Advanced Placement course in Psychology is to introduce students to the systematic and scientific study of the behavior and mental processes of human beings and other animals. Students are exposed to the facts, principles, and phenomena associated with each of the major sub fields within psychology. They also learn about the methods psychologists use in their science and practice. The aim is to provide the student with a learning experience equivalent to that obtained in most college introductory Psychology courses. The Advanced Placement course in Psychology gives the

student the chance to try college-level work in high school. A "qualifying" grade on the AP exam is accepted by thousands of colleges worldwide.

APPLIED ECONOMICS #2810
Grade: 12 (.5 Credit)

Prerequisites: None

Course Description: Applied economics is designed to introduce students to how economics applies to the real world. This is an application course. Some theory will be explained to set up activities and projects that link student behavior and choices to the economy and society. The course will explore topics that deal directly with student lives today and connections to their future. Students will be introduced to finance and investing, tax structures, the free enterprise system, business structures, marketing and advertising, labor unions, success principles, entrepreneurial ability, credit and interest rates. These are concepts that all students need to have knowledge of and experience in. This course will consist heavily of group projects, cooperative learning, outside research, public speaking and teacher directed in-class activities.

INTERNATIONAL RELATIONS #2836
Grades: 11 (.5 Credit)

Prerequisites: None

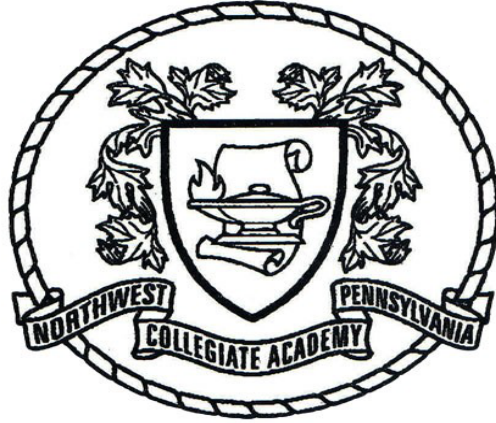
Course Description: In more ways than we realize, our lives have become internationalized. Information media have played a significant role in narrowing the information gap between nations. We can share opinions with citizens around the world via the Web. Turning on a television, we can witness a war, a riot, an earthquake, a military coup, a rebellion, a protest, or an election in a distant part of the world. Non-state actors, such as international corporations, are becoming increasingly important and much of what we buy is resourced, produced or assembled overseas. Yet, the fundamental problem of international relations continues to be the perennial question of conflict and violence within and between states. The world is coming together, and flying apart, faster than ever before. These changes create dangers and opportunities for all of us, but it isn't always easy to tell the two apart. To deal with this dilemma, the course will provide students with the necessary historical background, theoretical concepts, and analytical tools to make sense of a complex and constantly changing world. This course is fast paced, taught at the college level, and will require extensive reading and participation by the student.

SOCIOLOGY
Grades: 11, 12

#2844
(.5 credit)

Prerequisites: None

Course Description: This course provides a basic understanding of the many areas within the field of sociology. Although the study of society goes back hundreds of years, we will use the contemporary (1960s and later) examples and themes in our course work. Students will gain the knowledge in the discipline to understand and apply basic sociological theories to a variety of events seen in everyday life. Areas will include: family, gender relations, popular culture, American culture, social stratification, class and power, and the roots of social conflict.



WELLNESS FITNESS

WELLNESS FITNESS

WELLNESS/FITNESS I

Grade: 9

#9426

(.5 Credit)

Course Materials: Folder with pockets, composition book, appropriate clothes for movement

Course Description: Begin the journey to vibrant health with this interactive wellness and physical education course. Can you locate your carotid and radial pulse? How intense should you exercise? Determine your level of physical fitness using *Fitnessgram* testing. Discover self esteem, proactive choices, and organizational techniques by Covey. In addition, students will participate in a curriculum rich in cooperative activities to foster strong friendships. Upon successful completion, they will receive the American Red Cross certification in CPR and First Aid.

