

## ERIE HIGH SCHOOL

CAREER PATHWAY & COURSE SELECTION GUIDE 2023 – 2024

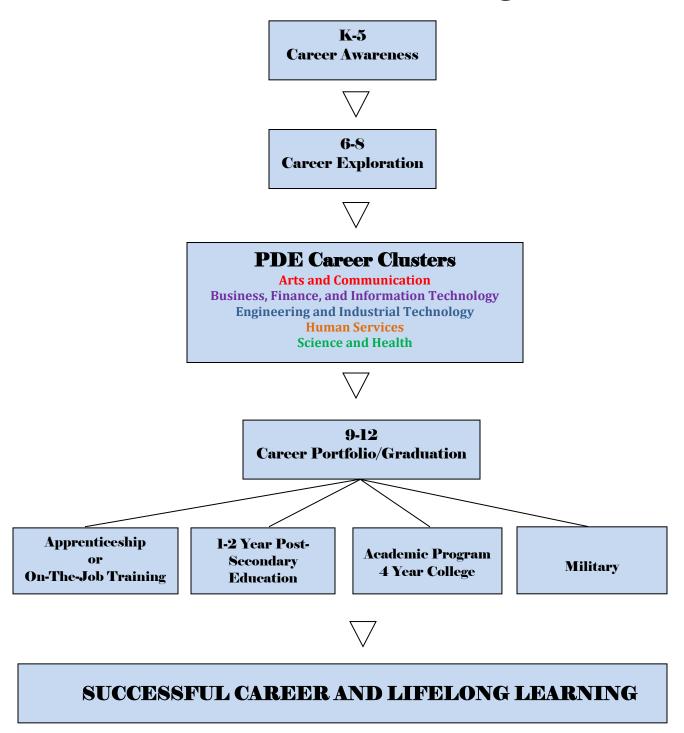
### Dear Student and Parent,

The Career & Scheduling Guide has been developed to assist with creating a well-balanced schedule for the next school year based on the student's individual four-year plan. In creating or revising your fouryear plan and schedule, the following may be helpful or necessary to consider:

- Individual educational goals
- Career interests
- Course grades
- Course credits
- Student performance in prior years
- Course requirements and prerequisites
- Teacher/Counselor recommendations
- Keystone scores
- Standardized assessment results
- District assessment results
- Graduation requirements

A well thought out academic plan will have a positive impact on your future. Please carefully consider your options and talk to your teachers and guidance counselors as you begin to plan your course selections. While this document was meant to be as useful as possible, we understand that it may not cover all circumstances for a student. If you have any questions about your scheduling choices, please make an appointment with your counselor.

## **K-12 Career Planning**



## **Your Pathway Planner**

Use this guide to develop a career goal and academic plan.

### What are Career Pathways?

Each pathway is a broad grouping of careers that share similar characteristics and whose employment requirements call for many common interests, strengths, and competencies. A chosen Pathway focuses on a student's elective courses toward preparing for a specific goal area. Career pathways provide opportunities for students to explore similarly grouped career options. They also serve as an organizing tool for schools to help focus curriculum and bring relevance into the classroom.

### Why should I choose a career pathway?

- Help focus on a career area that matches interests
- Help set goals and align classes necessary to achieve those goals
- Create career awareness
- Encourage planning for workforce or postsecondary education opportunities
- Provide knowledge that relates the high school experience to the word after graduation

### How do I choose a career pathway?

- Research various career fields in middle school
- Take a Career Explorations course in tenth grade to help guide your decision-making process
- Your counselors, parents and teachers will assist you
- Utilize various software tools to explore and research various careers



YOUR FUTURE...YOUR CHOICE!

## The 5 Career Pathways

### **Arts and Communications (AC)**

Careers in the Arts, Audio-Video Technology and Communications involve designing, producing, exhibiting, performing, writing, and publishing multimedia content including visual and performing arts and design, journalism, and entertainment services. Career cluster areas:

- Audio and Video Technology and Film
- Printing Technology and Graphic Communication Technology
- Visual Arts
- Performing Arts
- Journalism and Broadcasting
- Telecommunications

### **Business, Finance, and Information Technology (BFIT)**

Business management and administration careers encompass planning, organization, directing, and evaluating business functions essential to efficient and productive business operations. Career cluster areas:

- Marketing, Sales, and Service
- Finance
- Business Management
- Information Technology

### **Engineering and Industrial Technology (EIT)**

This career pathway is designed to cultivate students' interest, awareness, and application to areas related to technologies necessary to design, develop, install, or maintain physical systems. Career cluster areas:

- Architecture and Construction
- Manufacturing
- Engineering and Engineering Technology
- Transportation, Distribution, and Logistics

### **Human Services (HS)**

This career pathway is designed to cultivate students' interests, skills, and experience for employment in careers related to families and human needs. Career cluster areas:

- Counseling and Personal Care
- Education
- Law, Public Safety, and Government
- Hospitality and Tourism

### **Science and Health (SH)**

This career pathway is designed to cultivate students' interest in physical, life, and behavioral sciences. Additionally, careers focus on planning, managing, and providing therapeutic and diagnostic services, health information, and biochemistry research development. Career cluster areas:

- Health Science
- Agriculture, Food, and Natural Resources
- Science, Technology, and Math

## **Arts and Communications (AC) Pathway**

This Pathway is designed to cultivate students' awareness, interpretation, application, and production of visual, verbal, and written work.

Are you interested in	Can you	Do you enjoy
News reporting and writing	• Sing	Writing
Interviewing and reviewing	Play an instrument	<ul> <li>Making videos</li> </ul>
Multi-media productions	Be creative	Working with film props
• Acting	• Act	Seeking creative ideas
Radio, TV, Film, Video	Articulate clearly	Working with sound effects
Performing in a band or chorus	Write and conduct interviews	• Performing in front of an
Attending concerts	Meet deadlines	audience
Drawing, painting	• Sell	Working with computers
Artwork	• Draw	
	Sculpt	

If you answered "yes" to several of these questions, you might consider a future in one of the sample occupations listed below.

Entry	Technical/Skilled	Professional (4+ college)
Model	Actor	Art or music teacher
Radio operator	<ul> <li>Illustrator</li> </ul>	<ul> <li>Cinematographer</li> </ul>
Stage hand	<ul> <li>Choreographer</li> </ul>	• Composer
Stunt performer	• Dancer	• Film editor
Announcer	Disc jockey	Multimedia artist
Dancer	Musician	Music critic
Film loader	• Animator	Music director
Photographer	• Artist	<ul> <li>News broadcaster</li> </ul>
Floral designer	Broadway technician	<ul> <li>Producer and director</li> </ul>
Florist	<ul> <li>Fashion designer</li> </ul>	• Editor
Sound technician	• Jeweler	• Curator
TV, Video, and movies	Makeup artist	<ul> <li>Advertising creator</li> </ul>
Desktop publisher	Recording Engineer	Art director
Copy person	Video manager	• Interior designer
Newsroom worker	Computer graphic artist	<ul> <li>Fashion designer</li> </ul>
	Web designer	Industrial designer
	Desktop publisher	Copy writer
		News writer
		<ul> <li>Telecommunications</li> </ul>
		Writer

# Business, Finance, and Information Technology (BFIT) Pathway

This Pathway is designed to prepare students for the world of business, finance, and information services.

	Are you interested in	Can you	Do you enjoy
•	A business environment	Work easily with others	Meeting with groups
•	Office management	Organize your time	<ul> <li>Making budgets</li> </ul>
•	Sales	<ul> <li>Work with statistics</li> </ul>	<ul> <li>Organizing a project</li> </ul>
•	Computers and technology	<ul> <li>Use computers and other</li> </ul>	<ul> <li>Planning an event</li> </ul>
•	Presentations to groups	technology	<ul> <li>Working with technology</li> </ul>
•	Telecommunications	<ul> <li>Pay attention to details</li> </ul>	<ul> <li>Selling products and services</li> </ul>
•	Advertising	<ul> <li>Solve problems</li> </ul>	<ul> <li>Processing numbers</li> </ul>
•	Different work sites	<ul> <li>Work independently</li> </ul>	<ul> <li>Preparing financial reports</li> </ul>
•	Record keeping	Show initiative	<ul> <li>Following directions</li> </ul>
		Work on a team	• Learning new software programs

If you answered "yes" to several of these questions, you might consider a future in one of the sample occupations listed below.

	Entry		Technical/Skilled		Professional (4+ college)
•	Customer service	•	Computer salesperson	•	Marketing manager
•	Representative	•	Graph designer	•	Certified public accountant
•	Shipping and receiving clerk	•	Retail technician	•	Economist
,	Telemarketer	•	Bank collection officer	•	Financial manager
	Advertising sales agent	•	Claims adjuster	•	E-Commerce analyst
	Bank teller	•	Legal secretary	•	Securities sales representative
	Cashier	•	Tax preparer	•	Systems software engineer
	Payroll clerk	•	Paralegal	•	Systems analysis
	Title searcher	•	Computer support specialist	•	Hospital administrator
	Computer operator	•	Software engineer	•	Human resources
	Accounts payable manager	•	Computer programmer	•	Manager
	Administrative assistant	•	Production support analyst	•	Chief executive officer
	Data entry	•	Desktop publisher	•	Manufacturing sales
	Retail sales clerk	•	Medial secretary	•	Representative
	Secretary	•	Real estate agent	•	Business analysts
	Account executive	•	Restaurant manager	•	Project manager
		•	Sales representative	•	Sports and entertainment agent
			•	•	Actuary

# **Engineering and Industrial Technology (EIT) Pathway**

This Pathway is designed to cultivate students' interest, awareness, and application of careers related to technologies necessary to design, develop, install, and maintain physical systems.

Are you interested in	Can you	Do you enjoy
<ul> <li>Building and construction</li> <li>Tools, equipment and materials</li> <li>Woodworking</li> <li>Math and science classes</li> <li>Fitness and sports</li> <li>Precision work</li> <li>Design and architecture</li> <li>Engineering</li> <li>Computer technology</li> <li>Production management</li> <li>How things work</li> </ul>	<ul> <li>Apply science and math to the real world</li> <li>Read and understand directions</li> <li>Solve problems</li> <li>Understand and read maps</li> <li>Organize reports and people</li> <li>See a task through to completion</li> <li>Use a computer</li> </ul>	<ul> <li>Travel</li> <li>Working with your hands</li> <li>Designing/working with projects, models, and prototypes</li> <li>Working in a lab</li> <li>Working on a team</li> <li>Operating tools and equipment</li> <li>Paying close attention to detail</li> </ul>

If you answered "yes" to several of these questions, you might consider a future in one of the sample occupations listed below.

	Entry		Technical/Skilled		Professional (4+ college)
•	Carpet installer	•	Grader and dozer operator	•	Construction manager
•	Drywall worker	•	Electrical technician	•	Cost estimator
•	Roofer	•	Metal engineering technician	•	Industrial production manager
•	Machine operator	•	Supervisor	•	Purchasing agent
•	Baggage handler	•	Welder	•	Astronaut
•	Dock worker	•	Civil engineering technician	•	Nuclear engineer
•	Freight handler	•	Robotics technician	•	Petroleum engineer
•	Laborer	•	CAD/CAM technician	•	NASA scientist
•	Warehouse worker	•	Auto mechanic	•	Technical writer
•	Sailor/Marine Oiler	•	Air traffic controller	•	Architect
		•	Auto body repair	•	Civil engineering
	Apprenticeships	•	Bus driver	•	Industrial engineering
•	Brick mason	•	Diesel mechanic	•	Mechanical engineering
•	Carpenter	•	Dispatch	•	Aeronautical engineer
•	Electrician	•	Motorcycle mechanic	•	Aerospace engineer
•	HVAC	•	Taxi driver	•	Airline pilot
•	Plumber	•	Truck driver	•	Transportation engineer
•	Machinist	•	Truck terminal manager	•	Navigator
•	Surveyor	•	Production and operating worker	•	Deck and engine ship officer
•	Diesel Mechanic				

## **Human Services (HS) Pathway**

This Pathway is designed to cultivate students' interests, skills, and experiences for employment in careers related to family and human needs.

	Are you interested in		Can you		Do you enjoy
•	Working with people	•	Organize well	•	Communication services
•	Owning your own business	•	Plan and direct programs	•	Helping and protecting others
•	Aging adults	•	Be creative	•	Working with people
•	Child development	•	Communicate well	•	Counseling and advising people
•	Family and social services	•	Assume leadership roles	•	Serving other's needs
•	Food preparation	•	Work with a team	•	Interviewing people
•	Teaching	•	Be conscientious and dependable	•	Selling products or services
•	Counseling	•	Plan budgets	•	Handling customer complaints
				•	Human problems

If you answered "yes" to several of these questions, you might consider a future in one of the sample occupations listed below.

	Entry		Technical/Skilled		Professional (4+ college)
•	Child care worker	•	Cosmetologist	•	Funeral director
•	Cosmetic representative	•	Fashion designer	•	Therapist
•	Dry cleaning operator	•	Manicurist	•	Counselor
•	Home health aide	•	Massage therapist	•	Professor
•	Library assistant	•	Mortician	•	Principal
•	Teacher's assistant	•	Truck driver	•	Teacher
•	Postal services worker	•	Personal trainer	•	Criminologist
•	Security guard	•	Teacher's aide	•	FBI agent
•	Utility worker	•	Firefighter	•	Lawyer
•	Aerobics instructor	•	Postmaster	•	Police officer
•	Waitress	•	Police officer	•	Park ranger
•	Baker	•	Flight attendant	•	Executive chef
•	Travel agent	•	Chef	•	Food services manager
	5			•	Hotel/motel management

## Science and Health (SH) Pathway

This Pathway is designed to cultivate students' interests in physical, life, and behavioral sciences. Additionally, careers focus on planning, managing, and producing therapeutic and diagnostic services, health information, and biochemistry research and development. Many of the careers involved with the food, fiber, environmental and natural resource systems fall under this pathway.

Are you interested in	Can yo	u	Do you enjoy
<ul> <li>Health care environment</li> <li>Science and medicine</li> <li>Medial research</li> <li>Food production</li> <li>Environment and conse</li> <li>Pharmacy</li> <li>Animals</li> <li>Physical therapy</li> <li>Sports and fitness</li> <li>Information systems</li> <li>Radiology</li> </ul>	<ul> <li>Use a computer at</li> <li>Work in a lab sett facility</li> <li>Apply scientific the problems</li> </ul>	nd technology ing or medical neory to real life ound animals and ze data from	Diagnosing and caring for sick animals Working outdoors with wildlife Working on cutting edge scientific research Working on a team Medical lab research Making a contribution to society Working with numbers Developing conclusions from a database

If you answered "yes" to several of these questions, you might consider a future in one of the sample occupations listed below.

	Entry		Technical/Skilled		Professional (4+ college)
•	Hospital worker	•	Certified nursing assistant	•	Athletic trainer
•	Patient care technician	•	Dental hygienist	•	Speech/Language pathologist
•	Dialysis technician	•	Emergency medical technician	•	Dietician
•	EEG technician	•	Licensed practice nurse	•	Physician assistant
•	Home health aide	•	Medical lab technician	•	Medical examiner
•	Nurse's aide, orderlies	•	Personal trainer	•	Pharmacist
•	Pharmacy technician	•	Radiological technician	•	Physician
•	Physical therapy aide	•	Respiratory therapist	•	Registered nurse
•	Animal caretaker	•	Dental lab technician	•	Marine biologist
•	Breeder	•	Fish and game worker	•	Soil conversationalist
•	Extension service worker	•	Forest conversationalist	•	Veterinarian
•	Wildlife reserve worker	•	GPS technician	•	Chemist
•	Optician	•	Surveyor	•	Environmental scientist
•	Data Entry	•	Veterinary Technician	•	Zoologist
•	Farmer			•	Nuclear engineer

## **Graduation Requirements**

Students have the opportunity to earn 32 credits while in high school. In order to graduate, students must earn:

Language Arts 4.0 credits

Mathematics 4.0 credits

Science 4.0 credits

Social Studies 4.0 credits

Wellness 1.5 credits

Electives 8.5 credits

The high school builds its master schedule based on student course requests; the master schedule is then used to determine staffing needs for the school year. Only schedules that require correction due to inaccurate information or a verified schedule conflict will be changed.

Beginning with the class of 2023, a Proficient or Advanced score on all three Keystone exams (Algebra I, Biology, and Literature) is a graduation requirement.

## Advanced Placement<sup>TM</sup> Program

College Board administers 38 Advanced Placement<sup>TM</sup> (AP) courses and exams across twenty subject areas. 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:

- o Provide a head start on college-level work.
- o Improve writing skills and sharpen problem-solving techniques.
- O Develop the study habits necessary for tackling rigorous course work.
- o Demonstrate maturity and readiness for college.
- O Show willingness of students to push themselves academically.
- o Emphasize commitment to academic excellence.
- o Explore the world from a variety of perspectives.
- o 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 dedicated, AP trained teachers who lay the groundwork for student success on the exams.

For answers to frequently asked questions regarding the Advanced Placement<sup>TM</sup> Program, please visit http://www.collegeboard.org

<sup>TM</sup>Advanced Placement Program is a registered trademark of College Board.

## **High School Dual Enrollment**

Erie High School has a partnership with local colleges whereby junior and senior students have the opportunity to take college courses for high school credit. Core college courses are weighted as Advanced Placement courses; elective college courses receive Honors weight. College courses and grades appear on the student's report card/transcript along with the grades earned in Erie High School 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 Erie High School course offerings and are completely optional. The colleges offer them at a greatly reduced cost, 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 Erie High School classes around college courses, students assume responsibility for making up Erie High School 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 AP courses, enhance a student's chances of admission at highly select colleges, and prepares them for college level rigor.

Please note that every college has its own policy for accepting 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 on the individual college websites.

Any student scheduling a college course as a required high school course in language arts, math, science, and/or social studies must do so in the fall semester to ensure availability and avoid credit shortages that would endanger graduation. Students must also register for dual enrollment courses and go through the Erie High School guidance department in advance of the course start date. A student may not schedule dual enrollment courses in the middle of an Erie High School semester if the student is failing or doing poorly in a current Erie High School course. These courses are meant for enrichment of Erie High School curriculum. All dual enrollment courses must be approved by Erie High School administration or the guidance department.

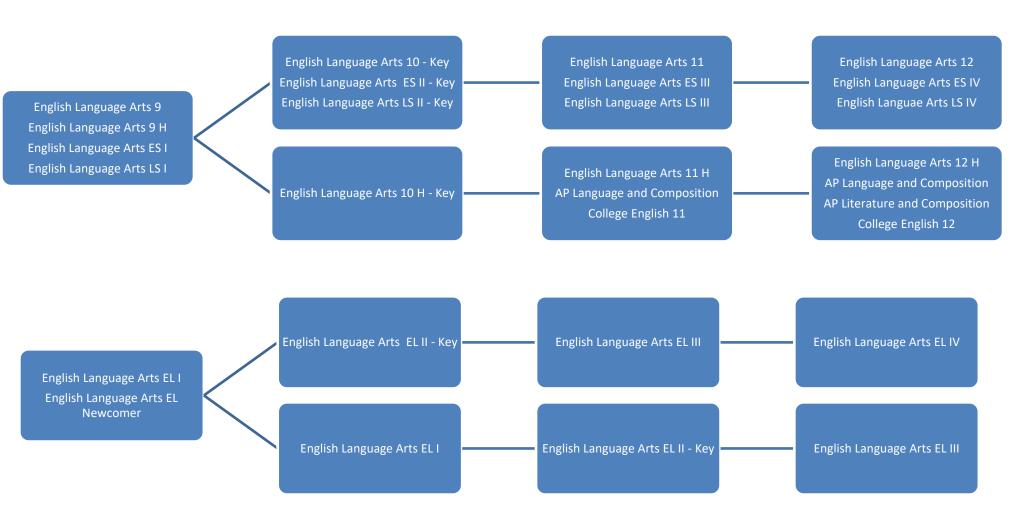
When students are scheduled for dual enrollment classes, they and their parent/guardian sign a contract agreeing to abide by all rules and policies of Erie High School and the college.

## **Student Athletes**

Student athletes who are interested in playing a sport in college will need to ensure that they meet the requirements of the National Collegiate Athletic Association (NCAA), including registering with the Eligibility Center. NCAA-approved courses at Erie High School are marked with an asterisk (\*) in this course guide.

Please speak with the athletics counselor and your coach for details about registering with the Eligibility Center, test and GPA requirements, and core course requirements. You can also visit <a href="www.ncaa.org">www.ncaa.org</a> for more details about the program.

## **English Language Arts**



### **ENGLISH LANGUAGE ARTS**

ENGLISH LANGUAGE ARTS 9 \* #1407 Grade: 9 (1 Credit)

Course Description: Develop the strong analytical skills necessary for success in later Language Arts and AP classes. Sharpen your writing skills by completing literary responses, argumentative essays, and informative writing. Become a stronger reader by studying short stories, poems, nonfiction, novels, and dramatic tragedies. Prepare for PSAT, SAT, and Keystone exams by improving your vocabulary and critical reading skills.

### ENGLISH LANGUAGE ARTS 9 H\* #1408 Grade: 9 (1 Credit)

Course Description: Build the skills necessary to become proficient in reading and writing. Prepare for the Keystone, PSAT, and SAT exams. Develop college level writing skills by practicing informative and argumentative writing. Read exciting literature across various media, including short stories, poems, nonfiction, novels, and Shakespearian and Greek tragedies. Develop strong analytic and critical thinking and reading skills with literary fiction and non-fiction, while developing new vocabulary and mastering essay writing. Successful completion of this course requires writing argumentative and informative essays using MLA style conventions.

### ENGLISH LANGUAGE ARTS 9 ES #1023 Grade: 9 (1 Credit)

Course Description: This course of study supports students with emotional disabilities to develop competence in reading and writing. In this class, students follow the general education English Language Arts 9 curriculum with modified assignments at a more individualized pace. These smaller classes provide more step-by-step instruction, in-class reading, development of concrete reading skills, and some independent reading. Students will practice organization and study skills, and become stronger readers by studying short stories, poems, nonfiction, novels, and dramatic tragedies. Prepare for PSAT, SAT, and Keystone exams by improving vocabulary and critical reading skills.

### ENGLISH LANGUAGE ARTS 9 LS #1093 Grade: 9 (1 Credit)

Course Description: This course of study supports students with learning disabilities to develop competence in reading and writing. In this class, students follow the general education English Language Arts 9 curriculum with modified assignments at a more individualized pace. These smaller classes provide more step-by-step instruction, in-class reading, development of concrete reading skills, and some independent reading. Students will practice organization and study skills,

and become a stronger reader by studying short stories, poems, nonfiction, novels, and dramatic tragedies. Prepare for PSAT, SAT, and Keystone exams by improving vocabulary and critical reading skills.

#### ENGLISH LANGUAGE ARTS EL NEWCOMER #1072 Grade: Placement based on WIDA score (1 Credit)

Course Description: Newcomer English provides extensive language instruction to students who have been in the United States less than one year and receive an English Language Proficiency Level 1 on the WIDA screener. Students will receive support for building their language and academic abilities to increase their mastery of content knowledge, analytical skills, and academic English fluency. Comprehension and speaking skills will be enhanced through peer collaboration and cooperative learning strategies.

## ENGLISH LANGUAGE ARTS ELI #1073 Grade: Placement based on WIDA score (1 Credit)

Course Description: Develop and increase English language development skills in reading, writing, speaking, and listening. Read and respond to adapted and grade-level texts to work on English language development and English Language Arts skills. Learn and practice foundational academic vocabulary and content area skills needed for the Keystone Exam. Prepare to be successful in a regular English Language Arts classroom.

### ENGLISH LANGUAGE ARTS 10\* #1507 Grade: 10 (1 Credit)

Course Description: Learn how to conduct research, read critically, and write in narrative, persuasive, and informational styles. Become an effective listener through audio media and oral presentations, and use technology as a resource. Learn to read, evaluate, and respond critically to works of literature. Read and analyze a variety of texts including short stories, poetry, drama, biographies, and autobiographies. Respond orally and in writing to the text you read. This course prepares student for the Keystone exam administered in May.

### ENGLISH LANGUAGE ARTS 10 H\* #1508 Grade: 10 (1 Credit)

Course Description: Read and respond to novels, short stories, poetry, essays, and drama. Continue to develop your critical thinking, reading, and writing skills. Expand ability to respond meaningfully to literature through interpretation and analysis. Write in a variety of modes, including narrative, expository, and argumentative. Study college-level vocabulary and develop PSAT, SAT, and Keystone Exam skills. This course prepares students for the Keystone exam administered in May.

ENGLISH LANGUAGE ARTS 10 ES #1025 Grade: 10 (1 Credit)

Course Description: This course of study supports students with emotional disabilities to develop competence in reading and writing. Students follow the general education English 10 curriculum with modified assignments at a more individualized pace. These smaller classes provide more step-by-step instruction, in-class reading, development of concrete reading skills, and some independent reading. Students learn how to conduct research, read to make sense of various texts, and write in narrative, persuasive, and informational styles for a variety of purposes. Learn to comprehend, evaluate, and respond critically to works of literature. Read and analyze a variety of texts including short stories, poetry, drama, biographies, and autobiographies. Respond orally and in writing to the texts.

### ENGLISH LANGUAGE ARTS 10 LS #1095 Grade: 10 (1 Credit)

Course Description: This course of study supports students with learning disabilities to develop competence in reading and writing. Students follow the general education English 10 curriculum with modified assignments at a more individualized pace. Students learn how to conduct research, read to make sense of various texts, and write in narrative, persuasive, and informational styles for a variety of purposes. Become an effective listener through audio media and oral presentations, and use technology as a resource. Students learn to effectively collaborate and comprehend, evaluate, and respond critically to works of literature. Students will read and analyze a variety of texts including short stories, poetry, drama, biographies, and autobiographies and respond to texts orally and in writing.

### ENGLISH LANGUAGE ARTS EL II #1075 Grade: Placement based on WIDA score (1 Credit)

Course Description: This course is designed to provide adaptations to students with limited English proficiency learn to conduct research, read to make sense of various texts, and write in narrative, persuasive, and informational styles for a variety of purposes. Students develop listening skills through audio media and oral presentations, and use technology as a resource. Students learn effectively collaborate and comprehend, evaluate, and respond critically to works of literature. Students will read and analyze a variety of texts including short stories, poetry, drama, biographies, and autobiographies and respond to texts orally and in writing. Texts, lessons, and assignments will be modified and adapted specifically for EL students based on age, grade, WIDA score, and English language proficiency.

CORE READING #5113 Grade: 10 (.5 Credit)

Course Description: This class uses interactive workbooks that provide instruction in reading comprehension, vocabulary, spelling, writing, and grammar. A software program with high-interest video segments, customized reading instruction, and individualized support is used to address each student's needs. Students build reading comprehension skills through modeled and independent reading of selected age-appropriate, high-interest Lexile-leveled passages, paperback books, and audio books. This is a required course for all students taking the Literature Keystone Exam.

### ENGLISH LANGUAGE ARTS 11\* #1607 Grade: 11 (1 Credit)

Course Description: Develop understanding of the analysis of literary genres such as poetry, essays, drama, short stories, and novels. Refine skills in grammar, vocabulary, and effective written and oral communication. Complete research using traditional and electronic resources. This course prepares students for standardized tests, including SAT, ACT, and ASVAAB.

### ENGLISH LANGUAGE ARTS 11 H\* #1608 Grade: 11 (1 Credit)

Course Description: Study various short stories, poetry, essays, and plays. Engage in college-level thinking, discussions, writing, and research. Develop analytical skills, evaluate literary criticism, and further understanding of literary devices in order to respond critically to literature. Hone vocabulary and other skills needed for SAT and ACT exams. Successful completion of this course requires writing a fully-documented research paper on a selected literary work.

### ENGLISH LANGUAGE ARTS 11 ES #1027 Grade: 11 (1 Credit)

Course Description: Designed to support students with emotional disabilities, this course studies various short stories, poetry, essays, and plays. The course engages the student in evaluation, discussions, writing, and research. Students develop analytical skills, evaluate literary criticism, and further understanding of literary devices in order to respond critically to the literature read. Students follow the general education English 11 curriculum with modified assignments at a more individualized pace. These smaller classes provide more step-by-step instruction, in-class reading, development of concrete reading skills, and some independent reading. Students are provided a variety of opportunities to expand their vocabulary and refine their overall communication skills.

ENGLISH LANGUAGE ARTS 11 LS #1097 Grade: 11 (1 Credit)

Course Description: Designed to support students with learning disabilities develop understanding of the analysis of literary genres such as poetry, essays, drama, short stories, and novels. Refine skills in grammar, vocabulary, and effective written and oral communication. Complete research using traditional and electronic resources. Students follow the general education English 11 curriculum with modified assignments at a more individualized pace. These smaller classes provide more step-by-step instruction, in-class reading, development of concrete reading skills, and some independent reading. Students are provided a variety of opportunities to expand their vocabulary and refine their overall communication skills.

ENGLISH LANGUAGE ARTS EL III #1077 Grade: Placement based on WIDA score (1 Credit)

Course Description: This course is designed to provide adaptations to students with limited English proficiency develop understanding of the analysis of literary genres such as poetry, essays, drama, short stories, and novels. Refine skills in grammar, vocabulary, and effective written and oral communication. Complete research using traditional and electronic resources.

ENGLISH LANGUAGE ARTS 12\* #1707 Grade: 12 (1 Credit)

Course Description: Improve reading and writing abilities and develop independent thinking. Broaden knowledge of and analyze British and relevant world literature. Utilize MLA format for writing assignments in both research and critical analysis. Practice testing skills and vocabulary skills for post-graduation success. Complete writing assignments to demonstrate satisfactory literary analysis and vocabulary development.

ENGLISH LANGUAGE ARTS 12 H\* #1708 Grade: 12 (1 Credit)

Course Description: This British Literature course requires a teacher recommendation in order to enroll. The overall objective of this course is to prepare students for college and career. It is designed to provide an integrated language arts program of study in reading, writing, speaking, and listening as set forth by the Common Core State Standards for English language arts. Students will use a variety of strategies to refine their critical and analytical reading and writing skills while exploring British literary genres. This includes, but is not limited to, prose, poetry, drama, short stories, and a novel. MLA formatting will be utilized for analytical review of literature and multi-paragraph informational pieces.

ENGLISH LANGUAGE ARTS 12 ES #1029 Grade: 12 (1 Credit)

Course Description: Designed to support students with emotional disabilities, this course will improve reading and writing abilities and develop independent thinking. Broaden knowledge of and analyze British and relevant world literature. Students follow the general education English 12 curriculum with modified assignments at a more individualized pace. These smaller classes provide more step-by-step instruction, in-class reading, development of concrete reading skills, and some independent reading. Students will complete writing assignments to demonstrate satisfactory literary analysis and vocabulary development.

ENGLISH LANGUAGE ARTS IV LS #1099 Grade: 12 (1 Credit)

Course Description: Designed to support students with learning disabilities, this course will improve reading and writing abilities and develop independent thinking. Broaden knowledge of and analyze British and relevant world literature. Utilize MLA format for writing assignments in both research and critical analysis. Practice testing skills and vocabulary skills for post-graduation success. Complete writing assignments to demonstrate satisfactory literary analysis and vocabulary development.

ENGLISH LANGUAGE ARTS EL IV #1079 Grade: Placement based on WIDA score (1 Credit)

**Prerequisite:** Must have a composite score of 3.0 or higher on the WIDA Test.

Course Description: Improve reading and writing abilities and develop independent thinking. Broaden knowledge of and analyze British and relevant world literature. Utilize MLA format for writing assignments in both research and critical analysis. Practice testing skills and vocabulary skills for post-graduation success. Complete writing assignments to demonstrate satisfactory literary analysis and vocabulary development.

ADVANCED PLACEMENT LANGUAGE AND COMPOSITION\* #1612 Grades: 11, 12 (1 Credit)

Course Description: Prepare for the Advanced Placement Language and Composition test, administered in May. Work at a college level to prepare for the challenges of post-secondary education. Learn about the rhetoric of nonfiction and literature. Develop as a writer by integrating skills learned from the writing of master authors into your own writing. Read classic American texts and study advanced vocabulary that will contribute to success on the AP, SAT, and ACT tests. A research paper is required for successful completion of this class.

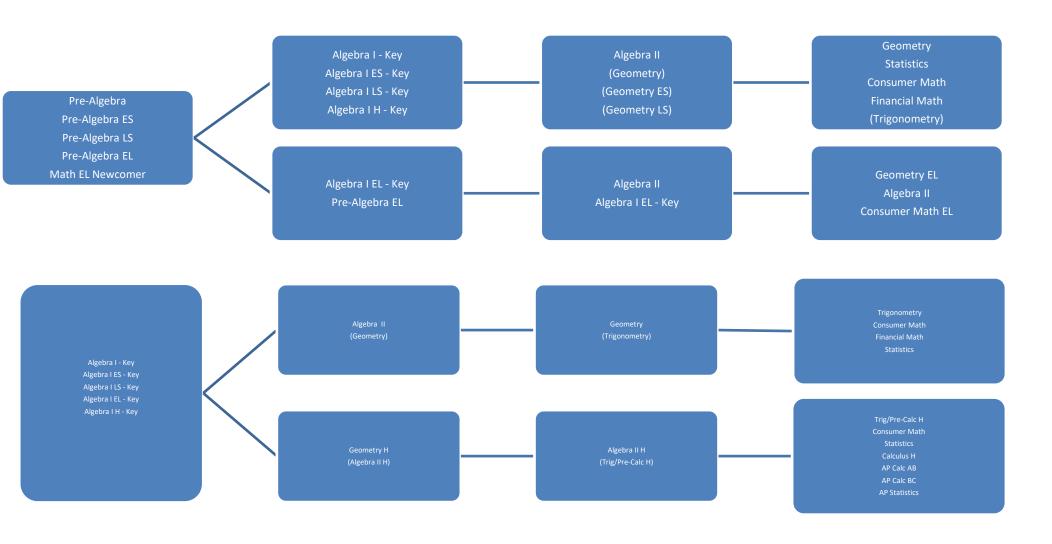
## (CA) ADVANCED PLACEMENT LITERATURE AND COMPOSITION #1710 Grades: 11, 12 (1 Credit)

**Prerequisite:** Successful completion of AP English Language and Composition and a commitment to the careful reading and critical analysis of literature.

**Required Summer Reading:** All students taking AP Literature must complete the summer reading assignment before the first day of school. The assignment can be found on the Collegiate Academy website.

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 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.

## **Mathematics**



<sup>\*</sup>Students may take Geometry and Algebra II simultaneously to advance in mathematics courses.

### **MATHEMATICS**

PRE-ALGEBRA #3221 Grade: 9 (1 Credit)

Course Description: Build the skills necessary to continue middle school mathematics into Algebra I. Learn basic mathematics skills including equation solving, scientific notation, and important topics necessary for the introduction of high school math. Content in this course will be tested on the Keystone Exam.

PRE-ALGEBRA ES #3023 Grade: 9 (1 Credit)

Course Description: This course is designed for students with emotional disabilities and tailors content to meet individual needs. Build the skills necessary to continue middle school mathematics into Algebra I. Learn basic mathematics skills including equation solving, scientific notation, and important topics necessary for the introduction of high school math. Content in this course will be tested on the Keystone Exam.

PRE-ALGEBRA LS #3093 Grade: 9 (1 Credit)

Course Description: This course is designed for students with learning disabilities and tailors content to meet individual needs. Build the skills necessary to continue middle school mathematics into Algebra I. Learn basic mathematics skills including equation solving, scientific notation, and important topics necessary for the introduction of high school math. Content in this course will be tested on the Keystone Exam.

MATH EL NEWCOMER #3072 Grade: Placement based on WIDA score (1 Credit)

Course Description: This course is designed to provide adaptations to students with limited English proficiency to build the skills necessary to continue middle school mathematics into Algebra I. Learn basic mathematics skills including equation solving, scientific notation, and important topics necessary for the introduction of high school math. Content in this course will be tested on the Keystone Exam.

PRE-ALGEBRA EL #3076 Grade: Placement based on WIDA score (1 Credit)

Course Description: This course is designed to provide adaptations to students with limited English proficiency to build the skills necessary to continue middle school mathematics into Algebra I. Learn basic mathematics skills including equation solving, scientific notation, and important topics necessary for the introduction of high school math. Content in this course will be tested on the Keystone Exam.

ALGEBRA I – KEY\* #3401 Grades: 9, 10 (1 Credit)

**Prerequisite:** 75% or better in 8th grade math or Pre-Algebra **Course Description:** Learning includes relationships between quantities and reasoning with equations, linear and exponential relationships, descriptive statistics, and expressions and equations. Real world applications are presented within the course content as well as rigorous preparation for the Algebra I Keystone Exam taken at the conclusion of the course.

ALGEBRA I H – KEY\* #3402 Grades: 9, 10 (1 credit)

Prerequisite: 85% or better in 8th grade H or Pre-Algebra

Course Description: Build the skills necessary for high school mathematics courses. Develop the abilities to make the jump from the concrete to the abstract study of mathematics. Learning includes relationships between quantities and reasoning with equations, linear and exponential relationships, descriptive statistics, and expressions and equations. Real world applications are presented within the course content as well as rigorous preparation for the Algebra I Keystone Exam taken at the conclusion of the course. This course prepares students for higher level mathematics courses.

ALGEBRA I ES – KEY #3025 Grades: 9, 10 (1 Credit)

Prerequisite: 75% or better in 8th grade math

Course Description: This course is designed for students with emotional disabilities and tailors content to meet individual needs. Build the skills necessary for high school mathematics courses. Develop the abilities to make the jump from the concrete to the abstract study of mathematics. Learning includes relationships between quantities and reasoning with equations, linear and exponential relationships, descriptive statistics, expressions and equations, and quadratic functions and modeling. Real world applications are presented within the course content as well as rigorous preparation for the Algebra I Keystone Exam taken at the conclusion of the course.

ALGEBRA I LS – KEY #3095 Grades: 9, 10 (1 Credit)

Prerequisite: 75% or better in 8th grade math

Course Description: This course is designed for students with learning disabilities and tailors content to meet individual needs. Build the skills necessary for high school mathematics courses. Develop the abilities to make the jump from the concrete to the abstract study of mathematics. Learning includes relationships between quantities and reasoning with equations, linear and exponential relationships, descriptive statistics, expressions and equations, and quadratic functions and modeling. Real world applications are presented within the course content as well as rigorous preparation for the Algebra I Keystone Exam taken at the conclusion of the course.

ALGEBRA I EL – KEY #3077 Grades: 9, 10 (1 Credit)

Prerequisite: 75% or better in 8th grade math

Course Description: This course is designed to provide adaptations to students with limited English proficiency to build the skills necessary for high school mathematics courses. Learning includes relationships between quantities and reasoning with equations, linear and exponential relationships, descriptive statistics, expressions and equations, and quadratic functions and modeling. Real world applications are presented within the course content as well as rigorous preparation for the Algebra I Keystone Exam taken at the conclusion of the course.