“To do good things in the world, first you must know who you are and what brings meaning to your life.”
-Paula P. Brownlee

WELLNESS/FITNESS II

Grades: 10, 11, 12

#9428

(.5 Credit)

Prerequisites: Wellness/Fitness I

This course is mandatory for all sophomores

Course Materials: Folder with pockets, composition book, appropriate clothes for movement

Course Description: Continue the journey into vibrant health with exploring the consequences of addictive behavior. Any behavior that interferes with life can be devastating to self, family, schoolmates, and the school itself. While alcohol and drug use is of great concern, an entire gamut of other behaviors can affect our lives – food addictions like anorexia and bulimia; nicotine, gambling, and even computer and shopping addictions will be examined. Students will also participate in a variety of lifetime fitness activities including badminton, volleyball, shuffleboard, Frisbee, and strength training.

“May you live all the days of your life.”
-Jonathan Swift

PRINCIPLES OF ATHLETIC TRAINING

Grade: 11, 12

#9524

(.5 Credit)

Prerequisites: Wellness/Fitness I and II
Anatomy and Physiology (or currently taking)

Course Materials: Folder with pockets, composition book, appropriate clothes for movement

Course Description: Experience the career discipline of Sports Medicine as this class journeys into an interactive athletic training course. Sports Medicine programs encompass the health related professions which prevent and manage injuries related to individuals and organized sports. Students will study the dynamic human body from a myriad of perspectives: anatomy, kinesiology, injuries, rehabilitation, and exercise conditioning. The expertise of local professionals from the community will be utilized as guest speakers and shadowing opportunities will be available. Athletic Training provides a strong foundation for career choices in Sports Medicine.

“My interest is in the future, because I am going to spend the rest of my life there.”
-Charles F. Kettering

PROJECT B-FIT

Grades: 11, 12

#9526

(.5 Credit)

Prerequisites: Wellness/Fitness I and II

Course Materials: Folder with pockets, composition book, appropriate clothes for movement

Course Description: Explore your personal fitness and become a peer mentor for elementary students as you journey into the diversified class of Project B-Fit. Students will participate in a variety of aerobic activities such as brisk walking, step class, low impact aerobics, and paddleball. They will also be trained to be a B-Fit Leader. Through the use of song, dance, exercise, and storytelling, this class will impress upon elementary students the importance of making positive healthy lifestyle choices.

“Be the change that you want to see in the world.”
-Mahatma Gandhi

COMPETITIVE WELLNESS #9442
Grades: 10, 11, 12 (.5 Credit)

Prerequisites: Wellness/Fitness I and II

Course Description: Social interaction within a team setting is a vital aspect of Vibrant Health. Students will develop these skills as they journey into the challenging course of competitive wellness. They must be willing to participate in a highly competitive environment and demonstrate responsible behavior. They will participate in the following team sport units: Basketball, Volleyball, Flag-Football, Soccer and Softball. Each unit will conclude with playoffs and a championship game. In addition, students will be exposed to the psychological, sociological and moral aspects of sport in our culture.

*“Whenever you get knocked down in the game of life,
immediately get up, get better and get going again”
-Greg Hickman*

SPORTS NUTRITION FOR ENHANCED PERFORMANCE #9528
Grades: 10, 11, 12 (.5 Credit)

Prerequisites: Wellness/Fitness I and II

Course Materials: Folder with pockets, composition book, appropriate clothes for movement

Course Description: Journey into the nutritional domain to understand individual energy needs. This course brings the physiological effects of nutrition and physical activity in a powerful blend of theory and practice into the classroom.

Students will utilize state-of-the-art technology in the analysis of nutrition and physical activity. Content includes fueling the muscles, quick energy snacks, fluids, pre-exercise meals, recovery foods, supplementation, and eating disorders.

*“The future belongs to those who believe in the beauty of their dreams.”
-Eleanor Roosevelt*

PERSONAL FITNESS 9522
Grades: 10, 11, 12 (.5 Credit)

Prerequisites: Students must have previously taken Wellness I and II or currently be scheduled in Wellness II in order to be eligible for this course.

Course Description: This course is designed to identify and apply individual wellness principles introduced in Wellness Fitness I & II, through situational learning and diverse fitness settings. At the end of this course students will have learned the necessary tools to design a personal fitness model that can be utilized throughout their lifetime. In addition to the promotion of wellness, students will be exposed to several modes of fitness such as: Pilates/Yoga, Aerobics and/or Step Aerobics, Zumba, elements of Martial Arts, Kickboxing, Core

Strength/Stability, Circuit Training, Enhancing Cardiovascular Fitness and Resistance Training.