ACADEMIC MATH #3901 Grades: 9, 10 (.5 Credit)

Course Description: Use interactive workbooks and software to develop mastery of algebraic concepts. Artificial intelligence and open-response questioning identify precisely what each student knows. Students receive detailed progress monitoring on mastery to guide lessons. This is a required course for all students taking the Algebra Keystone Exam.

GEOMETRY\* #3501 Grades: 10, 11, 12 (1 Credit)

Prerequisite: Algebra 1

Course Description: Develop basic geometric concepts dealing with lines, angles, triangles, polygons, circles, and solid geometric figures. Building a vocabulary of geometry and its symbols to write logical proofs is essential.

Applications of algebraic and computational skills are used throughout the course. Successful completion of Geometry is required to continue in the mathematics course sequence.

GEOMETRY H\* #3502 Grades: 9, 10, 11 (1 Credit)

*Prerequisite:* 85% or above in Algebra I H or 90% or above in Algebra I & teacher recommendation.

Course Description: Develop geometric concepts dealing with lines, angles, triangles, polygons, circles, and solid geometric figures. Building a vocabulary of geometry and its symbols to write logical proofs is essential. Applications of algebraic and computational skills are used throughout the course. Rigorous development of concepts prepares students to continue in higher level mathematics courses.

GEOMETRY ES #3027 Grades: 10, 11, 12 (1 Credit)

Prerequisite: Algebra I

Course Description: This course is designed for students with emotional disabilities and tailors content to meet individual needs. Develop basic geometric concepts dealing with lines, angles, triangles, polygons, circles and solid geometric figures. Build a vocabulary of geometric terms and symbols. Use reasoning to arrive at logical conclusions. Applications of algebraic and computational skills are used throughout the course. Successful completion of Geometry is required to continue in the mathematics course sequence.

GEOMETRY LS #3097

Grades: 10, 11, 12 (1 Credit)

Prerequisite: Algebra I

Course Description: This course is designed for students with learning disabilities and tailors content to meet individual needs. Develop basic geometric concepts dealing with lines, angles, triangles, polygons, circles and solid geometric figures. Build a vocabulary of geometric terms and symbols. Use reasoning to arrive at logical conclusions. Applications of algebraic and computational skills are used throughout the course. Successful completion of Geometry is required to continue in the mathematics course sequence.

GEOMETRY EL #3078 Grade: Placement based on WIDA score (1 Credit)

Prerequisite: Algebra I

Course Description: This course is designed to provide adaptations to students with limited English proficiency to develop basic geometric concepts dealing with lines, angles, triangles, polygons, circles, and solid geometric figures. Building a vocabulary of geometry and its symbols to write logical proofs is essential. Applications of algebraic and computational skills are used throughout the course. Successful completion of Geometry is required to continue in the mathematics course sequence.

ALGEBRA II\* #3601 Grades: 10, 11, 12 (1 Credit)

Prerequisites: Algebra I

**Course Description:** Build upon an in-depth application of Algebra 1 topics. Develop applications of quadratic equations and functions, polynomials and polynomial functions, radical functions, rational expressions, rational exponents, and imaginary numbers.

ALGEBRA II H\* #3602 Grades: 10, 11 (1 credit)

**Prerequisites:** Algebra I H or Algebra I with Teacher Recommendation

Course Description: Build knowledge of algebraic concepts and increase skills in algebraic computations. Develop applications of quadratic equations and functions, polynomials and polynomial functions, radical functions, rational expressions, rational exponents, and imaginary numbers. Get an introduction to probability and statistics. Utilize graphing calculators in preparation for standardized tests.

INTEGRATED MATH EL #3075 Grade: 12 (1 Credit)

**Prerequisite:** Algebra II and Geometry

Course Description: This course is designed to provide adaptations to students with limited English proficiency pursuing a non-mathematical or scientific field of study in post-secondary education. Topics include recognizing and developing patterns using tables, graphs and equations. Mathematical modeling is stressed as a methodology for approaching the solution to problems. Students will explore operations on algebraic expressions, and apply mathematical properties to algebraic equations. Reinforcement of topics from two-dimensional Geometry is integrated into this curriculum. Finally, introductory instruction in the area of mathematical probability is provided to reinforce use of fractions and numerical modeling.

(EHS) CONSUMER MATH #3721 Grade: 12 (1 Credit)

Course Description: This course is designed for students with vocational school, technical school, or associate-degree post-graduations goals. Students use algebraic concepts to explore credit, budgeting, loans, and compound interest. Students will also explore income taxes, sound financial decision making, and personal finance.

(EHS) FINANCIAL MATH\* #3911 Grades: 11, 12 (1 Credit)

Course Description: Financial Math is a mathematics course designed for the college-bound student. The course will examine mathematics, finance, and economics through the lens of financial literacy. Topics will include: goals and decision making, careers and income, radical functions and equations, logarithmic functions and equations, exponential functions and equations, compound interests, banking and investing tools, supply and demand, debt, and the economics of automobiles and housing. Students can expect to work with rigorous mathematics as well and graphical creation and analysis. The goal of the course will be to help students understand the principles and language of money and finance while learning how to make well-informed decisions regarding money.

TRIGONOMETRY\* #3803 Grades: 11, 12 (1 Credit)

**Prerequisite:** Algebra II and Geometry

*Course Description:* This course is designed for students pursuing a non-mathematical or scientific field of study in post-secondary education. Topics include right and oblique triangles, functions and graphs, identities, equations, formulas, laws, and applications – including vectors.

TRIGONOMETRY/PRE-CALCULUS H\* # 3806 Grades: 11, 12 # 306 (1 credit)

**Prerequisite:** 85% or above in Algebra II H and Geometry H or 93% or above in Algebra II and Geometry with teacher recommendation

Course Description: Develop the skills necessary to be successful in Calculus. Prepare to pursue a mathematical or scientific field of study in post-secondary education. Topics include linear relations and functions, right triangles, trigonometric functions including their graphs and inverses, identities, applications of trigonometry, oblique triangles, exponential and logarithmic functions, domain/range of higher order polynomials, and limits.

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

**Prerequisite:** Students can take AP Statistics while concurrently enrolled in Trigonometry/Pre-Calculus H

Course Description: This course is equivalent to an Introductory Statistics class at a University. Students are exposed to four broad conceptual themes: (1) Describing patterns and departures from patterns. (2) Sampling and Experimentation: Planning and conducting a study. (3) Anticipating Patterns: Exploring random phenomena using

probability and simulation. (4) Statistical Inference: Estimating population parameters and testing hypotheses.

(EHS) STATISTICS\* #3711 Grade: 12 (1 Credit)

Prerequisite: Algebra II

Course Description: Learn how data is generated and how to use that data to reach conclusions. Use graphs and distributions to model data and make predictions. Gather samples from the real world to draw appropriate conclusions. Design experiments to minimize bias and recognize when experiments are biased. Use probability, randomness, and simulation to make predictions, and analyze outcomes.

CALCULUS H\* #3706

Grade: 12 (1 Credit)

**Prerequisite:** 93% or higher in Trigonometry with teacher recommendation. 85% or higher in Trig/Pre-Calculus H

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.

AP CALCULUS AB\* #3702 Grade: 12 (1 credit)

Prerequisite: Trigonometry/Pre-Calculus H

Course Description: Provides willing and academically prepared students with the opportunity to earn college credit and/or advanced placement standing. Curriculum is equivalent to that of a first-semester college calculus course. AP Calculus AB is designed to develop mathematical knowledge conceptually, guiding students to connect topics and representations, to apply strategies and techniques to accurately solve diverse types of problems. Topics include differential and integral calculus. This course prepares students for the AP Exam, administered in May.

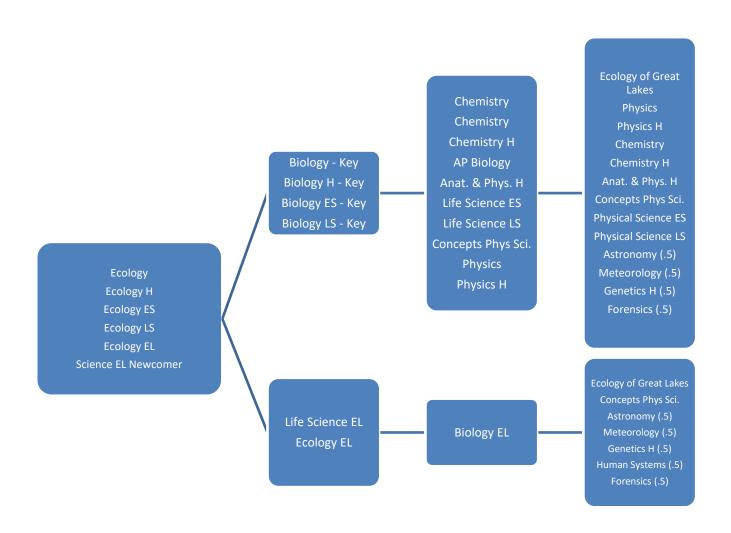
(CA) AP CALCULUS BC #3704 Grade: 11, 12 (1 credit)

Prerequisite: Trigonometry/Pre-Calculus H

Course Description: This course consists of the first two semesters of college calculus. The topics covered in this class include 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 extremely challenging and should be taken by the hardest-working mathematics students seeking a career in a mathematics, science, or engineering field.

## **Science**



### **SCIENCE**

ECOLOGY\* #4811 Grade: 9 (1 Credit)

Course Description: Study the complexity of the earth and its sustainability. Examine the world's natural processes and systems. Topics covered include biotic and abiotic components of our global environment, ecological relationships and changes, evolution of species, and the relationship between structure and function at all levels of organization among living things. Students taking this class will be meeting the Next Generation Science Standards performance expectations for Ecosystems: Interactions, Energy, and Dynamics whilst also preparing themselves for the Module B – Continuity and Unity of Life component of the Biology Keystone Exams.

ECOLOGY H\* #4812 Grade: 9 (1 Credit)

Course Description: Study the complexity of the earth and its sustainability. Examine the world's natural processes and social systems. Topics covered include biotic and abiotic components of our global environment, ecological relationships and changes, evolution of species, and the relationship between structure and function at all levels of organization among living things. Students taking this class will be meeting the Next Generation Science Standards performance expectations for Ecosystems: Interactions, Energy, and Dynamics whilst also preparing themselves for the Module B – Continuity and Unity of Life component of the Biology Keystone Exams.

ECOLOGY ES\* #4024 Grade: 9 (1 Credit)

Course Description: This course is designed for students with emotional disabilities and tailors content to meet individual needs. Study the complexity of the world we live in and its sustainability. Examine the world's natural processes and social systems. Topics covered include all biotic and abiotic components of our global environment, ecological relationships and changes, evolution of species, and the relationship between structure and function at all levels of organization among living things. Students taking this class will be meeting the Next Generation Science Standards performance expectations for Ecosystems: Interactions, Energy, and Dynamics whilst also preparing themselves for the Module B – Continuity and Unity of Life component of the PA Biology Keystone Exams.

ECOLOGY LS #4094 Grade: 9 (1 Credit)

Course Description: This course is designed for students with learning disabilities and tailors content to meet individual needs. Study the complexity of the world we live in and its sustainability. Examine the world's natural processed and social systems using adapted materials and modified lessons. Topics covered include all biotic and abiotic components of our global environment, ecological relationships and changes, evolution of species and the relationship between structure and function at all levels of organization among living things. Students taking this class will be the Next Generation Science Standards performance expectations for Ecosystems: Interactions, Energy and Dynamics whilst also preparing themselves for the Module B – Continuity and Unity of Life component of the PA Biology Keystone Exams.

SCIENCE NEWCOMER\* #4072 Grade: Placement based on WIDA score (1 Credit)

Course Description: Newcomer Science provides extensive language instruction to students who have been in the United States less than one year and receive an English Language Proficiency Level 1 on the WIDA screener. The introductory class will focus on three aspects of scientific exploration with the focus on the four domains of language acquisition. The class will start an overview of the scientific method, lab procedures, measurement, and a variety of graphing of information. Focus shifts to the complexity of the human body and its systems. Finally, students will study the ecology and sustainability.

ECOLOGY EL #4074 Grades: 9, 10 (1 Credit)

Course Description: This course is designed to provide adaptations to students with limited English proficiency. Study the complexity of the world we live in and its sustainability. Examine the world's natural processes and social systems. Topics covered include all biotic and abiotic components of our global environment, ecological relationships and changes, evolution of species, and the relationship between structure and function at all levels of organization among living things. Students taking this class will be meeting the Next Generation Science Standards performance expectations for Ecosystems: Interactions, Energy, and Dynamics whilst also preparing themselves for the Module B – Continuity and Unity of Life component of the PA Biology Keystone Exams.

BIOLOGY\* #4501 Grade: 10 (1 Credit)

**Prerequisites:** Successful completion of 9th grade Ecology.

Course Description: Visualize, model and describe complex natural structures that function as a system, from the simplest unicellular organisms to complex multicellular organisms. Study evidence of processes necessary for life, including, but not limited to biological molecules, photosynthesis, cellular respiration, reproduction, heredity, and evolution. Develop thorough understanding of the interrelatedness of living organisms.

BIOLOGY H\* #4502 Grade: 10 (1 Credit)

**Prerequisites:** Successful completion of 9th grade H Ecology

Course Description: Visualize, model and describe complex natural structures which function as a system, from the simplest unicellular organisms to complex multicellular organisms. Study evidence of processes necessary for life, including, but not limited to biological molecules, photosynthesis, cellular respiration, reproduction, heredity, and evolution. Develop thorough understanding of the interrelatedness of living organisms. Investigate biochemistry and cell processes through inquiry. Use logic, creativity, and analytical skills to build a fundamental understanding of biology.

CORE SCIENCE #4401 Grades: 10, 11 (.5 Credit)

Course Description: Build upon the skills and knowledge necessary to pass the Biology Keystone. This course acts as a supplement to your keystone biology course. We will expand upon the functions necessary for life, reproduction, heredity, and the interrelationship of structure and function as life forms increase in complexity from unicellular to multicellular organisms. This course is required for all students taking the Biology Keystone Exam.

LIFE SCIENCE ES\* #4023 Grade: 10 (1 Credit)

Course Description: This course is designed for students with emotional disabilities and tailors content to meet individual needs. Life Science invites students to investigate the world of living things – at levels both large and small – by reading, observing, and experimenting with aspects of life on earth. Students explore a variety of organisms, the complex workings of the cell, the relationship between living things and their environments, and discoveries in the world of modern genetics. Practical, hands-on activities help students discover how scientists investigate the living world. Students perform laboratory activities and an entire unit learning and applying the scientific method.

LIFE SCIENCE LS\* #4093 Grade: 10 (1 Credit)

Course Description: This course is designed for students with learning disabilities and tailors content to meet individual needs. Life Science invites students to investigate the world of living things – at levels both large and small – by reading, observing, and experimenting with aspects of life on earth. Students explore a variety of organisms, the complex workings of the cell, the relationship between living things and their environments, and discoveries in the world of modern genetics. Practical, hands-on activities help students discover how scientists investigate the living world. Students perform laboratory activities and an entire unit learning and applying the scientific method.

LIFE SCIENCE EL #4075 Grades: 10, 11 (1 Credit)

Course Description This course is designed to provide adaptations to students with limited English proficiency. Life Science program invites students to investigate the world of living things – at levels both large and small – by reading, observing, and experimenting with aspects of life on earth. Students explore a variety of organisms, the complex workings of the cell, the relationship between living things and their environments, and discoveries in the world of modern genetics. Practical, hands-on activities help students discover how scientists investigate the living world. Students perform laboratory activities and an entire unit learning and applying the scientific method.

BIOLOGY ES\* #4025 Grade: 11 (1 Credit)

Prerequisites: Successful completion of 9th grade Ecology.

Course Description: This course is designed for students with emotional disabilities and tailors content to meet individual needs. Visualize, model, and describe complex natural structures that function as a system, from the simplest unicellular organisms to complex multicellular organisms. Study evidence of processes necessary for life, including, but not limited to biological molecules, photosynthesis, cellular respiration, reproduction, heredity, and evolution. Develop thorough understanding of the interrelatedness of living organisms.

BIOLOGY LS\* #4095 Grade: 11 (1 Credit)

Prerequisites: Successful completion of 9th grade Ecology.

Course Description: This course is designed for students with learning disabilities and tailors content to meet individual needs. Visualize, model and describe complex natural structures that function as a system, from the simplest unicellular organisms to complex multicellular organisms. Study evidence of processes necessary for life, including, but not limited to biological molecules, photosynthesis, cellular respiration, reproduction, heredity, and evolution. Develop thorough understanding of the interrelatedness of living organisms.

BIOLOGY EL #4077 Grade: 11 (1 Credit)

Prerequisites: Life Science EL

Course Description: This course is designed to provide adaptations to students with limited English proficiency. Visualize, model, and describe complex natural structures that function as a system, from the simplest unicellular organisms to complex multicellular organisms. Study evidence of processes necessary for life, including, but not limited to biological molecules, photosynthesis, cellular respiration, reproduction, heredity, and evolution. Develop thorough understanding of the interrelatedness of living organisms.

### (EHS) ECOLOGY OF THE GREAT LAKES\* #5819 Grades: 9, 10, 11, 12 (1 Credit)

Course Description: This course will study ecological complexities with special emphasis on the natural processes and social systems both in and around the Great Lakes bordering the United States and Canada. Through the use of multiple resources using online platforms, from academia and government, this course will emphasize understanding and application of principles and concepts, both individually and collectively, that affect all of these systems in multiple assessment methods.

(EHS) METEOROLOGY\* #4929 Grades: 9, 10, 11, 12 (.5 Credit)

Course Description: Develop an understanding of the earth's atmosphere and the factors that affect weather and climate in this semester-long meteorology course. Use laboratory and technology skills to analyze weather models and make evidence-based forecasts. Explore extreme weather events that impact human safety and alter environmental conditions. Study the current rate of climate change and develop awareness of the human impacts that have the potential to create lasting global transformation. Learn how precipitation creates our weather and how to forecast the weather on a daily basis.

(EHS) ASTRONOMY\* #4921 Grades: 10, 11, 12 (.5 Credit)

Course Description: Introduction to the concepts of modern astronomy, the origin and history of the universe and the formation of the earth and the solar system. Develop knowledge and skills from the Next Generation Science Standards and learn Earth's place in the universe. Compare the Earth's properties with those of the other planets and explore how the heavens have influenced human thought and action from the Greeks to modern time. Describe astronomical phenomena from the earliest geocentric thinking to modern heliocentric thinking using the laws of physics. Although largely descriptive, the course will occasionally require the use of sophomore-level mathematics.

CONCEPTS OF PHYSICAL SCIENCE\* #4835 Grades: 11, 12 (1 Credit)

**Prerequisites:** Completion of Biology

*Course Description:* Apply the basic concepts of matter, energy, and motion to daily life through lab-based lessons focused on the "Big Ideas" of chemistry and physics.

PHYSICAL SCIENCE ES\* #4027 Grades: 11, 12 (1 Credit)

Prerequisites: Completion of Biology

*Course Description:* Apply the basic concepts of matter, energy, and motion to daily life through lab-based lessons focused on the "Big Ideas" of chemistry and physics.

PHYSICAL SCIENCE LS\* #4097 Grades: 11, 12 (1 Credit)

**Prerequisites:** Completion of Biology

*Course Description:* Apply the basic concepts of matter, energy, and motion to daily life through lab-based lessons focused on the "Big Ideas" of chemistry and physics.