JAZZ DANCE I #9604
Grades: 9, 10, 11, 12 (.5 Credit)

Prerequisite: (Students must have previously taken Wellness Fitness I or currently be registered for Wellness Fitness I in order to be eligible for this course).

Course Materials: Appropriate dance attire with jazz shoes or dance sneakers.

Course Description: This course is designed for the beginning dancer with no previous dance experience who is looking for an introductory course of dance. Class is structured just as a professional jazz dance class with a warm-up, across the floor progressions, center combinations, and group choreography. Students will learn and develop basic rhythmic skills and weight shifts characteristic of Jazz dance such as: jazz runs, triplettes, chasses, jazz square, pas de bourees, battements and leaps. We also view dances on video to further enhance our process and to further expose students to dance on a more global perspective. Students may also participate in community and school performances. Scheduling preferences will be given to upperclassmen when necessary.

JAZZ DANCE II #9606
Grades: 10, 11, 12 (.5 credit)

Prerequisites: Completion of Jazz Dance I or permission to enroll in this class due to previous dance experience based upon the dance audition.

Course Description: This course is designed for the intermediate/advanced dancer with at least 3-5 years previous dance experience who is interested in learning advanced skills and increasing their jazz dance vocabulary. Class is structured just as a professional jazz dance class with a warm-up, across the floor progressions, center combinations, solo and group choreography. Students will continue to learn and develop complex rhythmic skills and weight shifts characteristic of Jazz Dance I to include: double & triple pirouettes, pas de bourees turns, layouts and grandes jétés. We also view dances on video to further enhance our process and to further expose students to dance on a more global perspective. Students may also participate in community and school performances.

MODERN DANCE I #9612
Grades: 9, 10, 11, 12 (.5 Credit)

Prerequisites: Students must have previously taken Wellness I, or currently be scheduled in Wellness I in order to be eligible for this course.

Course Materials: Appropriate dance attire with bare feet and/or socks.

Course Descriptions: This course is designed for the beginning dancer with no previous dance experience who is looking for an introductory course of dance. This course consists of learning and performing basic levels of the Graham

and Horton modern dance techniques. Class is structured just as a professional contemporary dance class with a warm-up, across the floor progressions, center combinations, improvisation and choreography. Students will learn and develop movement skills and weight shifts characteristic of the Graham and Horton technique such as: fall-recovery, contract-release, swings, "flat back" and coccyx balance. We also view dances on video to further expose students to Modern Dance from a global perspective. Students may also participate in community and school performances..

MODERN DANCE II

**#9614
(.5 Credit)**

Prerequisites: Completion of Modern Dance I or permission to enroll in this class due to previous dance experience based upon the dance audition.

Course Description: This course consists of learning and performing intermediate to advanced levels of the Graham and Horton Modern dance techniques. Class is structured just as a professional contemporary dance class with a warm-up, across the floor progressions, center combinations, improvisation and choreography. Students will continue to learn and develop advanced movement skills and weight shifts characteristic of the Graham and Horton technique and will include: Fortifications, Stags, Forced Arch, Tilts and Bison Jumps. We also view dances on video to further expose students to Modern Dance from a global perspective. Students may also participate in community and school performances. Scheduling preferences will be given to upperclassmen when necessary.

PERFORMING ARTS DANCE (CADENCE)

**#9618
(1 Credit)**

Grades: 9, 10, 11, 12

Prerequisites: Audition or Teacher permission

This course is the pinnacle of the dance program at Collegiate Academy. These students perform in a variety of performances and must demonstrate mastery of the fundamentals of dance. Students earn placement in this class based upon their performance audition. This class is the most advanced dance class offered at Collegiate Academy.

For further information regarding the Dance Department, please contact Ms. Hughes at 874-6300 ext. 2077 or by email at chughes@eriesd.org.

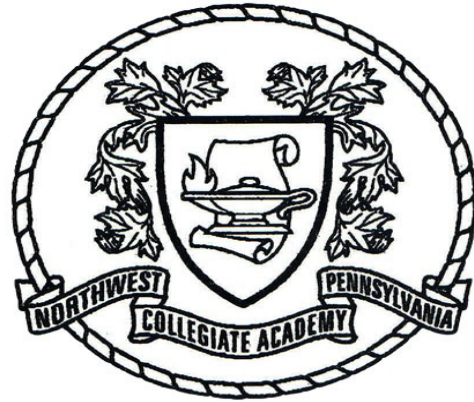
HIP HOP DANCE

Grades: 9, 10, 11, 12

Prerequisites: None

**#9616
(.5 Credit)**

Course Description: The course is designed for the novice dancer with no previous dance experience, or an experienced dancer looking for a fun, new experience in dance. Class is structured just as a traditional Hip Hop dance class with a warm-up, center combinations, group choreography and improvisation/freestyle. Students will learn and develop basic rhythmic skills and weight shifts to enhance learning and the performance of Hip Hop such as: Body Isolations, Drops, Body Bounce, Up-Rocking, House dancing and popular Street Dances, and elements of Breakdancing. We view dance on video to further enhance our process, to expose students to dance on a global perspective and to increase our knowledge of this unique, rich and vibrant culture. Students will also participate in school performances. Scheduling preferences will be given to upperclassmen when necessary.



WORLD LANGUAGES

WORLD LANGUAGE

Most children are experts in their own language by the time they go to Kindergarten.¹ The World Language Department at Collegiate Academy believes that it takes at least three years for a student acquiring a *second* language to achieve basic proficiency. Therefore, we require a minimum three-year commitment for the study of a World Language and offer the ability to take a fourth year. When students sign up for a language in their freshmen year, they are also choosing to explore the culture and mindset tied to that language. All World Language programs guide the student from novice toward an intermediate level. Students leave the program able to navigate outside the classroom in the language and culture of their choice. Students are also able to study *two* World Languages simultaneously, beginning in their sophomore year – and many do! Welcome to the Global Village!

Advanced Placement World Language

Students who want to continue their study of languages beyond the third year have the option of taking Advanced Placement classes in each language. These courses focus on preparing students for success on the AP test by training them to read, write, comprehend and speak their target language with intermediate proficiency. Specifically, students work to develop the ability to understand the spoken target language in various contexts; they develop the vocabulary sufficient for reading newspaper and magazine articles, literary texts, and other non-technical writing without dependence on a dictionary. Finally, students develop the ability to competently speak and comprehend the target language. Advanced Placement language study is not for the weak of heart; it is an extremely demanding course of study, but equally rewarding. Students acquire skills that they will use throughout their lives in our global society. Keep in mind that some universities offer up to 12 credits for a high passing score on the AP exam!

Latin- Isn't Latin old and dead? Not at Collegiate Academy!

We are one of very few programs at any level (middle school, high school, college, and graduate schools) which treats Latin as an actual language—we learn to speak in Latin! We treat Latin for what it is—a vibrant, beautiful, and fun language!

Students learn to communicate in Latin on the first day of class, and, before you know it, you are expressing thoughts, emotions, and asking questions in a language that has been spoken for over 2,000 years! In addition to language studies, we also look at the culture and history of both the Roman people and also their neighbors, such as the Greeks and Egyptians. We look at the art that everyday people created, as well the archaeological remains that tell us how these people, who were just like you and I, lived. If you ever want to study the Romance languages (such as Spanish, French, and Italian), or German, you will have a head start since Latin is the foundation for all of these languages! In addition, we have borrowed many words and grammatical constructions into our own English language, so studying Latin builds a strong foundation in both vocabulary and grammar—crucial elements for success on the SAT, AP exams, college courses, and even job letters. Latin has been spoken/studied for thousands of years by people such as Julius Caesar, St. Augustine, Dante, Chaucer, Shakespeare, Thomas Jefferson, Winston Churchill,

J.K. Rowling, and Mindy Kaling. Now you have the chance to join this amazing club!

German Language

If a student wants to learn a language that is spoken almost everywhere, study a people who are true leaders in the 21st century, and become familiar with a rich culture that is very closely tied to our own, then they should consider the study of German. German is the most common mother tongue in Europe. That makes sense, since Germany is the largest economy in the European Union and the third largest in the world! For those interested in business, the European Central Bank is headquartered in Frankfurt, more than 1100 companies from German-speaking countries have subsidiaries in the United States and more than 750 US companies are at work in Germany!!¹ Studying German expands career options! German is used in the fields of science, engineering, the arts, math, software production, publishing, and travel! The Internet extension .de is the second most common after .com, which means that Germans are the world's second largest presence on the Web. We can thank German inventors for the printing press, the automobile, the Fahrenheit thermometer, the X-ray, and even the MP3 digital music format. German is also surprisingly easy to learn. English is a Western Germanic language and the two languages have numerous similarities. German Americans make up one of the largest heritage groups in the United States. The traditions which German immigrants brought with them have become an integral part of our American heritage, including the names of many cities and towns. Studying German culture helps our understanding of American culture, too!