(EHS) FORENSICS\* #4911 Grades: 11, 12 (.5 Credit)

Prerequisites: Biology and Chemistry

Course Description: This course is designed for students interested in the field of Crime Scene Investigation and Forensic Science. Learn about actual crimes both old and new. Some crimes span back thousands of years and others are as recent as the past decade. Learn how various aspects and evidence from a crime scene can help to convict a criminal.

**GENETICS H\*** #4914 **Grades: 11, 12** (.5 Credit)

**Prerequisites:** Biology and Chemistry

Course Description: Develop current understanding of heredity including Mendelian Genetics and complex patterns of inheritance. Use investigation to learn about ABO blood groups, DNA analysis and karyotypes. Study current topics of DNA editing, gene regulation, mutations, and genetic engineering technology (ex: GMOs and CRISPR). Discuss and debate ethical issues in genetics such as designer babies and cloning in humans.

HUMAN SYSTEMS\* #4925 Grades: 11, 12 (.5 Credit)

Prerequisites: Biology

Course Description: This introductory course to anatomy is for students interested in learning the major systems of the human body that provide vital functions to keep us alive. Students may take this science elective as a precursor to Anatomy and Physiology, but it is not required to take the course.

CHEMISTRY\* #4601 Grades: 11, 12 (1 Credit)

Prerequisites: Passing grade in Algebra I

Course Description: Build an understanding of the basic chemical processes important to college and technical-school level science courses. Learn to carry out scientific observations of chemical processes through integration of laboratory skills, and mathematical and logical analysis. Develop scientific communication skills by writing lab reports.

CHEMISTRY H\* #4602 Grades: 11, 12 (1 Credit)

**Prerequisites:** Algebra I H or passing with a B or Higher in Algebra I

Course Description: Explore inorganic chemistry and organic chemistry concepts and build skills for an introductory college chemistry course`. Learn concepts including, but not restricted to, measurement, reliability in data, dimensional analysis, atomic theory, periodicity, quantitative calculations in chemistry, writing and balancing equations, bonding theory, stoichiometry, acid and bases, solution chemistry, and gas law applications. The course will include extensive lab work and lab reporting relating to lecture material.

(CA) AP CHEMISTRY #4608 Grades: 11, 12 (1 Credit)

Prerequisites: Biology and Chemistry

Course Description: This class is designed for the mathematically and scientifically-minded student looking for a challenge. Students are introduced to topics and concepts covered in a college freshman chemistry course of both lecture and lab. They attain a depth of understanding of fundamentals and competence dealing with chemical problems. The course contributes to the development of students' ability to think clearly and express their ideas, orally and in writing, with clarity and logic. An emphasis is placed on complex quantitative calculations related to chemistry. Laboratory work is 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 May.

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

**Prerequisites:** Biology and Chemistry

Course Description: This is an entry-level survey course of organic chemistry that introduces 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.

PHYSICS\* #4701 Grades: 11, 12 (1 Credit)

**Prerequisites:** 70% in Algebra I or math teacher recommendation.

*Course Description:* Explore concepts including forces, mechanics, work and energy, electricity, and magnetism in a lab environment. Activities include labs, lecture, and special projects as determined by teacher.

PHYSICS H\* #4702 Grades: 11, 12 (1 Credit)

**Prerequisites:** 85% in Algebra I or math teacher recommendation.

Course Description: Explore concepts of forces, mechanics, work and energy, electricity and magnetism experimentally in a lab environment. Activities include labs, lecture, and special projects as determined by teacher. This honors course is designed for student who intend to pursue a career in a STEM field and moves at an advanced pace.

(CA) AP PHYSICS I #4706 Grades: 11, 12 (1 Credit)

**Prerequisites:** Biology, Chemistry, Geometry, and Algebra II. A scientific calculator is required for this class.

Course Description: This course uses Algebra II level math to relate matter, motion, and energy. Laboratory activities measure, analyze, and predict the physical world. Problem solving activities will make extensive use of mathematics. Areas covered include classical mechanics, heat, wave phenomena, and electricity.

### (CA) AP PHYSICS II #4708 Grade: 12 (1 Credit)

**Prerequisites:** AP Physics I. Concurrent enrollment in calculus is recommended. A scientific calculator is required for this class.

Course Description: This course continues where AP Physics 1 leaves off and provides students with the opportunity to receive college credit. This is an 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 in-depth classical mechanics.

### (CA) AP ENVIRONMENTAL SCIENCE #4816 Grades: 11, 12 (1 Credit)

Prerequisites: Biology and Chemistry

Course Description: 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 May.

### (CA) FRESHWATER & MARINE BIOLOGY #4838 Grades: 11, 12 (1 Credit)

Prerequisites: Biology and Chemistry

Course Description: This class studies chemical and biological factors of freshwater and ocean water. It is a hands-on course with several labs designed to help students problemsolve and think critically. The class integrates all sciences: biology, chemistry, earth science, environmental science, physical science, geology, and geography.

### (CA) PRINCIPLES OF ENGINEERING #4832 Grades: 11, 12 (1 Credit)

**Prerequisites:** Concurrent enrollment in, or completion of, AP Physics I and Computer Aided Design.

Course Description: Students 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.

AP BIOLOGY\* #4508 Grade: 12 (1 Credit)

**Prerequisite:** Successful completion of Biology and Chemistry courses and teacher recommendation.

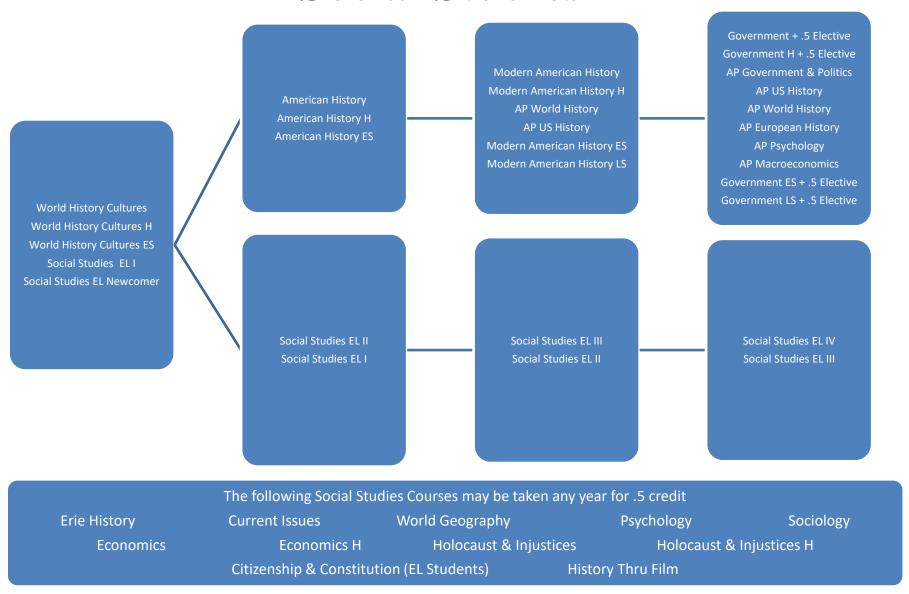
Course Description: Develop a deeper understanding of biology through inquiry-based investigations and exploration of cellular communication and energetics, evolution, ecology, genetics, information transfer and interactions. Perform various experiments, compile data and analyze results in this introductory college-level course. This course prepares students for the AP Exam, administered in May.

### ANATOMY & PHYSIOLOGY H\* #4802 Grade: 12 (1 Credit)

Prerequisites: Biology, Chemistry

Course Description: Demonstrate in-depth understanding of the principles of anatomy (structure) and physiology (function) and their interrelationships in the human body. Dissect preserved specimen and relate their structures and functions to humans. Perform microscopic study, physiological experiments, and computer simulations on all of the body systems and their organization. Create multimedia presentations and other projects that communicate knowledge of the body. Develop knowledge of health occupations and allied health sciences of biology and chemistry to explore these body systems: integument, skeletal, blood, muscular, nervous and special senses, cardiovascular, respiratory, urinary, reproductive, and digestive. Understand diseases related to each body system.

## **Social Studies**



### **SOCIAL STUDIES**

WORLD HISTORY CULTURES\* #2401 Grade: 9 (1 Credit)

Course Description: Research cultures, people, and events from Ancient Greek and Roman civilizations through World War II. Build skills necessary to make comparisons, understand cause and effect relationships, distinguish between fact and opinion, make inferences, draw conclusions, read maps, and create timelines, graphs, and charts.

WORLD HISTORY CULTURES H\* #2402 Grade: 9 (1 Credit)

Course Description: World history is the study of human patterns of interaction with a particular focus on change over time, global exchange, and those phenomena that connect people, places, and ideas across regional boundaries. Focusing on human interaction on all levels allows access to the big picture as well as the details of individual lives. Gain a perspective of the past that goes beyond a national or regional viewpoint to embrace large comparisons both spatially and temporally.

WORLD HISTORY CULTURES ES #2023 Grade: 9 (1 Credit)

Course Description: This course of study supports students with emotional disabilities to develop competence in researching cultures, people, and events from Ancient Greek and Roman civilizations through World War II. In this class, students follow the general education world history curriculum with modified assignments at a more individualized pace. These smaller classes provide more step-by-step instruction to help build the skills necessary to make comparisons, understand cause and effect relationships, distinguish between fact and opinion, make inferences, draw conclusions, read maps, and create timelines, graphs, and charts.

SOCIAL STUDIES EL NEWCOMER #2072 Grade: Placement based on WIDA score (1 Credit)

Course Description: This course is designed to provide adaptations to students in their first year in the country. Investigate world history to understand how societies and nations interact with each other. Learn to understand cause and effect relationships, compare and contrast, and recognize a fact or opinion.

SOCIAL STUDIES EL I #2073 Grade: Placement based on WIDA score (1 Credit)

Course Description: This course is designed to provide adaptations to students with limited English proficiency. Research cultures, people, and events from Ancient Greek and Roman civilizations through World War II. Build skills

necessary to make comparisons, understand cause and effect relationships, distinguish between fact and opinion, make inferences, draw conclusions, read maps, and create timelines, graphs, and charts.

#### AMERICAN HISTORY\* #2501

Grade: 10 (1 Credit)

Course Description: Build the skills necessary to examine American historical text and documents that are required in future courses. Develop knowledge and an understanding of American history and increase ability to decipher facts, dates, and events in order to bring history to life.

AMERICAN HISTORY H\* #2502 Grade: 10 (1 Credit)

Course Description: Examine historical events, concepts, and social issues. This course will begin with Colonial America and end with Immigration and Urban American 1865-1896. Enhance knowledge and understanding of American History and increase ability to decipher facts, dates, and events, and how to write a research paper. Complete district semester research papers and quarterly research papers on specific topics. Gain a unique understanding of American society and how it has survived and prospered.

AMERICAN HISTORY ES #2025 Grade: 10 (1 Credit)

Course Description: This course of study supports students with emotional disabilities to develop competence in examining American historical text and documents that are required in future courses. In this class, students follow the general education American history curriculum with modified assignments at a more individualized pace. These smaller classes provide more step-by-step instruction to help develop knowledge and an understanding of American history and increase ability to decipher facts, dates, and events in order to bring history to life.

### SOCIAL STUDIES EL II #2075 Grade: Placement based on WIDA score (1 Credit)

Course Description: This course is designed to provide adaptations to students with limited English proficiency to build the skills necessary to examine American historical text and documents that are required in future courses. Develop knowledge and understanding of American history and increase ability to decipher facts, dates, and events in order to bring history to life.

MODERN AMERICAN HISTORY\* #2601 Grade: 11 (1 Credit)

*Course Description:* Analyze American history from the Great Depression to WW II with the Greatest Generation.

Learn how the Cold War vaulted us into the Atomic Age and how we, the U.S., as a nation faced rising Communist threats around the world. Investigate the Civil Rights movement and its impact on modern issues. While investigating the past, consider the current issues of our time and make connections to the future and beyond while enhancing students' knowledge and understanding of America's place in the global world.

MODERN AMERICAN HISTORY H\* #2602 Grade: 11 (1 Credit)

**Prerequisites:** 85% in American History or teacher recommendation

Course Description: This study of American History begins in the 1890s and continues through the issues of the 21<sup>st</sup> century. Enhance knowledge and understanding of American history and American society. Increase ability to decipher facts, dates, and events in order to bring history to life. Successful completion of this course will require an in-depth knowledge of people, places, and events, as well as an understanding of their significance within a historical context.

### MODERN AMERICAN HISTORY ES #2027 Grade: 11 (1 Credit)

Course Description: This course of study supports students with emotional disabilities to develop competence in analyzing American history from the Great Depression to WW II with the Greatest Generation. In this class, students follow the general education modern American history curriculum with modified assignments at a more individualized pace. Students will investigate the Civil Rights movement and its impact on modern issues. While investigating the past, students will also investigate the current issues of our times and try to make connections to the future and beyond while enhancing students' knowledge and understanding of how we fit into the global world of today.

### MODERN AMERICAN HISTORY LS #2097 Grade: 11 (1 Credit)

Course Description: This course of study supports students with learning disabilities to develop competence in analyzing American history from the Great Depression to WW II with the Greatest Generation. Learn how the Cold War vaulted us into the Atomic Age and how we as a nation dealt with the rising Communist threats around the world. Investigate the Civil Rights movement and its impact on modern issues. While investigating the past, investigate the current issues of our times and try to make connections to the future and beyond while enhance students' knowledge and understanding of how we fit into the global world of today.

### SOCIAL STUDIES EL III #2077 Grade: Placement based on WIDA score (1 Credit)

Course Description: This course is designed to provide adaptations to students with limited English proficiency. Analyze American history from the Great Depression to WW II with the Greatest Generation. Learn how the Cold War vaulted us into the Atomic Age and how we as a nation dealt with the rising Communist threats around the world. Investigate the Civil Rights movement and its impact on modern issues. While investigating the past, investigate the current issues of our times and try to make connections to the future and beyond while enhance students' knowledge and understanding of how we fit into the global world of today.

GOVERNMENT\* #2831 Grade: 12 (.5 credit)

Course Description: Examine the theory and practical applications of government and economics, including a broad overview of the basic principles on which the United States was founded; how those principles are reflected in the Constitution and the Bill of Rights; and the role of the federal, state, and local governments. The course includes practical applications, including the views of both major and minor political parties, the role of the media, and civic responsibilities.

GOVERNMENT H\* #2832 Grade: 12 (.5 Credit)

**Prerequisites:** 85% in Modern American or teacher recommendation.

Course Description: Build the skills necessary to debate theory and practical applications of government. Evaluate the basic governmental principles on which the United States was founded. Examine how U.S. citizens' civil liberties are reflected throughout the Declaration of Independence, the U.S. Constitution, and the Bill of Rights. Analyze the role government plays at the federal, state, and local levels. Successful completion of an MLA informational LDC essay on the purposes of government is required to pass this course.

GOVERNMENT ES #2029 Grade: 12 (.5 credit)

Course Description: This course of study supports students with emotional disabilities to develop competence in examining the theory and the practical applications of government and economics, including a broad overview of the basic principles on which the country was founded, how those principles are reflected in the Constitution and the Bill of Rights, and the role of the federal, state, and local governments. In this class, students follow the general education government curriculum with modified assignments at a more individualized pace.

GOVERNMENT LS #2099 Grade: 12 (.5 credit)

Course Description: This course of study supports students with learning disabilities to develop competence in examining the theory and the practical applications of government and economics, including a broad overview of the basic principles on which the country was founded, how those principles are reflected in the Constitution and the Bill of Rights, and the role of the federal, state, and local governments. In this class, students follow the general education government curriculum with modified assignments at a more individualized pace.

### (EHS) CITIZENSHIP/CONSTITUTION (EL)\* #2801 Grades: 9, 10, 11, 12 (.5 Credit)

Course Description: Citizenship and the Constitution is designed to provide students who are new to the United States and have limited English proficiency with a better understanding of our government and the rights and responsibilities of citizens. The course will focus on the three main pillars that define the structure of citizenship: the rights and responsibilities of citizenship; participation in our communities, the Commonwealth, and the United States; and participation in a global society.

### AP MODERN WORLD HISTORY 1250-PRESENT\* #2408 Grades: 10, 11, 12 (1 Credit)

Course Description: Study human patterns of interaction with a particular focus on change over time, global exchange, and those phenomena that connect people, places, and ideas across regional boundaries. By focusing on human interaction on all levels learn to see the big picture as well as the details of individual lives. Students will read ample college-level materials, take a variety of tests, engage in frequent classroom discussions, acquire a good foundation of geographic skills, practice writing often, use media literacy skills, create powerpoint presentations, develop graphic organizers, and practice oral presentation skills through debates, trials, and seminars. Students will create an independent study group early in the year.

### AP US HISTORY\* #2716 Grades: 11, 12 (1 Credit)

Course Description: AP U.S. History is a survey course covering American history from the Pre-Columbian period to the present. Enhance knowledge and understanding of American history and increase ability to decipher facts, dates, and events, and to write essays. Learn US history in accordance with the AP U.S. History curriculum framework, and prepare for the AP U.S. History Exam in May.

(CA) AP EUROPEAN HISTORY #2708 Grades: 11, 12 (1 Credit)

**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 are explored in Advanced Placement European History. Students 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.

### AP GOVERNMENT AND POLITICS\* #2710 Grade: 12 (1 Credit)

Course Description: In this year-long social studies course students survey the functions, role, and purposes of the United States government, and understand the relevance and essential role that the government plays within U.S. citizens' lives. This course is designed to help students pass the AP U.S. Government and Politics Exam and earn college credits. Study U.S. government and politics through five major units which include: Foundations of American Democracy, Interactions among Branches of Government, Civil Liberties and Civil rights, American Political Ideologies and Beliefs, and Political Participation. In addition to governmental content, students will improve their writing, speaking, and critical and analytical thinking skills.

### (CA) AP MACROECONOMICS #2712 Grades: 11, 12 (1 Credit)

Course Description: 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. 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.

### (CA) AP PSYCHOLOGY #2714 Grades: 11, 12 (1 Credit)

Course Description: The Advanced Placement course in Psychology introduces 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.

### (EHS) ERIE HISTORY\* #2821 Grades: 9, 10, 11, 12 (.5 Credit)

Course Description: Explore Erie's history from 1795 to present. Learn about state and local geography, the city's first inhabitants, and Erie's relationship with important historical time periods. Explore key historical figures of Erie's rich legacy. Examine local and state history using primary and secondary sources in varying media. Reading analysis, classroom discussions, and research-based projects will be a focal point of this course.

### (EHS) WORLD GEOGRAPHY\* #2851 Grades: 9, 10, 11, 12 (.5 Credit)

*Course Description:* Designed to enhance student understanding of the world through the lenses of the five themes of geography. Make the connections of location, place, interactions, movement, and regions with each world region covered throughout the course to develop a global perspective.

### (EHS) PSYCHOLOGY\* #2841 Grades: 11, 12 (.5 Credit)

Course Description: Psychology is a one-semester course to introduce the field of psychology with an emphasis on critical thinking. Gain a set of intellectual tools with which to accurately understand the society. Participation, discussion, and feedback are needed. Learn through group activities and cooperation.

### (EHS) CURRENT ISSUES\* #2841 Grades: 11, 12 (.5 Credit)

Course Description: This course is designed to enhance your understanding of the volatile world. You will explore the various matters of contention that take place on a daily basis throughout our ever growing planet and universe. Numerous controversies and the questions they bring about will be examined throughout each class.

Current Issues involves a careful examination of situations as they arise. You will be required to scrutinize and discuss the various issues that take place throughout this semester. This is an exploratory course for the curious student and designed specifically for students who are inquisitive and want to investigate the 21st Century as it transpires. However, it also meets the needs of many students with other interests; as an elective for the analytical student with interests in education, politics, health, anthropology, national and international news and even sports! You may also view current issues as a course for upgrading critical thinking skills, or for just providing you with a general "feel" for the subject of world news. This course will be investigated through three themes: education, politics, and national/international relations.

### (EHS) SOCIOLOGY\* #2843 Grades: 11, 12 (.5 Credit)

Course Description: Sociology is a one-semester course to introduce the field of sociology with an emphasis on human interaction. Develop a skill set with which to effectively communicate in society. Participation, discussion, and feedback are required. Learn through group activities and work and cooperation.

### (EHS) HOLOCAUST & OTHER INJUSTICES\* #2881 Grades: 11, 12 (.5 Credit)

Course Description: Explore the fundamentals necessary to understand social injustices through multiple perspectives, and regions globally. Investigate 20<sup>th</sup> and 21<sup>st</sup> century genocides throughout the world. Examine primary and secondary sources through media and historical documents. Evaluate the meaning behind the Holocaust Memorial Museum's slogan: "Never Again." Learn the steps necessary to be an informed global citizen who advocates for justice. Completion of research projects is a requirement to pass this course.

### (EHS) HOLOCAUST & OTHER INJUSTICES H\* #2882 Grades: 11, 12 (.5 Credit)

Course Description: Explore the fundamentals necessary to understand social injustices through multiple perspectives, and regions globally. Investigate 20<sup>th</sup> and 21<sup>st</sup> century genocides throughout the world. Examine primary and secondary sources through media and historical documents. Evaluate the meaning behind the Holocaust Memorial Museum's slogan: "Never Again." Learn the steps necessary to be an informed global citizen who advocates for justice. Completion of research projects is a requirement to pass this course. This honors course is designed for students who are seeking a rigorous curriculum focusing on group discussion.

### (EHS) PERSONAL FINANCE H #5422 Grades: 11, 12 (.5 Credit)

**Course Description:** Students will follow financial advisor David Ramsey's Foundations in Personal Finance course to build financial confidence and learn about the management of money. Students will explore financial decision-making for a person or a family including budgeting, investments, college planning, life skills, and retirement planning for the future.

(EHS) ECONOMICS\* #2811 Grades: 11, 12 (.5 Credit)

Course Description: Analyze the fundamentals of economic systems and decision-making. Discuss key issues of microeconomics and macroeconomics to gain an understanding of the world of finance at a local and global level. Explore the concept of supply and demand to discover why prices rise and fall. Evaluate employment, labor, and wages to understand the job market in today's society to understand the way a free market economy works.

ECONOMICS H\* #2812 Grades: 11, 12 (.5 Credit)

Course Description: Analyze the fundamentals of economic systems and decision-making. Discuss key issues of microeconomics and macroeconomics to gain an understanding of the world of finance at a local and global level. Explore the concept of supply and demand to discover why prices rise and fall. Evaluate employment, labor, and wages to understand the job market in today's society help understand the way a free market economy works. This honors course is designed for students who are looking for a rigorous curriculum and may be pursuing post-secondary education.

### (CA) INTERNATIONAL RELATIONS H #2836 Grades: 11, 12 (.5 Credit)

**Course Description:** The course provides 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.

(CA) MOCK TRIAL I H #2856 Grades: 11, 12 (.5 Credit)

Course Description: Students learn legal terminology, courtroom procedure, Pennsylvania Law as it applies to specific cases, public speaking skills, questioning techniques, case strategy, evidence analysis, and more. Case materials are provided by the Pennsylvania Bar Association's Young Lawyers Division, which are used for the statewide Mock Trial competition each year, to create a courtroom scenario in which students perform the roles of prosecuting/plaintiff, defense attorneys, and witnesses. We work with a local

attorney during the class, and have guest speakers from a variety of legal occupations present and expose students to various careers in law. This spring semester course provides students with the foundation of knowledge and skills that are required to take Mock Trial 2 during the fall semester of the following school year. This course is open to students in grades 10 and 11.

### WELLNESS/FITNESS

WELLNESS/FITNESS I (required) #9421 Grade: 9 (.5 Credit)

Course Description: Learning physical literacy and health literacy will enable students to develop the confidence and competence to lead a life of vibrant wellness. Physical literacy will include pre- and post-fitness assessments, FITT principles, and an introduction to using the fitness lab. Health literacy will include nutritional education, suicide prevention, and the FLASH curriculum (Family Living and Sexual Health). In addition, students will participate in a curriculum rich in cooperative activities to foster strong friendships.

WELLNESS/FITNESSNESS II (required) #9423 Grades: 9, 10, 11, 12 (.5 credit)

Prerequisites: Wellness/Fitness I

Course Description: Continue exploring physical literacy and Health Literacy to build the confidence and competence to lead a life of vibrant wellness. Physical literacy will include pre- and post-fitness assessments, FITT principles, using the fitness lab, and developing personalized exercise plans. Health literacy will include nutritional education, suicide prevention, and conclude the FLASH curriculum (Family Living and Sexual Health). All dimensions of wellness: physical, nutritional, environmental, interpersonal, intrapersonal, and spiritual are emphasized.

(EHS) AQUATICS 1 #9501 Grades: 9, 10, 11, 12 (.5 credit)

Course Description: Red Cross Swimming and Water Safety program teaches people of all ages and varying abilities to swim and be safe in, on and around water. This course takes an inclusive approach that emphasizes skill development in conjunction with water safety and drowning prevention education. The Red Cross Swimming and Water Safety program also includes a variety of water safety lessons and presentations to help teach all age groups how to enjoy the water safely and how to stay safe in the event of an emergency. The swimmer will be evaluated on skill and based on evaluation will be assessed and placed in a swim level from 1-6. Lessons are designed to meet swimmer at their level and comfortably increase the level of skill. Erie High School is registered as an Authorized Provider for The American Red Cross Learn to Swim Program. This program is nationally recognized as the leading swim program in the nation.

(EHS) SPORTS NUTRITION #9527 Grades: 9, 10, 11, 12 (.5 credit)

*Course Description:* Explore health literacy in the nutritional domain to boost energy, manage stress, build muscle, lose fat, and/or improve performance. Develop skills to maximize

benefits from the foods you choose and meals you make before and during exercise to refuel for optimal recovery. Explore the latest research on supplements, energy drinks, organic foods, fluid intake, popular diets, carbohydrate and protein intake, training, competition, fat reduction, and muscle gain.

## (EHS) CULTURAL COMPETENCE IN SPORTS MED #9543

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

Course Description: Cultural Competence in Sports Medicine provides background information on various cultures and presents strategies for engaging in cross-cultural interactions. Develop cultural considerations for each stage in the physical assessment process, including taking an oral history, inspecting, observing, and palpating. Build appropriate palpation techniques across cultures so athletes are comfortable with the type and degree of physical contact. Learn conventional dress code generally expected by different cultures to cultivate a professional atmosphere.

(EHS) LIFEGUARDING #9509 Grades: 10, 11, 12 (.5 credit)

Prerequisite: Aquatics I

Course Description: This course is designed to prepare students to meet the requirements established by the American Red Cross to become certified lifeguards. Students will receive classroom instruction and practical training in the areas of CPR, first aid, surveillance techniques, water entries, and rescue techniques. Though not required, students will be given the opportunity to test at the end of the semester for Lifeguard Certification from the American Red Cross. This class will also accommodate any student who wants to use this time to work on water skills as well as maintain or improve fitness levels. Students not obtaining a Lifeguard Certification will be given the option to acquire a First Aid/AED or CPR certification.

COMPETITIVE WELLNESS #9441 Grades: 10, 11, 12 (.5 Credit)

Prerequisite: Wellness/Fitness I, Wellness/Fitness II

Course Description: Develop offensive and defensive skills and improve physical fitness while participating in a team setting. Must be willing to participate in a highly competitive environment and demonstrate responsible behavior. Learn a variety of team sports such as spike ball, tchoukball, volleyball, paddleball, and basketball. Each unit will conclude with a playoff or championship game. Health Literacy includes the suicide prevention curriculum consisting of four lessons. Pre- and post- fitness testing will also be completed.

(EHS) LIFE FITNESS #9503 Grades: 10, 11, 12 (.5 Credit)

Prerequisite: Wellness/Fitness I, Wellness/Fitness II

Course Description: This course focuses on the fundamental components and principles of fitness. The course examines safety guidelines, proper technique, and exercise principles such as FITT. Students will assess their current level of fitness in relation to the five components of physical fitness: flexibility, cardiovascular health, muscular strength, muscular endurance and body composition. Students will also learn strategies to help them begin, design and maintain an exercise program to keep them FIT 4 LIFE=LIFEFIT. Also there is a component built into the curriculum which will include community members, guest speakers, teacher and agency presentations which will cover various topics of concern in regards to health education. Students will participate in one school wide project to promote a healthy lifestyle.

(EHS) STRENGTH TRAINING #9507 Grades: 9, 10, 11, 12 (.5 Credit)

Prerequisite: Wellness/Fitness I, Wellness/Fitness II

Course Description: Develop exercise technique fundamentals, spotting free-weights, and muscle anatomy knowledge. Learn program design including training methods and modes, exercise selection, muscle balance, exercise order, load assignment, training volume, rest periods, training frequency, and periodization. Health literacy includes the suicide prevention curriculum consisting of four lessons. Preand post-fitness testing will also be completed. Explore body composition analysis to monitor improvements in of lean body weight to body fat ratios.

(EHS) ACSM FITNESS & HEALTH #9541 Grades: 10, 11, 12 (.5 Credit)

**Prerequisite:** Wellness/Fitness I, Cultural Competence in Sports Medicine

Course Description: The American College of Sports Medicine, the largest and most respected sports and medicine organization in the world, provides the gold standard for health and physical literacy. Learn the latest guidelines for physical activity and nutrition. Explore research-based guidance unique to your health and fitness needs. Learn stepby step instructions for effective exercises, sample workouts, practical advice, age-specific physical activity and dietary guidelines, and strategies for incorporating exercise and healthy nutrition choices into busy lifestyles.

(EHS) HEALTH EMERGENCIES #9523 Grade: 10, 11, 12 (.5 credit)

Prerequisite: Wellness/Fitness I, Wellness/Fitness II

Course Description: Explore common sports injuries such as knee, leg, spine, hand and wrist, shoulder, head, and environmentally- induced injuries. Develop skills for identifying, assessing, and treating injuries. Learn to utilize the injury finder rubric to identify type of pain, location of pain, color of skin, and activity symptoms. Become certified in CPR/AED/First Aid by the American Red Cross.

(CA) PERSONAL FITNESS H #9522 Grades: 10, 11, 12 (.5 credit)

*Prerequisite:* Wellness/Fitness I. Completion or, or concurrent enrollment in, Wellness/Fitness II.

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 are 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.

(CA) PRIN. OF ATHLETIC TRAINING H. #9524 Grades: 11, 12 (.5 credit)

**Prerequisite:** Wellness/Fitness I and II. Concurrent enrollment in, or completion of, Human Anatomy & Physiology.

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 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 is utilized through guest speakers and shadowing opportunities available. Athletic Training provides a strong foundation for career choices in Sports Medicine.

#### (EHS) HIGH INTENSITY INTERVAL TRAINING #9535 Grades: 9, 10, 11, 12 (.5 credit)

Prerequisite: Wellness/Fitness I

Course Description: This course is for the student athlete or the student serious about increasing their fitness level and strength. Each class progressively builds upon the next. The format will be an instructor provided plan which includes strength training, plyometrics, agility, speed and mobility. Also covered are topics in sports nutrition, injury prevention and emergency response. In keeping with the HPE curriculum, we will also provide topics in the mental health component.

### **DANCE**

All dance courses count as wellness credit. Some classes require an audition.

(EHS) INTRO TO DANCE #9603 Grades: 9, 10, 11, 12 (.5 credit)

*Course Description:* This course will introduce students to several different forms and styles of dance. Some of these forms of dance students will learn are Hip Hop, Jazz, Tap, and Ballet. Students will learn a brief history of each form of dance and a short dance of each style.

(EHS) MULTICULTURAL DANCE #9615 Grades: 9, 10, 11, 12 (.5 credit)

**Course Description:** Dance is an extension and expression of the culture it is in. This course explores different dance cultures from around the world. Students will learn traditional, historical, and contemporary dances and movements from different countries..

HIP/HOP DANCE I H #9616 Grades: 9, 10, 11, 12 (.5 credit)

*Prerequisite:* Completion or, or concurrent enrollment in, Wellness/Fitness I.

Course Description: This 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 like a traditional Hip Hop dance class with a warmup, center combinations, group choreography, and improvisation/freestyle. Students 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 also participate in

school performances. Scheduling preferences will be given to upperclassmen when necessary.

(CA) DANCE ENSEMBLE I H #9626 Grades: 9, 10, 11, 12 (.5 credit)

**Prerequisite:** Audition or teacher permission.

Course Description: This course is a performance-based class for students who want to be a part of the Collegiate Academy Dance Ensemble. These students perform in a variety of performances within the school, and must demonstrate some knowledge in all styles of dance. Students will be exposed to guest teachers and unique performance opportunities. Students earn placement in this class based upon their performance audition. This class is the next step for those dancers seeking a more challenging class experience with performance opportunities or admittance into CADENCE.

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

*Prerequisite:* Completion or, or concurrent enrollment in, Wellness/Fitness I.

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 like professional jazz dance class, with a warm-up, across-the-floor progressions, center combinations, and group choreography. Students learn and develop basic rhythmic skills and weight shifts characteristic of Jazz dance, such as jazz runs, triplettes, chasses, jazz square, pas de bourées, 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.

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

**Prerequisite:** Jazz Dance I, or teacher permission based on previous dance experience and dance audition.

Course Description: This course is designed for intermediate/advanced dancers with at least 3-5 years of previous dance experience who are interested in learning advanced skills and increasing their jazz dance vocabulary. Class is structured like a professional jazz dance class with a warm-up, across-the-floor progressions, center combinations, and group choreography. Students will continue to learn and develop complex rhythmic skills and weight shifts characteristic of Jazz Dance I to include double and triple pirouettes, pas de bourées turns, layouts, and grandes jêtés. 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.

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

*Prerequisite:* Completion or, or concurrent enrollment in, Wellness/Fitness I.

Course Description: 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 like a professional contemporary dance class with a warm-up, across-the-floor progressions, center combinations, improvisation, and choreography. Students 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.

#### (CA) MODERN DANCE II H #9614 Grades: 10, 11, 12 (.5 credit)

**Prerequisite:** Modern Dance I, or teacher permission based on previous dance experience and 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 like a professional contemporary dance class, with a warm-up, across-the-floor progressions, center combinations, improvisation, and choreography. Students continue to learn and develop advanced movement skills and weight shifts characteristic of the Graham and Horton techniques, which 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.

# **GENERAL ELECTIVES**

(EHS) FRESHMAN SEMINAR #5501 Grade: 9 (.5 Credit)

*Course Description:* This survey course exposes students to the vocational programs available at Erie High School. Students explore courses in machine technology, engineering, culinary arts, carpentry, and cosmetology. Students complete career artifacts required for graduation.

(EHS) SOPHOMORE SEMINAR #5505 Grade: 10 (.5 Credit)

Course Description: Course topics include career exploration, résumé building, college research, financial aid planning, scholarship searches, application processes, interview skills, presentations by representatives from post-secondary schools and businesses, personal financial management, and other topics. Students complete career artifacts required for graduation.

(EHS) JUNIOR SEMINAR #5507 Grade: 11 (.5 Credit)

Course Description: Course topics include career exploration, résumé building, college research, financial aid planning, scholarship searches, application processes, interview skills, presentations by representatives from post-secondary schools and businesses, personal financial management, and other topics. Students complete career artifacts required for graduation.

(EHS) SENIOR SEMINAR #5503 Grade: 12 (.5 Credit)

Course Description: Course topics include career exploration, résumé building, college research, financial aid planning, scholarship searches, application processes, interview skills, presentations by representatives from post-secondary schools and businesses, personal financial management, and other topics. Students complete career artifacts required for graduation.

SAT PREP #5511 Grades: 10, 11, 12 (.5 Credit)

Course Description: Designed to prepare students for the SAT. Through practice exercises and quizzes. Develop strategies and skills needed to achieve success on the math, verbal and writing sections of the test, focusing on sentence completion, reading comprehension, standard written English usage, and impromptu essay development. Focus on individual growth. Work is student-centered, with significant peer interaction and individual reflection. Progress is be monitored via a baseline test, frequent checks, and comparison to PSAT results.

JOURNALISM #1853 Grades: 10, 11, 12 (.5 Credit)

#### Course Description:

Design and produce various forms of print media while learning journalistic techniques necessary for interviewing, researching, and writing. Students will write in different journalistic modes in addition to exploring, reading, watching and evaluating various modes of the media.

(EHS) AFRICAN-AMERICAN LITERATURE #1865 Grades: 11, 12 (.5 credit)

Course Description: Delve into and write responses to African American Literature, which spans from the time in history when slaves arrived to America to recent literary contributions. Selections of the genre include African oral storytelling and folktales to slavery, reconstruction, migration, civil rights and modern day narratives. Students will examine the impact and influences from European colonization and the Africa Diaspora, as these conditions have affected the life experiences of the contributing authors. Students will gain a deeper understanding of the varied cultures of the African American.

(EHS) WOMEN'S LITERATURE #1867 Grades: 11, 12 (.5 Credit)

Course Description: Students taking this course will read women's literature, spanning the global history of the genre from traditional oral storytelling and folktales to modern-day authors. Students will examine the impact of different literary critical theories relevant to women's literature, as depicted by authors across time and culture. Students will learn about major historical events in women's history, as well as how those events shaped the unique experience of women of all cultures through history.

(EHS) THE ART OF ARGUMENT #1863 Grades: 10, 11, 12 (.5 credit)

**Course Description:** Discover and develop communication skills necessary for public speaking. Improve conversational skills. Learn to debate a claim supported by evidence, and develop counterclaims. This course is suggested for students interested in pursuing a career in law or politics.

(EHS) CREATIVE WRITING #1851 Grades: 11, 12 (.5 Credit)

Course Description: Creative Writing is designed for students to create original forms of descriptive and expressive writing along with poetry, drama and fiction. Students will be able to craft fully use and further develop vocabulary with their use of creative writing techniques. This course will allow students to incorporate artistic and visionary skills, to

illustrate their writing with instructional and peer encouragement, guidance and support.

(EHS) YEARBOOK #1821 Grades: 9, 10, 11, 12 (1 Credit)

**Prerequisite:** Students must apply to be on the yearbook staff.

**Course Description:** Sharpen and share original imaginative skills necessary for publishing a high school yearbook. Selected highly motivated and creative members of the yearbook staff design all pages of the yearbook, cooperating as a team to develop the annual publication.

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

Course Description: This one-semester course introduces students to the fundamentals of acting and the many aspects of technical theatre. Basic acting techniques and theatre terminology are covered throughout the semester. Students learn about the many careers available in the world of theatre. The class also uses improvisation acting techniques, scripted rehearsals, and class performances to better their ability to perform in front of an audience.

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

Prerequisite: Theatre Arts I

Course Description: This one-semester course allows students to continue to improve acting skills through improvisation, scripted rehearsal, and class performances with a higher concentration on character development and script interpretation. The class also includes the historical development of the stage and the history of the Broadway musical. Participants are required to view theatrical productions throughout the semester and compose reviews of the many aspects of the production.