Spanish Language

With more than 400 million speakers worldwide, Spanish is the fourth most spoken language in our world. It is an official language of the United Nations, the European Union, NAFTA and OPEC. Being able to communicate in the Spanish language and culture gives one a competitive edge anywhere in the Western Hemisphere as well as in Europe.

Not only is Spanish spoken in four of the seven continents, but one can also hear the language and experience the culture right here in Erie, Pennsylvania. With more than thirty million Spanish speakers in the USA, it is the first language of one out of ten people in our country. It is crucial for our students to study this language to reach global and local opportunities that are right here, right now.

Mandarin Language

If students desire to learn the language spoken by more people globally than any other language, they should choose Mandarin Chinese. China is the most populous nation in the world, with 1.28 billion people which means one out of every six people on the globe speaks Chinese. Also, China has one of the world's oldest and richest cultures spanning more than 5,000 years of history. In addition to the People's Republic of China and Taiwan, Mandarin Chinese is also spoken in the Chinese communities of Indonesia, Thailand, Malaysia, Singapore, Brunei, the Philippines, and Mongolia which are also incredibly important and influential places for our government and economy. Studying Mandarin prepares students for the job market and politics for the 21st century. China is one of largest trading

partners of the United States, and numerous US companies conduct business in China. These companies need employees that can speak the language and understand the culture of the country. In politics, China is an increasingly important player in our world and Chinese is one of the six official languages of the United Nations as well as the Security Council.

In Mandarin classes at Collegiate, you will work on mastering the Chinese phonetic system, Pinyin, and on becoming confident with the Chinese writing system. Efforts will be continuously made to improve the accuracy of the student's pronunciation and the ability to convey meaning as well as improving reading and writing skills. Culture will be integrated at all levels within meaningful contexts.

Every year a growing number of students around the world are studying Mandarin with enthusiasm and success. If they all can learn it, so can you!

WORLD LANGUAGE SEQUENCE:

LATIN I # 1950
Grades: 9, 10, 11, 12 (1 Credit)

LATIN II #1952
Grades: 10, 11, 12 (1 Credit)

LATIN III #1954
Grades: 10, 11, 12 (1 Credit)

LATIN IV #1956
Grades: 10, 11, 12 (1Credit)

GERMAN LANGUAGE I #1940
Grades: 9, 10, 11, 12 (1 Credit)

GERMAN LANGUAGE II #1942
Grades: 9, 10, 11, 12 (1 Credit)

GERMAN LANGUAGE III #1944
Grades: 10, 11, 12 (1 Credit)

GERMAN LANGUAGE IV #1946
Grades: 10, 11, 12 (1 Credit)

ADVANCED PLACEMENT GERMAN LANGUAGE
Grades: 10, 11, 12 #1948
(1 Credit)

SPANISH LANGUAGE I #1924
Grades: 9, 10, 11, 12 (1 Credit)

SPANISH LANGUAGE II #1926
Grades: 9, 10, 11, 12 (1Credit)

SPANISH LANGUAGE III #1928
Grades: 10, 11, 12 (1 Credit)

SPANISH LANGUAGE IV #1930
Grades: 10, 11, 12 (1 Credit)

ADVANCED PLACEMENT SPANISH LANGUAGE #1932
Grades: 11, 12 (1 Credit)

MANDARIN LANGUAGE I #1962
Grades: 9, 10, 11, 12 (1 Credit)

MANDARIN LANGUAGE II #1964
Grades: 9, 10, 11, 12 (1Credit)

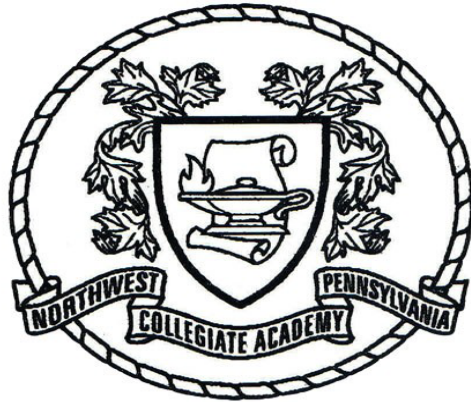
MANDARIN LANGUAGE III #1966
Grades: 10, 11, 12 (1 Credit)

MANDARIN LANGUAGE IV #1968
Grades: 10, 11, 12 (1 Credit)

INTRODUCTION TO CHINESE CULTURE #1968
Grades: 9, 10, 11, 12 (.5 Credit)

Prerequisites: None

This course is a preview of one of the fastest growing countries in the world. Students will explore centuries of Chinese tradition, major contributions to civilization, and a current, contemporary culture.



**JUNIOR RESERVE
OFFICER TRAINING
CORPS (JROTC)**

**JUNIOR RESERVE OFFICER
TRAINING CORPS (JROTC)
EAST OR STRONG VINCENT HIGH SCHOOL
(Must arrange your own transportation)**

**LEVEL I JROTC #9962
Grades: 9, 10, 11, 12 (1 Credit)**

Prerequisites: All cadets must maintain satisfactory grade or above to continue in JROTC.

Purpose: To provide an opportunity for leadership, education and training.

Course Description: First year cadets learn self-discipline, grooming, proper appearance, map reading, marksmanship, first aid, communication, drills and ceremonies, inspections and leadership. Tremendous emphasis is placed on conduct and attitude.

Requirements: Haircuts are required. Proper courtesies will be displayed.

**LEVEL II JROTC #9964
Grades: 10, 11, 12 (1 Credit)**

Prerequisites: All cadets must maintain satisfactory grade or above to continue in JROTC.

Purpose: To provide an opportunity for leadership, education and training.

Course Description: Second year cadets expand their knowledge of first year subjects and assume leadership positions along with recruiting and staff briefings. Emphasis is placed on communication, both oral and written. Cadets are introduced to problem solving techniques and counseling.

Requirements: Haircuts are required. Proper courtesies will be displayed.

**LEVEL III JROTC #9966
Grades: 11, 12 (1 Credit)**

Prerequisites: All cadets must maintain satisfactory grade or above to continue in JROTC and must have completed Level II of JROTC.

Purpose: To provide an opportunity for leadership, education and training.

Course Description: Third year cadets must maintain a satisfactory or above to continue in JROTC and must have completed Level II of JROTC.

Requirements: Haircuts are required. Proper courtesies will be displayed.

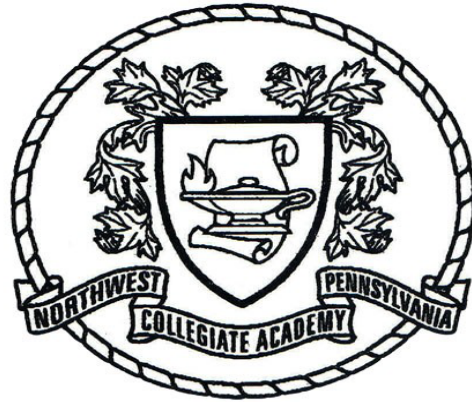
**LEVEL IV JROTC #9968
Grades: 11, 12 (1 Credit)**

Prerequisites: All cadets must maintain satisfactory grade or above to continue in JROTC and must have completed Level III of JROTC.

Purpose: To provide an opportunity for leadership, education and training.

Course Description: The fourth year is a self-study year with emphasis on leadership and communication along with preparations for those college bound students. The fourth year cadets are assistant instructors in all areas of training.

Requirements: Haircuts are required. Proper courtesies will be displayed.



COLLEGIATE PROGRAMS OF INTEREST

Rosetta Stone Language Courses

Beginning in 2013, Collegiate Academy will be offering ½ credit elective (not World Language) credits for courses taken using the Rosetta Stone program. These courses will be taken online using the Rosetta Stone software with a classroom teacher as a guide. Students will work at their own pace, but may accelerate to take additional credits and languages as they are able.

These courses may not take place of any portion of the three required credits of World Language needed for graduation (Latin, Spanish, Mandarin or German), but are meant to add additional experience and electives for those students who are interested in other languages. The available courses and their numbers are listed below.