(CA) THEATRICAL PRODUCTION H #1840 Grades: 10, 11, 12 (.5 Credit)

Prerequisite: Theatre Arts I Theatre Arts II.

Course Description: The focus of this one-semester class is the production 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 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.

(EHS) INTRODUCTION TO TEACHING #6561 Grades: 9, 10, 11, 12 (.5 Credit)

Course Description: Learn about the teaching profession in the American education system. Explore a variety of perspectives on education including historical, philosophical, social, legal, and ethical issues in a diverse society. Explore career opportunities, develop skills, and make informed decisions about pathways to accomplished teaching. Build content knowledge for the purpose of creating relevant learning opportunities. Learn effective instructional strategies to engage students, and promote learning.

(EHS) EDUCATION COLLEGE COURSE #0900 Grades: 11, 12 (1 Credit) Varies by semester

Course Description: Enhance your understanding of education by taking a college course, offered by Edinboro University. Students will earn three (3) college credits at Edinboro University and one (1) honors-weight elective credit at Erie High School. Course offerings vary by semester and follow the Edinboro University schedule. Students will complete additional paperwork to register for the course.

(EHS) INTRODUCTION TO AVIATION #5851 Grades: 9, 10, 11, 12 (1 Credit)

Course Description: This introductory course will provide the foundation for advanced exploration in the areas of flying and unmanned aircraft systems. Students will learn about engineering practices, problem solving, and the innovations and technological developments that have made today's aviation and aerospace industries possible. Students will also learn about the wide variety of exciting and rewarding careers available to them. The course will inspire students to consider aviation and aerospace careers while laying the foundation for continued study.

(EHS) INTRODUCTION TO FLIGHT #
Grades: 10, 11, 12 (1 Credit)

**Prerequisite:** Introduction to Aviation

Course Description: This course will introduce students to basic aircraft and unmanned aircraft systems, structures, and their major components, principles of flight, and the fundamental physical laws affecting flight. Students will learn about basic aerodynamics and forces that act on aircraft in flight. This course will also introduce the main systems found on large and small airplanes and unmanned aircraft systems.

# **ART**

ART I #6901 Grades: 9, 10, 11, 12 (.5 Credit)

**Course Description:** Art I is open to all students regardless of their previous art experience. Develop skills by using a variety of drawing and painting media. Learn shading, figure drawing, perspective and painting techniques. Gain an understanding of the elements and principles of design as well as color theory.

ART II #6903 Grades: 10, 11, 12 (.5 Credit)

Prerequisite: Art I

Course Description: Improve artistic ability through a variety of two dimensional experiences. Work with pencil, conté crayon, charcoal, and pastels in a range of drawing assignments. Create a self-portrait, still life, and landscape in acrylics. Complete weekly assignments which will be critiqued by members of the class.

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

Prerequisite: Art I and Art II.

**Course Description:** Armed with the fundamentals of Art I and Art II, students will now produce artwork that reflects personal style and inner expression. Students complete assignments that offer greater freedom to personalize artwork and showcase creativity. Students will work in drawing and painting media to produce art that is unique. Students are expected to complete a weekly assignment and sketchbook.

INTRODUCTION TO CERAMICS #6911 Grades: 9, 10, 11, 12 (.5 Credit)

Course Description: In this hands-on course, you'll explore the wonderfully messy world of ceramics. Get to know the basics like how clay is formed, clay stages, and the firing process. Experience the basics of hand-built ceramics by using the pinch, slab, and coil techniques to create some art. Discover how to work with clay to create both functional and decorative sculptures, like containers, tiles, and more. Expectations are to draw your ideas and execute them in clay. After an artwork is fired, you'll learn how to glaze it using overglazes.

CERAMICS II #6913 Grades: 10, 11, 12 (.5 Credit)

Prerequisite: Intro to Ceramics

Course Description: Continue your muddy adventure and build on ceramics knowledge from Intro to Ceramics in this course. Improve your clay skills to construct a variety of projects that include clay modeling, 3-dimensional slab construction, and more. Try the pottery wheel for the first time in this course to see if you like getting your hands literally in the mud! Use more advanced ways to decorate your art like using underglazes and more advanced techniques in your clay adventure. Craftsmanship is held to a higher standard in this course.

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

Prerequisite: Intro to Ceramics and Ceramics II

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

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

*Prerequisite:* Intro to Ceramics, Ceramics II, and Advanced Ceramics.

Course Description: This course is designed to expand on the skills and ideas of the serious ceramic student. Various ceramic artist studies are examined and replicated. Students explore ceramic techniques including refining hand-building skills and advanced wheel throwing. Students deal with more complex and conceptual forms. Additionally, students are challenged to use prior ceramic knowledge and skills to create new and inventive pieces. Every effort is made to accomplish the goals and objectives in a timely and efficient manner that will allow the students the optimum opportunity to excel in their work. Over and under glazes are used, and students are required to maintain a notebook with sketches and design proposals. Students are responsible for donating a predetermined piece to the school art gallery.

(EHS) 3D ART #6923 Grades: 9, 10, 11, 12 (.5 Credit)

Course Description: Explore the art of sculpture in this handson class that discovers the realm of the 3-dimensional artist specifically. From bas relief to stand alone sculptures, students create a variety of functional to decorative artworks that start from sketches and develop into a finished sculpture. Students work with clay, papier mâché, wire, paper, metal, and more to create 3D artworks to explore different subjects.

(EHS) INTRO TO PAINTING #6955 Grades: 9, 10, 11, 12 (.5 Credit)

Course Description: Looking to step up your painting skills? Expand your knowledge of composition, color theory, and painting techniques in this course. Paint a variety of subjects like landscape, portrait, still-life, and more using traditional and non-traditional brushes. In this course, you'll learn how to stretch your own canvas, prepare a material for painting, and paint on non-traditional canvases, like wood, cardboard, and more. Work with watercolors, acrylics, inks, and other mediums to develop the whole canvas from background to details.

(EHS) POSTER ART #6921 Grades: 9, 10, 11, 12 (.5 Credit)

Course Description: Develop the art of lettering for advertising. Work with various media to create a series of posters and two-dimensional projects incorporating design concepts. Learn calligraphy using pen and ink and develop individual ideas using basic layout design. Execution of ideas, mastering mediums, and neatness are key to successful projects in this class.

(CA) AP ART HISTORY #6932 Grades: 11, 12 (1 Credit)

Course Description: Students explore varying contexts of ideas and social/ historical situations in which works of art have been created. Students gain an appreciation of art from various times and cultures, and they learn about the materials and processes in the creation of art and architecture from class lectures, readings of the text, videos, and slide presentations. Each student must give a detailed presentation of an artist, period or style of art, or a specific work of art.

(CA) AP STUDIO ART #6934 Grades: 11, 12 (1 Credit)

Prerequisite: Art I, Art II, and Art III.

**Course Description:** This course is designed for the highly motivated art student committed to producing quality, two-dimensional artwork. The student artist creates a portfolio of artwork over the course of the school year. Each portfolio comprises three sections: a quality section made up of five

matted works of art; a section made up of twelve compositions showing diversity in a variety of mediums; and a series of twelve compositions documenting the student's exploration of a specific area of concentration that he or she designs.

Members of this class are exposed to demonstrations and videos aimed at presenting a variety of approaches and techniques in drawing and painting.

(EHS) INDEPENDENT STUDY #6944 Grade: 12 (.5 credit)

Prerequisite: 3 years of Art and Teacher Recommendation Course Description: Only serious art students should join this course as it requires 3 years of art and a teacher recommendation. Students take control of their learning in this last course of art making. Students are responsible for proposing their own projects and executing them independently. Explore their own style of art in their choice of medium and subject matter. Focus will be on developing a body of work that is suitable to make a portfolio for submission into art schools. Students are expected to work independently and to challenge themselves in ideas and techniques. Meetings with the teacher will focus on techniques, composition, and critiques of their work and classmates.

(EHS) ART LAB ASSISTANT H #6942 Grade: 12 (.5 credit)

Prerequisite: 3 years of Art and Teacher Recommendation

Course Description: Interested to learn about maintaining an art studio and the inner workings of teaching art? Students in this advanced class have taken three years of art, obtained a teacher recommendation, and are ready to learn how to assist the art teacher in teaching the class. Helpful students instruct and assist those at the lower levels gain skills and knowledge in the class. This advanced student also helps in organizing the classroom and assisting with the preparation of materials for the class. Students are expected to be well-versed in the medium that they are assisting and teaching in while being an independent worker.

# **COMPUTER TECHNOLOGY**

(EHS) KEYBOARDING Grades: 9, 10, 11, 12 #5415 (.5 Credit)

Course Description: Learn keyboarding skills necessary for word processing and other computer programs. Students will learn finger placement on the QWERTY keyboard to improve typing speed and accuracy. The course prepares students for producing typed assignments in other classes across subjects.

(EHS) INTRO TO BUSINESS Grades 9, 10, 11, 12 #5419 (.5 Credit)

**Course Description:** Get an introduction to the management of business and personal financial management. Become familiar with the concepts of money management, understanding income, spending, and credit as well as saving and investing.

DIGITAL LITERACY Grades: 9, 10, 11, 12 #6801

(.5 Credit)

Course Description: Learn keyboarding and Microsoft Word, PowerPoint, and Excel. Understand the basics of computers; sending emails, printing, internet skills, and keyboarding skills. Utilize browsers, search engines and other useful Internet tools to complete projects and class assignments.

PHOTO DIGITAL Grades: 9, 10, 11, 12 #6811

(.5 Credit)

**Prerequisites:** Digital Literacy

*Course Description:* Learn Adobe Photoshop CS3. Gain the skills to edit pictures, create photographs, and manipulate photographic images. Learn to critique qualities in a photograph using original work and that of others.

DESKTOP PUBLISHING

#6815

Grades: 10, 11, 12

(.5 Credit)

Prerequisites: Digital Literacy

Course Description: Get an introduction to the concepts of design and the basic elements of desktop publishing using Microsoft Publisher. 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.

(CA) COMPUTER AIDED DESIGN

#6818 (.5 Credit)

Grades: 10, 11, 12

*Course Description:* Using the latest software for 3D engineering design, students explore unique design techniques. Students use Autodesk Inventor, a parametric solid

modeling design software package. Hands-on experiences allow students to explore the exciting field of Computer Aided Engineering. Students use basic drawing principles as well as advanced computer-aided drawing techniques. Inventor is used extensively by the robotics team members to design our robot.

(EHS) INTRO TO PROGRAMMING H Grades: 10, 11, 12 #6820 (.5 Credit)

**Prerequisites:** Digital Literacy

*Course Description:* Learn basic coding using the two most popular and current languages. Develop structured coding methods, debugging skills, and logic for efficient problem

solving.

(CA) 3D MODELING/ANIMATION H Grades: 11, 12

#6832 (.5 credit)

Prerequisites: Computer Aided Design

Course Description: 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 by the entertainment industry to create feature films like X-Men 3 and The Incredibles. Students start by building simple 3D shapes and later develop full animated movie clips. 3D Studio Max is used by our robotics team to create several animations as part of our yearly competition.

(CA) AP COMPUTER SCIENCE

#6836 (1 Credit)

**Grades: 11, 12** 

**Prerequisite:** Introduction to Programming

Course Description: AP Computer Science A introduces students to computer science through programming. Fundamental topics in this course include the design of solutions to problems, the use of data structures to organize large sets of data, the development and implementation of algorithms to process data and discover new information, the analysis of potential solutions, and the ethical and social implications of computing systems. The course emphasizes object-oriented programming and design using the Java programming language.

(CA) ART & DESIGN Grades: 9, 10, 11, 12 #6926 (.5 Credit)

Course Description: This course allows students to experience the excitement of being a graphic artist and combine a love of fine art with the diversity of computer design. Students develop skills in layout, design, and illustration. Students use traditional fine arts media as well as computer and photoediting software to create art work. Through a series of products, students create graphic compositions that test their

ability to blend text with imagery that is visually pleasing, marketable, and balanced.

(CA) CARTOONING/ANIMATION #6946 Grades: 9, 10, 11, 12 (.5 Credit)

Prerequisites: Digital Literacy

**Course Description:** This course introduces the student to the history and development of cartooning. Students create cartoon characters, set them into a sequence of time frames, and eventually animate them with computer software. They also work with clay animation using stop-motion animation.

# FAMILY AND CONSUMER SCIENCE

(EHS) CHILD DEVELOPMMENT I Grades: 9, 10, 11, 12 #6551 (.5 Credit)

Course Description: Overview of child development from conception through birth. Understand the decision to parent, teen pregnancy, and prenatal development. Develop a positive attitude toward children, make wise parenting choices in the future, and prepare for careers in childcare/ education. Final Project: take home an infant simulator.

(EHS) CHILD DEVELOPMENT II Grades: 9, 10, 11, 12 #6553 (.5 Credit)

Prerequisites: Child Development I

**Course Description:** Prepare for a career in early childhood education. Use the principles of physical, intellectual, emotional and social development to learn about the growth of children from toddler to preschool. Develop a positive attitude about children, make wise parenting choices in the future, and learn about careers in childcare/education.

(EHS) COOKING I Grades: 9, 10, 11, 12 #6601 (.5 Credit)

Course Description: Focus on the development of basic skills needed to select, prepare, and serve food that meets the

nutritional needs of individuals and families. Course emphasis is on the development of competencies related to nutrition, kitchen organization and equipment, safety and sanitation, food proposition, and most planning.

food preparation, and meal planning.

(EHS) COOKING II Grades: 10, 11, 12 #6603 (.5 Credit)

**Prerequisites:** Cooking I: Foods and Nutrition

*Course Description:* Focus on building cooking skills beyond the basics. Use the skills from Cooking I and build more advanced skills through the study of culture, the marketplace, different preparations, and serving.

(EHS) FIBERS AND FABRICS Grades: 9, 10, 11, 12 #6605 (.5 Credit)

*Course Description:* Learn and develop sewing techniques. Apply the principles of design to varied sewing projects. Build a repertoire of basic skills and complete larger projects

compiling skills learned.

(EHS) HOMES AND INTERIORS

Grades: 9, 10, 11, 12

(.5 Credit)

**Course Description:** Learn the basics of buying a house. Analyze the factors that should be considered when selecting a home and neighborhood. Explore home selection, design, construction, and interior decoration, and investigate career choices in this field.

(EHS) LIFE MANAGEMENT Grades: 9, 10, 11, 12 #6711 (.5 Credit)

**Course Description:** Learn how to effectively communicate with people verbally and nonverbally. Develop successful interpersonal relationships including family, friends, and coworkers. Students develop conflict resolution skills, coping strategies, and goal setting skills.

# **MUSIC**

#### (EHS) BEGINNING INSTRUMENTS #8505 Grades: 9, 10, 11, 12 (.5 Credit)

Course Description: Explore the instrument families of band and orchestra. Develop basic musical skills and/or build on existing skills while learning to play different instruments. Students learn to read basic music notation and improve playing technique. Gain exposure to various genres of music, ranging from classical to contemporary. Emphasis will be based on participation and growth. No previous music experience necessary.

#### (EHS) MUSIC APPRECIATION #8811 Grades: 9, 10, 11, 12 (.5 Credit)

Course Description: This course offers an introduction to the elements of music through reading, writing, listening, discussion, and performance. Learn basic music theory and explore music history from opera to hip-hop. Opportunities will be provided to try different instruments, both traditional and non-traditional, throughout the semester. No prior musical knowledge required.

### GUITAR I #8486 Grades: 9, 10, 11, 12 (.5 Credit)

Course Description: Guitar is a one-semester course covering the basics of the instrument and application of essential music fundamentals. Students will learn the basics of playing the guitar using the Modern Band curriculum. Students will learn the basics of playing the guitar and the beginning through advanced levels. No prior guitar playing is required.

#### (CA) MUSIC THEORY H #8802 Grades: 9, 10, 11, 12 (1 credit)

**Prerequisite:** Must be able to read music and match pitch. Previous study of an instrument or voice and recommendation from a music teacher.

Course Description: For the student interested in music composition and/or considering music as a college major, this course provides the tools necessary to get started. This course prepares students to take the AP Music Theory class. The fundamentals of music — such as notation, rhythm, intervals and chords — are 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 work with online aural skills resources and apps. Students are also required to learn basic solfège (sight-singing). Students should be able to read both bass and treble clefs.

CLASSICAL PIANO I #8521 Grades: 9, 10, 11, 12 (.5 Credit)

Course Description: Designed for students who have little or no musical experience. Develop fundamental piano skills or build on existing skills. Learn to read basic musical notation, develop playing technique, and perform various pieces. Instruction takes place both on and off the keyboards. Experience a hands-on practical learning environment with emphasis on participation and growth.

CLASSICAL PIANO II #8525 Grades: 9, 10, 11, 12 (.5 Credit)

*Prerequisite:* Classical Piano I or pass entry evaluation. Basic music reading skills necessary.

*Course Description:* Begins where Classic Piano I leaves off. Develop more advanced chord, theory, and finger techniques. Build a repertoire of classical, jazz, folk, and pop music. Set a foundation for lifetime piano skills. Designed for advanced players who wish to continue to develop and broaden their musical horizons.

(EHS) BAND #8611 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. Band is designed for students with little to no previous musical training. Acquire music reading skills while learning a traditional band instrument: flute, clarinet, saxophone, trumpet, French horn, trombone, baritone, tuba, or percussion instruments. Learn basic music theory, music vocabulary, and proper playing technique. Develop a sense of belonging by performing with an ensemble. Requires participation in two evening concerts (one each semester.) Other opportunities for performance may arise.

JAZZ BAND #8701 Grades: 9, 10, 11, 12 (1 credit)

**Prerequisite:** Must be able to read music and be proficient in a jazz instrument.

Course Description: This 18-20 piece ensemble is open to intermediate level saxophone, trumpet, trombone, and rhythm section musicians. Jazz rhythm section consists of a drummer, a pianist, a bass player, and a guitar player. Learn about contemporary jazz music, jazz standards, and original compositions through performance and listening. Develop improvisation skills and experience a sense of cooperation and teamwork. Rehearsals are both large group and by section. Because jazz bands have a specific and limited instrumentation, this group is highly selective and is by audition only. Requires participation in two evening concerts (one each semester.)

(CA) WIND ENSEMBLE Grades: 9, 10, 11, 12

#8616 (1 credit)

**Prerequisite:** Experience playing a woodwind, brass, or percussion instrument, and the ability to read music. A placement audition is required.

Course Description: This course is for the advanced student who has previous experience playing a woodwind, brass, or percussion instrument and who can read music at an advanced level. Students learn about and perform contemporary styles of music, classical transcriptions, marches, and standard concert band repertoire. Students learn scales, articulations, and basic music theory and work together through ensemble playing as well as sectional rehearsals. Wind Ensemble performs in two concerts throughout the year, graduation, and may be called upon for other occasions.

#### (CA) INTRODUCTION TO ORCHESTRA #8590 Grades: 9, 10, 11, 12 (1 credit)

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 an orchestral string instrument, such as violin, viola, cello or double bass. Students learn basic music theory, musical terms and concepts, proper playing technique, and individual and ensemble performance skills. The students perform in two required performances throughout the year. This course helps prepare students for joining Orchestra.

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

**Prerequisite:** 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 perform a varied repertoire of music including orchestral transcriptions, multicultural works, classical pieces, and original pieces for string ensembles. Orchestra performs in two concerts throughout the year, graduation, and may be called upon for other occasions. Students experience a sense of cooperation and teamwork as they rehearse in both small sectionals and as a larger ensemble during Orchestra class.