1988a	ARABIC I H (R)	H	Language	.5
1988b	ARABIC II H (R)	H	Language	.5
1988c	ARABIC III H (R)	H	Language	.5
1988d	ARABIC IV H (R)	H	Language	.5
1988e	ARABIC V H (R)	H	Language	.5
1989a	JAPANESE I H (R)	H	Language	.5
1989b	JAPANESE II H (R)	H	Language	.5
1989c	JAPANESE III H (R)	H	Language	.5
1989d	JAPANESE IV H (R)	H	Language	.5
1989e	JAPANESE V H (R)	H	Language	.5
1990a	FRENCH I H (R)	H	Language	.5
1990b	FRENCH II H (R)	H	Language	.5
1990c	FRENCH III H (R)	H	Language	.5
1990d	FRENCH IV H (R)	H	Language	.5
1990e	FRENCH V H (R)	H	Language	.5
1991a	RUSSIAN I H (R)	H	Language	.5
1991b	RUSSIAN II H (R)	H	Language	.5
1991c	RUSSIAN III H (R)	H	Language	.5
1991d	RUSSIAN IV H (R)	H	Language	.5
1991e	RUSSIAN V H (R)	H	Language	.5
1992a	ITALIAN I H (R)	H	Language	.5
1992b	ITALIAN II H (R)	H	Language	.5
1992c	ITALIAN III H (R)	H	Language	.5
1992d	ITALIAN IV H (R)	H	Language	.5
1992e	ITALIAN V H (R)	H	Language	.5



The National Honor Society (NHS) is the nation's premier organization established to recognize outstanding high school students. More than just an honor roll, NHS serves to honor those students who have demonstrated excellence in the areas of Scholarship, Leadership, Service, and Character. These characteristics have been associated with membership in the organization since its beginnings in 1921.

The Northwest Pennsylvania Collegiate Academy chapter of the National Honor Society was granted its charter in 1999, and its members have been serving our school and greater community ever since. Each year in September, rising juniors who have a grade point average of at least 3.5 are invited to apply for membership. The application process includes demonstrating 25 hours of community service, obtaining two teacher recommendations and one coach recommendation (if applicable), and writing an essay on an experience related to scholarship, leadership, service, or character. **It is important to note that students should be acquiring service hours before their junior year because they need 25 hours to qualify for acceptance in October of that year.** A selection committee review applications and makes decisions about acceptance. In November juniors who are accepted are inducted into the NHS at a formal ceremony followed by a reception.

COMMUNITY SERVICE

Community Service Credit (Grades 9 – 12)

Description: Students at Collegiate Academy may earn 0.5 credit of documented community service, including a reflection piece with each completed activity. A maximum of one (1) credit may be earned in any one school year with one hundred twenty (120) documented service hours and appropriate Reflections for all hours submitted. Service Learning allows students the opportunity to “give something back” to the community in which they live while expanding their horizons beyond the world of school. *Please note that Community Service hours are credits to appear on the transcript only and do not take the place of class credits needed for graduation.*

Policies: Before performing a service in the community, students should get a copy of the community service form to be filled out by their site supervisor (an adult) and fill it out as soon as the activity is completed. The documentation of service hours must include a Reflection which focuses on the insights or benefits gained while participating in the service activity. Possibilities are very wide-ranging, from tutoring elementary students, to volunteering in a retirement home, or to coaching younger children in a sport. If a student is unaware whether or not an activity may be credited for community service, he/she should meet with the Community Service faculty member before taking part in the activity.

Collegiate Academy Community Service Form

Northwest Pennsylvania Collegiate Academy

2825 State Street

Erie, Pennsylvania 16508

(814) 874-6300

Fax: (814) 874-6307

Name: _____ Homeroom _____ Grade: _____

Agency/Institution

Where Service Performed: _____

Type of Service Performed: _____

Date(s) and Hour (s) of Service Performed: _____

(Signature of Site Supervisor)

(Title)

(Date)

A student "reflection" must accompany all community service hours. This reflection is your personal response to what you have learned in performing the service and how you feel about the service you have performed. The reflection should be no longer than a page and should be attached to this form.

SCHOOL DISTRICT OF THE CITY OF ERIE, PENNSYLVANIA

Dr. Jay Badams
Superintendent of Schools

Board of School Directors

John C. Harkins
President

Frank Petrunger, Jr.
Vice President

Linda Aleksandrowicz
Edward M. Brzezinski
Robert S. Casillo
Robbie Fabrizi
Angela McNair
Mary Frances Schenley
Thomas A. Spagel

Robin Smith
Board Secretary

Mrs. Nancy Sadaly
Assistant Superintendent of Schools