(EHS) CHORUS #8421 Grades: 9, 10, 11, 12 (1 Credit)

Course Description: Explore choral music from a wide variety of cultures, genres, and time periods through study and performance. Learn the basics of vocal technique, sight-reading, music theory, and music history. Requires participation in two evening concerts (one each semester.) Other opportunities for performance may arise.

(CA) WOMEN'S CHORUS Grades: 9, 10, 11, 12

#8412 (1 credit)

**Prerequisite:** Must be able to match pitch. Pianists may audition to serve as accompanists.

Course Description: This course serves as an introduction to the vocal department. It is a non-audition performing choral group open to girls in grades 9–12. Students address the development of correct vocal techniques and music-reading skills through the use of choral literature, performing both three- and four-part selections. A variety of musical styles, including classical, spirituals, Broadway, and pop/contemporary selections, are used throughout the year. Students sing in a variety of foreign languages and will be introduced to a cappella singing. Because this class is a prerequisite to audition for any other vocal ensemble, students will be at varying levels. Students with previous experience will develop leadership skills. Women's Chorus performs in two concerts throughout the year.

(CA) MEN'S VOICE #8422 Grades: 9, 10, 11, 12 (.5 credit)

Course Description: This one-semester course is designed to help male students learn to sight-read, strengthen their voices, learn healthy vocal habits, and extend their range through their changing voices. From here, students will be ready to audition for full-year performing vocal ensembles and school musicals. Students perform with other vocal department students in an end-of-semester concert. Male singers new to Chamber Singers are encouraged to take both classes simultaneously when possible.

(CA) CHAMBER SINGERS H #8424 Grades: 10, 11, 12 (1 credit)

**Prerequisite:** Enrollment in this class is by audition only. Qualified pianists may also serve as accompanists.

Course Description: This course is an advanced-level traditional mixed choral group. This prestigious 40-50 member ensemble regularly performs for both school and community events. Chamber Singers perform in two concerts throughout the year, as well as graduation, and may be called upon for other occasions. They have also performed at Disney World and often travel to other such venues. Choral selections range from classical works like 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, PMEA State Honors and All-Eastern Choruses.

(CA) ADVANCED VOICE H #8444 Grades: 10, 11, 12 (1 credit)

**Prerequisite:** Enrollment is by audition only. Students must have taken at least one year of a choral ensemble class. Must be able to sing on pitch. The expectation is that students in this class will also be enrolled in a vocal ensemble, thus providing a direct means of skill application.

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

# **WORLD LANGUAGE**

SPANISH I\* #1923 Grades: 9, 10, 11, 12 (1 Credit)

Course Description: Learn the basics for proficiency in Spanish. Learn Spanish in the four basic communication skills: reading, writing, listening, and speaking. Classroom activities, multi-media, the standard textbook, and accompanying workbooks will all serve to enhance awareness of Spanish influences in our lives. Students must complete Spanish I to advance to Spanish II.

SPANISH II\* #1925 Grades: 10, 11, 12 (1 Credit)

Prerequisite: Spanish I

Course Description: Continue to develop the key language skills of reading, writing, listening and speaking. Enhance skills through building vocabulary and continuing the study of the structure of the language. Learn to read longer passages in Spanish and participate in activities designed to expand knowledge and appreciation of the culture of Spanish-speaking countries. Audio materials featuring native speakers help to develop aural ability. Participate in large and small group activities to facilitate conversational skills.

SPANISH III H\* #1928 Grades: 11, 12 (1 Credit)

Prerequisites: Spanish I, 80% in Spanish II

Course Description: Apply knowledge from Spanish I & II to develop communication skills. Learn through reading in Spanish and practicing dialogues and vocabulary with classmates. This honors course prepares students who are serious about speaking Spanish or studying a foreign language in post-secondary eduction.

(CA) SPANISH IV H #1930 Grade: 12 (1 Credit)

Prerequisites: Spanish I, Spanish II, 80% in Spanish III

*Course Description:* Apply what you have learned in Spanish I, II, & III to develop your communication skills and learn through reading in Spanish, and practicing dialogues and vocabulary with classmates.

(CA) AP SPANISH #1932 Grade: 12 (1 Credit)

Prerequisites: Spanish I, 80% in Spanish II

*Course Description:* Prepare for the AP Spanish Exam, which is administered in May. Apply knowledge from Spanish I, II, III, and IV to develop your communication skills, and learn through reading in Spanish and practicing dialogues and vocabulary with classmates.

# JUNIOR RESERVE OFFICER TRAINING CORPS (JROTC)

JROTC I #9961 Grades: 9, 10, 11, 12 (1 Credit)

Course Description: This course provides an opportunity for leadership, education and training. First-year cadets study leadership theory and application, foundations for success, communication / study skills, citizenship, military customs and courtesies, and history. They will also learn self-discipline, map reading and basic first aid. Emphasis is placed on positive conduct and attitude.

**Requirements:** Haircuts are required. Proper courtesy will be displayed.

JROTC II #9963

Grades: 10, 11, 12 (1 Credit)

Prerequisites: All cadets must have completed level I of

**JROTC** 

Course Description: This course provides an opportunity for leadership, education and training. Second-year cadets expand their knowledge of first year subjects and assume leadership positions in the cadet CORPS. They study ethical values and principals of good citizenship along with American history and Government. Emphasis is placed on communication, both oral and written. Cadets are introduced to problem solving techniques and counseling.

**Requirements:** Haircuts are required. Proper courtesy will be displayed.

JROTC III #9965 Grades: 11, 12 (1 Credit)

**Prerequisites:** All cadets must have completed Level II of JROTC.

Course Description: This course provides an opportunity for leadership, education and training. Students study leadership strategies, foundations for success, managing conflict, career planning, financial planning, citizenship in American history and government with continued practical work in leadership, drill, technology awareness, and methods of instruction. Map reading and physical training are also included.

**Requirements:** Haircuts are required. Proper courtesy will be displayed.

JROTC IV #9967 Grade: 12 (1 Credit)

**Prerequisites:** All cadets must have completed Level III of JROTC.

Course Description: This course provides an opportunity for leadership, education and training. The fourth year is a self-study year with emphasis on leadership and communication along with preparations for college bound students. Demonstrate leadership potential as a role model, coach, and assistant instructor. Study service to the Nation and financial planning while practicing management skills, command and staff principals.

**Requirements:** Haircuts are required. Proper courtesy will be displayed.

# CAREER AND TECHNICAL EDUCATION PROGRAMS

All CTE programs are a sequence of four one-year courses. Incoming 8th grade students may apply to a CTE program when completing their Erie High Application. Any current Erie High student who elects a CTE course must begin with the level I course. In addition, all CTE courses have an associated articulation at the local or state level, making it possible for students to receive college credit for their coursework.

#### AUTO BODY TECHNOLOGY

Level I	<b>#7081</b>	3 credits
Level II (prerequisite Level I)	#7082	3 credits
Level III (prerequisites Level I & II)	#7083	3 credits
Level IV (prerequisites Level I, II & III)	#7084	3 credits

Auto body is an instructional program that prepares individuals to apply technical knowledge and skills to repair damaged automotive vehicles such as automobiles and light trucks. Level I students are introduced to workplace safety, hand and air tools, body fillers, welding and minor repairs. Level II students explore various body types, glass repair, air conditioning service, brakes, tires and wheels maintenance as well as electrical components including head lamps and air bags. Third year students build on prior experience to learn frame machine set up and measuring, paint booth and mixing room procedures, surface prep and primers. Level IV students use prior knowledge to learn vehicle damage estimating, advanced painting techniques and troubleshooting. Cooperative education opportunities are available for qualified students.

Certifications available: OSHA 10, S/P2, Air Conditioning EPA 609

#### **AUTO MECHANICS TECHNOLOGY**

Level I	#7121	3 credits
Level II (prerequisite Level I)	#7122	3 credits
Level III (prerequisites Level I & II)	#7123	3 credits
Level IV (prerequisites Level I, II & III)	#7124	3 credits

The Auto Mechanics program prepares individuals to apply technical knowledge and skills to engage in the servicing and maintenance of all types of automobiles and light trucks. Level I students are introduced to basic measurement, hand and power tools, brakes, steering and suspension systems and basic engine operation. Level II continues with basic electrical systems, precision measuring tools, advanced brake replacement, scanning and diagnostic tools and engine performance. Third year students explore advanced electrical diagnostics and repair, PA safety inspection and emissions, alignments, fuel systems, sensors and transmissions. Level IV students prepare for the State Inspection Licensing exam and complete certifications in Refrigerant Recovery and

Recycling. Cooperative education opportunities are available for qualified students.

Certifications available: OSHA 10, S/P2, Certified Automotive Information Specialist (CIAS), Air Conditioning EPA 609; students will be prepared to take the Pennsylvania State Inspection Licensing exam.

# CHILD CARE AND SUPPORT SERVICES MGMT Level I #7171 3 credits Level II (prerequisite Level I) #7172 3 credits

Level II (prerequisites Level I) #7172 3 credits
Level III (prerequisites Level I & II) #7173 3 credits
Level IV (prerequisites Level I, II & III) #7174 3 credits

The Child Care and Support Services Management program prepares individuals for a variety of occupations in child care and guidance often under the supervision of professional personnel in child or day care centers. Level I students begin with pregnancy and development of children from birth to young school age. They are introduced to health and safety, play experiences and meeting children's needs. In year two, students, continue health and safety instruction, child development theory and practices. At this level, students are expected to observe pre-school age children in the classroom. Level III students are instructed in age-appropriate educational materials and toys for children, developing meals and snacks, keeping records and producing reports and budgets. Third and Fourth year students begin a 420 hour field experience in the Pre-K classroom working with children to prepare for the Child Development Associate (CDA) portfolio and exam. Cooperative education opportunities are available for qualified students.

Certifications available: OSHA 10, Pediatric CPR/AED/First Aid, ServSafe, Child Development Associate (CDA).

#### **CONSTRUCTION TRADES**

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Level I	#7171	3 credits
Level II (prerequisite Level I)	#7192	3 credits
Level III (prerequisites Level I & II)	#7193	3 credits
Level IV (prerequisites Level I, II & III)	#7194	3 credits

The Construction Trades program prepares individuals to apply technical knowledge and skills in the erection and installation of buildings and other structures using assorted materials such as metal, wood, stone, brick, glass, concrete, and composition substances. First year students begin with safety, hand and power tools, basic job skills, blueprint reading and simple layouts. Level II students continue with framing, stairs, flooring and roofing and exterior finishes. Level III students advance their learning with foundations, electricity, HVAC, plumbing, millwork, painting and finishing. Fourth year students complete a senior project based on 3-D designing, blueprinting and cost estimation for a single family home. Cooperative education opportunities are available for qualified students.

Certifications available: OSHA 10, S/P2, NCCER Core, Carpentry, HVAC, Plumbing, Electrical, Masonry, Construction Technology.

#### COSMETOLOGY

Level I	#7221	3 credits
Level II (prerequisite Level I)	#7222	3 credits
Level III (prerequisites Level I & II)	#7223	3 credits
Level IV (prerequisites Level I, II & III)	#7224	3 credits

The Cosmetology program prepares individuals to apply technical knowledge and skills related to experiences in a variety of beauty treatments including the care and beautification of the hair, complexion and hands. Level I students begin with safety, bacteriology, professionalism, career exploration, shampooing, and principals of hair design. Second year students begin with business law, hair and nail care, make-up and simple styling. Level III begin advanced training in coloring, styling, facials, manicures and pedicures. Level IV students master haircutting and coloring, advanced lab practices, and prepare for the Pennsylvania State Cosmetology Licensing exam. Cooperative education opportunities are available for qualified students.

Certifications available: OSHA 10, Pennsylvania State

#### **CRIMINAL JUSTICE**

**Board of Cosmetology License.** 

Level I	<b>#7701</b>	3 credits
Level II (prerequisite Level I)	#7702	3 credits
Level III (prerequisites Level I & II)	#7703	3 credits
Level IV (prerequisites Level I, II & III)	#7704	3 credits

The Criminal Justice program prepares individuals to perform the duties of police and public security officers, including patrol and investigative activities, traffic control, crowd control and public relations, witness interviewing, evidence collection and management, basic crime prevention methods, weapon and equipment operation and maintenance, report preparation, and other routine law enforcement responsibilities. First year students are introduced to safety, constitutional law, blood-borne pathogens, fire fighting and career exploration. Level II students move on to corrections, probation, forensics and homeland security. Level III students receive instruction in the PA crimes code, the court system, ethics in policing, self-defense and private security. Fourth year students receive advanced instruction in communications and dispatching, writing reports, investigating accidents, traffic stops and drug laws. Cooperative education opportunities are available for qualified students.

Certifications available: CPR/First Aid/AED, Blood-borne Pathogens, National Incident Management System (NIMS) 100, 200, 700 and 800; OCAT, PATH, PPBT, Personal Protection, Control and Defense.

#### **DIGITAL MEDIA**

Level I	#7831	3 credits
Level II (prerequisite Level I)	#7832	3 credits
Level III (prerequisites Level I & II)	#7833	3 credits
Level IV (prerequisites Level I, II & III)	#7834	3 credits

The Digital Media program prepares individuals to communicate dramatic information, ideas, moods and feelings through the production of films and videos. Level I students begin with safety and professionalism, camera fundamentals, storyboarding and basic scriptwriting. Level II students expand into camera sequencing, live production, editing techniques and commercial script writing. Third year students receive instruction in digital photography, Adobe Photoshop, graphics, lighting techniques, podcasting and radio. Fourth year students create portfolios, produce mini documentaries, promotional videos and resumes. All students participate in the creation and production of Erie High School's Morning Announcements. Cooperative education opportunities are available for qualified students.

Certifications available: OSHA 10, Adobe Certified Associate.

#### FOOD SERVICES

Level I	<b>#7461</b>	3 credits
Level II (prerequisite Level I)	#7462	3 credits
Level III (prerequisites Level I & II)	#7463	3 credits
Level IV (prerequisites Level I, II & III)	#7464	3 credits

The Food Services program (aka Culinary Arts) prepares students for employment related to institutional, commercial, or self-owned food establishments or other food industry occupations. First year students are introduced to food and kitchen safety, introduction to the restaurant industry, equipment and communication and basic baking techniques. Level II students continue with professionalism, preparing soups, stocks and sauces, using fruits, vegetables, potatoes and grains, as well as restaurant management. Third year students advance to breakfast food, sandwiches, nutrition, salads, garnishes, meats, seafood and poultry, advanced baking and desserts. Level IV students receive instruction in cost control, purchasing, inventory, marketing, and global cuisines. Cooperative education opportunities are available for qualified students.

Certifications available: OSHA 10, ServeSafe, S/P2, ProStart level I and II.

#### HORTICULTURE/LANDSCAPING

Level I	#7571 3 credits
Level II (prerequisite Level I)	#7572 3 credits
Level III (prerequisites Level I & II)	#7573 3 credits
Level IV (prerequisites Level I, II & III)	#7574 3 credits

The Landscaping program has a combination of organized subject matter and practical experiences that prepares individuals to produce, process, and market plants, shrubs, and trees used principally for ornamental, recreational and

aesthetic purposes and to establish, maintain, and manage horticultural enterprises. Level I students are introduced to safety and person protective equipment (PPE), tool and equipment operation, plant identification, health and diseases, water resources, impacts of climate and weather on plant growth. Level II students continue with horticulture business opportunities, state and local laws, record keeping, nursing production and management, marketing and sales, sustainability, new technology and the history and impacts of horticulture on our culture and environment. As students advance to Level III, they receive instruction in uses of plants in other industries, careers, certifications, landscaping and hardscaping design, and lawn and turf management. Fourth year students are instructed in plant physiology and identification, soil science, and fertilization. Cooperative education opportunities are available for qualified students. Certifications available: OSHA 10, National Safe Tractor and Machinery Operation, PLNA Certified Horticulturist, Pennsylvania Private Pesticide Applicator.

#### MACHINE TECHNOLOGY \*(PA Registered Pre-Apprenticeship program)

Level I #7541 3 credits
Level II (prerequisite Level I) #7542 3 credits
Level III (prerequisites Level I & II) #7543 3 credits
Level IV (prerequisites Level I, II & III) #7544 3 credits

The Machine Trades program prepares individuals to apply technical knowledge and skills in all aspects of shaping metal parts. Instruction involves making computations relating to work dimensions, tooling and feeds, and speeds of machining. Level I students are introduced to safety and personal protective equipment (PPE), Safety Data Sheets, OSHA regulations, careers manufacturing, measurement, materials and safety, using rulers, calipers and micrometers and basic blueprint reading. Level II students move on to using a horizontal band saw, vertical milling, lathe and drill press operation. Third year students receive advanced instruction on manual machines including cutting threads, grinding, reaming and advanced blueprint reading. Fourth year students learn CNC operation, G & M code, machine set up and setting offsets. Cooperative education opportunities are available for qualified students.

Certifications available: National Institute of Metalworking Skills (NIMS) Level I (10 possible certifications).

#### MARKETING OPERATIONS & DISTRIBUTION

Level I #7331 3 credits
Level II (prerequisite Level I) #7332 3 credits
Level III (prerequisites Level I & II) #7333 3 credits
Level IV (prerequisites Level I, II & III) #7334 3 credits

The Marketing program provides instruction and experience in the fields of sales, distribution and marketing operations and focuses on the process and techniques of direct wholesale and retail buying and selling operations. Level I students begin with course with communications in the workplace, writing for business, promotion, displays, retail math, inventory and advertising. Level II students are instructed in the fundamentals of marketing, marketing plans, inventory control, point of sales systems, promotional marketing, sales and distribution. Level III students continue with stock handling, managing inventory, economics, entrepreneurship and finance. Fourth year students manage the school store, create portfolios, learn advanced sales and customer service as well as public speaking. All students in the Marketing program assist in the maintenance and operation of the Erie High Royals School Store. Cooperative education opportunities are available for qualified students. Certifications available: OSHA 10, Microsoft Office (Word, Power Point, Excel, Outlook, Publisher, One Drive), National Professional Certification in Customer Service and Sales, A\*S\*K Business Institute Fundamentals of Marketing, Advanced Customer Service and Sales, **Certified Rooms Division Specialist.** 

#### MEDICAL ASSISTANT

Level I #7631 3 credits Level II (prerequisite Level I) #7632 3 credits Level III (prerequisites Level I & II) #7633 3 credits Level IV (prerequisites Level I, II & III) #7634 3 credits

Erie High's Medical Assistant program prepares individuals to assist physicians by performing functions related to both administrative and clinical duties of a medical office. Level I students are introduced to basic safety and infection control, medical terminology and effective communication, as well as basic office skills. Level II students continue with Anatomy & Physiology, vital signs and measurements and basic clinical skills. Third year students are instructed in pharmacology, advanced medical lab techniques such as electrocardiography, physical therapy and emergency medical practices. Level IV students conclude the program with a survey of diseases and treatments, advanced lab skills, healthcare law and ethics. Cooperative education opportunities are available for qualified students.

Certifications available: OSHA, Bloodborne Pathogens, CPR/First Aid, Mandatory Reporter Certification, Patient Care Technician.

#### NURSING ASSISTANT

Level I #7501 3 credits Level II (prerequisite Level I) #7502 3 credits Level III (prerequisites Level I & II) #7503 3 credits Level IV (prerequisites Level I, II & III) #7504 3 credits

The Nursing Assistant program employs a combination of experiences designed to prepare students for entry-level employment as a home care attendant and/or nursing assistant under the supervision of a licensed health care professional.

Level I students begin with Anatomy & Physiology and basic nursing skills, including blood pressure, respirations and temperature. Level II students continue instruction with Medical Terminology and additional lab skills such as geriatric care, ambulation, transfers, range of motion and positioning. Third year students build on previous instruction with basic nursing assistant skills, including bathing, oral care, nutrition and toileting. Level IV students reinforce and practice nursing skills while learning about rehabilitation and restorative care, emergency first aid, diversity, human needs and end of life care. Cooperative education opportunities are available for qualified students

Certifications available: OSHA for Healthcare, CPR/First Aid, Bloodborne pathogens, and Direct Care Worker Certification.

#### PRE-ENGINEERING

Level I	#7351	3 credits
Level II (prerequisite Level I)	#7352	3 credits
Level III (prerequisites Level I & II)	#7353	3 credits
Level IV (prerequisites Level I, II & III)	#7354	3 credits

The Erie High Pre-Engineering program prepares students to apply basic engineering and scientific principles, mathematical concepts, and communication and technical skills in the support of a broad range of engineering activities. First year students are introduced to the engineering design process, computer aided drafting and modeling using Solidworks. basic electricity and precision measurement. Level II students explore a variety of engineering fields, including civil engineering, manufacturing, mechanical engineering and aerospace and kinematics. Level III students delve deeper into the specifics of the engineering design process, including modeling, predictive analysis, drawings, communications, gears, pulleys, linkages, fiber optics and energy conservation. Level IV students experience robotics, manufacturing systems, power, energy and green technology, and quality control. Cooperative education opportunities are available for qualified students.

Certifications available: OSHA for Manufacturing, FANUC Robotic Operator Certification

#### PROTECTIVE SERVICES

Level I	<b>#7661</b>	3 credits
Level II (prerequisite Level I)	#7662	3 credits
Level III (prerequisites Level I & II)	#7663	3 credits
Level IV (prerequisites Level I, II & III)	#7664	3 credits

The Erie High Protective Services program prepares students to apply technical knowledge and skills required to perform entry-level duties as a police officer, fire fighter, paramedic, and other safety services. First year students are introduced to the criminal justice system, basic emergency procedures, basic firefighting and exploration of careers in the protective services. Level II students continue with the juvenile justice system, corrections, dispatching and communication procedures, more advanced emergency medical procedures and homeland security. Level III students explore the law in

more depth, including due process, the PA Vehicle Code and crime scene investigation. They begin EMS training, as well as learn more advanced fire fighting and private security skills. Level IV students conclude the program with Incident Management Training, EMT training, and advanced firefighting. Cooperative education opportunities are available for qualified students.

Certifications available: CPR/First Aid; NIMS 100, 200, 700, 800; EMS/EMT, Person Protection (MDTS, MOAB, OCAT, PATH, PPBT).

#### SPORTS MEDICINE/REHAB AIDE

Level I	#7651	3 credits
Level II (prerequisite Level I)	#7652	3 credits
Level III (prerequisites Level I & II)	#7653	3 credits
Level IV (prerequisites Level I, II & III)	#7654	3 credits

The Sports Medicine/Rehabilitation Aide program at Erie High School is designed to prepare students for entry level employment in related health occupations with a focus on physical therapy, under the supervision of a licensed health care professional. Level I students begin with medical terminology, vital signs, and plyometric and stretching exercises. Level II students study anatomy and physiology and are introduced to athletic training skills. Third level students begin physical therapy theory and practice, including common injuries and treatment. Level IV students study psychomotor skills, signs/symptoms and treatments of injuries, and basic emergency medical procedures. Cooperative education opportunities are available for qualified students.

Certifications available: OSHA, CPR/First Aid, Physical Therapy Aide

#### WELDING TECHNOLOGY

Level I	#7551	3 credits
Level II (prerequisite Level I)	#7552	3 credits
Level III (prerequisites Level I & II)	#7553	3 credits
Level IV (prerequisites Level I, II & III)	#7554	3 credits

The Welding Technology program at Erie High prepares students to apply technical knowledge and skills in gas, arc, shielded and non-shielded metal arc, brazing, flame cutting, and plastic welding. Hand, semi-automatic, and automatic welding processes are also included in the instruction. Level I students begin with principals of welding, tools and equipment, and SMAW (Shielded Metal Arc Welding). Level II students learn GMAW (Gas Metal Arc Welding), blueprint reading and pipe SMAW. The third year students build on prior knowledge to learn FCAW (Flux-Cored Arc Welding), pipe GMAW, CNC plasma cutting, visual inspection and metallurgy. Level IV students conclude with GTAW (Gas Tungsten Arc Welding), CAC (Carbon Arc Cutting) and visual exam and inspection. Cooperative education opportunities are available: OSHA AWS D11 (3

Certifications available: OSHA, AWS D1.1 (3 certifications)

# EDGENUITY CREDIT RECOVERY

## **ENGLISH LANGUAGE ARTS**

English Language Arts English language arts courses are fully aligned to the Common Core. State versions are also available for states that have not adopted CCSS.

CYBER ENGLISH LANGUAGE ARTS 9 #1209 Grades: 10, 11, 12 (1 Credit)

Course Description: This freshman-year English course engages students in literary analysis and inferential evaluation of great texts both classic and contemporary. While critically reading fiction, poetry, drama, and literary nonfiction, students will master comprehension and literary-analysis strategies. Interwoven in the lessons across two semesters are activities that encourage students to strengthen their oral language skills and produce clear, coherent writing. Students will read a range of classic texts including Homer's The Odyssey, Shakespeare's Romeo and Juliet, and Richard Connell's "The Most Dangerous Game." They will also study short but complex texts, including influential speeches by Dr. Martin Luther King Jr., Franklin D. Roosevelt, and Ronald Reagan. Contemporary texts by Richard Preston, Julia Alvarez, and Maya Angelou round out the course.

CYBER ENGLISH LANGUAGE ARTS 10 #1210 Grades: 11, 12 (1 Credit)

Course Description: Focused on application, this sophomore English course reinforces literary analysis and twenty-first century skills with superb pieces of literature and literary nonfiction, application e-resources, and educational interactives. Each thematic unit focuses on specific literary analysis skills and allows students to apply them to a range of genres and text structures. As these units meld modeling and application, they also expand on training in media literacy, 21st century career skills, and the essentials of grammar and vocabulary. Under the guidance of the eWriting software, students also compose descriptive, persuasive, expository, literary analysis, research, narrative, and compare-contrast essays.

# CYBER ENGLISH LANGUAGE ARTS 11 #1211 Grade: 12 (1 Credit)

Course Description: This junior-year English course invites students to delve into American literature from early American Indian voices through contemporary works. Students engage in literary analysis and inferential evaluation of great texts as the centerpieces of this course. While critically reading fiction, poetry, drama, and expository nonfiction, students master comprehension and literary analysis strategies. Interwoven in the lessons across two

semesters are tasks that encourage students to strengthen their oral language skills and produce creative, coherent writing. Students read a range of short but complex texts, including works by Ralph Waldo Emerson, Emily Dickinson, Herman Melville, Nathaniel Hawthorne, Paul Laurence Dunbar, Martin Luther King, Jr., F. Scott Fitzgerald, Sandra Cisneros, Amy Tan, and Dave Eggers.

CYBER ENGLISH LANGUAGE ARTS 12 #1212 Grade: 12 #1212 (1 Credit)

Course Description: This senior-level English course offers fascinating insight into British literary traditions spanning from Anglo-Saxon writing to the modern period. With interactive introductions and historical contexts, this full-year course connects philosophical, political, religious, ethical, and social influences of each time period to the works of many notable authors, including Chaucer, William Shakespeare, Queen Elizabeth I, Elizabeth Barrett Browning, and Virginia Woolf. Adding an extra dimension to the British literary experience, this course also exposes students to world literature, including works from India, Europe, China, and Spain.

### **MATHEMATICS**

Mathematics courses are fully aligned to the Common Core. State versions are also available for states that have not adopted CCSS.

CYBER PRE-ALGEBRA #3211 Grades: 10, 11, 12 (1 Credit)

Course Description: This full-year course is designed for students who have completed a middle school mathematics sequence but are not yet algebra-ready. This course reviews key algebra readiness skills from the middle grades and introduces basic Algebra I work with appropriate support. Students revisit concepts in numbers and operations, expressions and equations, ratios and proportions, and basic functions. By the end of the course, students are ready to begin a more formal high school Algebra I study.

CYBER ALGEBRA I #3213 Grades: 10, 11, 12 (1 Credit)

Course Description: This full-year course focuses on five critical areas: relationships between quantities and reasoning with equations, linear and exponential relationships, descriptive statistics, expressions and equations, and quadratic functions and modeling. This course builds on the foundation set in middle grades by deepening students' understanding of linear and exponential functions and developing fluency in writing and solving one-variable equations and inequalities. Students will interpret, analyze, compare, and contrast functions that are represented numerically, tabularly, graphically, and algebraically. Quantitative reasoning is a

common thread throughout the course as students use algebra to represent quantities and the relationships among those quantities in a variety of ways. Standards of mathematical practice and process are embedded throughout the course, as students make sense of problem situations, solve novel problems, reason abstractly, and think critically.

CYBER GEOMETRY #3219 Grades: 10, 11, 12 (1 Credit)

Course Description: This course formalizes what students learned about geometry in the middle grades with a focus on reasoning and making mathematical arguments. Mathematical reasoning is introduced with a study of triangle congruency, including exposure to formal proofs and geometric constructions. Then students extend what they have learned to other essential triangle concepts, including similarity, righttriangle trigonometry, and the laws of sines and cosines. Moving on to other shapes, students justify and derive various formulas for circumference, area, and volume, as well as cross-sections of solids and rotations of two-dimensional objects. Students then make important connections between geometry and algebra, including special triangles, slopes of parallel and perpendicular lines, and parabolas in the coordinate plane, before delving into an in-depth investigation of the geometry of circles. The course closes with a study of set theory and probability, as students apply theoretical and experimental probability to make decisions informed by data analysis.

CYBER ALGEBRA II #3217 Grades: 10, 11, 12 (1 Credit)

Course Description: This course focuses on functions, polynomials, periodic phenomena, and collecting and analyzing data. The course begins with a review of linear and quadratic functions to solidify a foundation for learning these new functions. Students make connections between verbal, numeric, algebraic, and graphical representations of functions and apply this knowledge as they create equations and inequalities that can be used to model and solve mathematical and real-world problems. As students refine and expand their algebraic skills, they will draw analogies among the operations and field properties of real numbers and those of complex numbers and algebraic expressions. Mathematical practices and habits of mind are embedded throughout the course, as students solve novel problems, reason abstractly, and think critically.

CYBER FINANCIAL MATH #3235 Grades: 11, 12 (1 Credit)

Course Description: Connecting practical mathematical concepts to personal and business settings, this course offers informative and highly useful lessons that challenge students to gain a deeper understanding of financial math. Relevant, project-based learning activities cover stimulating topics such as personal financial planning, budgeting and wise spending,

banking, paying taxes, the importance of insurance, long-term investing, buying a house, consumer loans, economic principles, traveling abroad, starting a business, and analyzing business data. Offered as a two-semester course for high school students, this course encourages mastery of math skill sets, including percentages, proportions, data analysis, linear systems, and exponential functions.

CYBER TRIGONOMETRY #3245 Grades: 11, 12 (.5 Credit)

Course Description: In this one-semester course, students use their geometry and algebra skills to begin their study of trigonometry. Students will be required to express understanding using qualitative, quantitative, algebraic, and graphing skills. This course begins with a quick overview of right-triangle relationships before introducing trigonometric functions and their applications. Students explore angles and radian measures, circular trigonometry, and the unit circle. Students extend their understanding to trigonometric graphs, including the effects of translations and the inverses of trigonometric functions. This leads to the laws of sines and cosines, followed by an in-depth exploration of trigonometric identities and applications. This course ends with an introduction to the polar coordinate system, complex numbers, and DeMoivre's theorem.

### **SCIENCE**

CYBER ENVIRONMENTAL SCIENCE #4245 Grades: 10, 11, 12 (1 Credit)

Course Description: Environmental science is a captivating and rapidly expanding field, and this two-semester course offers compelling lessons that cover many aspects of the field: ecology, the biosphere, land, forests and soil, water, energy and resources, and societies and policy. Through unique activities and material, high school students connect scientific theory and concepts to current, real-world dilemmas, providing them with opportunities for mastery in each of the segments throughout the semester.

CYBER BIOLOGY #4211 Grades: 11, 12 (1 Credit)

Course Description: This compelling two-semester course engages students in the study of life and living organisms and examines biology and biochemistry in the real world. This is a yearlong course that encompasses traditional concepts in biology and encourages exploration of new discoveries in this field of science. The components include biochemistry, cell biology, cell processes, heredity and reproduction, the evolution of life, taxonomy, human body systems, and ecology. This course includes both hands-on wet labs and virtual lab options.

CYBER CHEMISTRY #4221 Grade: 12 (1 Credit)

Course Description: This rigorous, full-year course engages students in the study of the composition, properties, changes, and interactions of matter. The course covers the basic concepts of chemistry and includes eighteen virtual laboratory experiments that encourage higher-order thinking applications, with wet lab options if preferred. The components of this course include chemistry and its methods, the composition and properties of matter, changes and interactions of matter, factors affecting the interactions of matter, electrochemistry, organic chemistry, biochemistry, nuclear chemistry, mathematical applications, and applications of chemistry in the real world.

CYBER PHYSICAL SCIENCE #4241 Grades: 12 (1 Credit)

Course Description: This full-year course focuses on basic concepts in chemistry and physics and encourages exploration of new discoveries in the field of physical science. The course includes an overview of scientific principles and procedures and has students examine the chemical building blocks of our physical world and the composition of matter. Additionally, students explore the properties that affect motion, forces, and energy on Earth. Building on these concepts, the course covers the properties of electricity and magnetism and the effects of these phenomena. As students refine and expand their understanding of physical science, they will apply their knowledge to complete interactive virtual labs that require them to ask questions and create hypotheses. Hands-on wet lab options are also available.

CYBER PHYSICS #4231 Grades: 12 (1 Credit)

Course Description: This full-year course acquaints students with topics in classical and modern physics. The course emphasizes conceptual understanding of basic physics principles, including Newtonian mechanics, energy, thermodynamics, waves, electricity, magnetism, and nuclear and modern physics. Throughout the course, students solve mathematical problems, reason abstractly, and learn to think critically about the physical world. The course also includes interactive virtual labs and hands-on lab options, in which students ask questions and create hypotheses.

## **SOCIAL STUDIES**

CYBER WORLD HISTORY #2217 Grades: 10, 11, 12 (1 Credit)

**Course Description:** This yearlong course examines the major events and turning points of world history from ancient times to the present. Students investigate the development of classical civilizations in the Middle East, Africa, Europe, and

Asia, and they explore the economic, political, and social revolutions that have transformed human history. At the end of the course, students conduct a rigorous study of modern history, allowing them to draw connections between past events and contemporary issues. The use of recurring themes, such as social history, democratic government, and the relationship between history and the arts, allows students to draw connections between the past and the present, among cultures, and among multiple perspectives. Throughout the course, students use a variety of primary and secondary sources, including legal documents, essays, historical writings, and political cartoons to evaluate the reliability of historical evidence and to draw conclusions about historical events.

CYBER U.S. HISTORY #2219 Grades: 11, 12 (1 Credit)

Course Description: U.S. History is a yearlong course that examines the major events and turning points of U.S. history from the Industrial Revolution through the modern age. The course leads students toward a clearer understanding of the patterns, processes, and people that have shaped U.S. history. As students progress through each era of modern U.S. history, they will study the impact of dynamic leadership and economic and political change on our country's rise to global prominence. Students will also examine the influence of social and political movements on societal change and the importance of modern cultural and political developments. Recurring themes lead students to draw connections between the past and the present, between cultures, and among multiple perspectives.

CYBER CIVICS AND GOVERNMENT #2231 Grade: 12 (.5 Credit)

Course Description: This one-semester college-level course is designed to prepare students for the AP United States Government and Politics exam. Students will study the Constitutional underpinnings and structure of the United States government, issues of politics and political parties, and topics in civil rights and public policy, demonstrating their understanding and acquisition of skills through written work, project-based activities, and practice exams.

CYBER ECONOMICS #2233 Grade: 12 (.5 Credit)

Course Description: This course invites students to broaden their understanding of how economic concepts apply to their everyday lives—including microeconomic and macroeconomic theory and the characteristics of mixed-market economies, the role of government in a free-enterprise system and the global economy, and personal finance strategies. Throughout the course, students apply critical-thinking skills while making practical economic choices. Students also master literacy skills through rigorous reading and writing activities. Students analyze data displays and write routinely and responsively in tasks and assignments that are

based on scenarios, texts, activities, and examples. In more extensive, process-based writing lessons, students write full-length essays in informative and argumentative formats.

CYBER WORLD GEOGRAPHY #2217 Grades: 10, 11, 12 (1 Credit)

Course Description: Examining current global issues that impact our world today, this course takes a thematic approach to understanding the development of human systems, human understanding of the world, and human social organization. Divided into two semesters, this high school course will challenge students to develop geographic skills, including learning to interpret maps, analyze data, and compare theories. Offering interactive content that will grow students' understanding of the development of modern civilization and human systems—from the agricultural revolution to the technological revolution—this course encourages students to analyze economic trends as well as compare global markets and urban environments.

CYBER PSYCHOLOGY #2221 Grades: 11, 12 (1 Credit)

Course Description: This two-semester course introduces high school students to the study of psychology and helps them master fundamental concepts in research, theory, and human behavior. Students analyze human growth, learning, personality, and behavior from the perspective of major theories within psychology, including the biological, psychosocial, and cognitive perspectives. From a psychological point of view, students investigate the nature of being human as they build a comprehensive understanding of traditional psychological concepts and contemporary perspectives in the field. Course components include an introduction to the history, perspectives, and research of psychology; an understanding of topics such as the biological aspects of psychology, learning, and cognitive development; the stages of human development; aspects of personality and intelligence; the classification and treatment of psychological disorders; and psychological aspects of social interactions.

CYBER SOCIOLOGY #2237 Grades: 11, 12 (.5 Credit)

Course Description: Providing insight into the human dynamics of our diverse society, this is an engaging, one-semester course that delves into the fundamental concepts of sociology. This interactive course, designed for high school students, covers cultural diversity and conformity, basic structures of society, individuals and socialization, stages of human development as they relate to sociology, deviance from social norms, social stratification, racial and ethnic interactions, gender roles, family structure, the economic and political aspects of sociology, the sociology of public

institutions, and collective human behavior, both historically and in modern times.

### WELLNESS/FITNESS

CYBER CONTEMPORARY HEALTH #9215 Grades: 10, 11, 12 (.5 Credit)

Course Description: This high-school health offering examines and analyzes various health topics, including alcohol/drug use, physical fitness, healthy relationships, disease prevention, relationships, and mental health. Throughout the course, students examine practices and plans they can implement in order to carry out a healthy lifestyle, and the consequences they can face if they do not follow safe practices. Students also examine and analyze harassment and bullying laws. This course takes covers issues of sex and gender identity, same-sex relationships, contraception, and other sensitive topics.

CYBER HEALTHY LIVING #9215 Grades: 10, 11, 12 (.5 Credit)

Course Description: This high-school health offering examines and analyzes various health topics, including alcohol/drug use, physical fitness, healthy relationships, disease prevention, relationships, and mental health. Throughout the course, students examine practices and plans they can implement in order to carry out a healthy lifestyle, and the consequences they can face if they do not follow safe practices.



# Mobilizing Community, Igniting Excellence

148 West 21st Street Erie, PA 16502 814-874-6000

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