



2020-2021

Course Description Book

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UNION CITY AREA HIGH SCHOOL 2020-2021 COURSE SELECTION GUIDE

The following information has been prepared to assist students in the selection of courses for grades 9 through 12. Since students are given an opportunity to select many of the courses they will pursue in high school, it is necessary to form a plan or sequence of courses they will study. This educational plan should be developed carefully and should take into account such factors as the student's interests, abilities, educational, and vocational goals. It is the goal of the Guidance Department to assist students with the career development process which will ultimately better prepare students for productive employment and success in life. Students will become more familiar with career pathways and the courses that will provide the foundation to prepare them for employment or post-secondary training.

Personalized Learning

A personalized learning plan is tailored to students' interests, career pathways, and needs. It requires that students take more ownership of their learning as they grow and mature. The goal is for students to become more committed to their learning because they find it challenging, interesting, and meaningful. Additionally, this personalized learning focuses on the development of problem-solving and career development skills in an effort to increase critical thinking skills and prepare students for their future. Union City Area High School believes that the communication process is essential to the success of our students. It is important for students, parents, and educational staff to understand their roles and responsibilities in this learning process in order for it to be effective. Personalized learning may take the form of online classes, dual enrollment college courses, independent study courses, or blended-hybrid courses.

Traditional Courses - are those that meet face to face every scheduled day. Descriptions are found in the UCHS Course Selection Book. Use PowerSchool Online to register for these courses and then return the paper copy of course requests including parent/guardian signature.

Blended/Hybrid/Cyber Learning - These courses combine or mix modes of instruction and learning using online technology and physical face-to-face interaction. This can be seen in a course that has face-to-face learning designed for specific days and other days/times are for on-line components to be worked on inside or outside of the physical classroom. These courses have course platforms that can allow students to complete them as "Independent Study Courses". If the hybrid course involves a cyber (online) course, there is additional paperwork that the student and parent will need to complete. Typical blended courses are Drivers education, Computer II/Futures and SAT Prep.

Block Scheduling

On February 8, 1999, the Union City Area School District Board of Directors approved a change to block scheduling which began with the 1999-2000 school year. The type of schedule that Union City has implemented is called a 4 X 4 Block. In the 4 X 4 Block schedule, students can have anywhere from four-six classes during the first semester and four-six classes the second semester, depending on whether they are quarter classes or semester classes. Each block period is eighty-four minutes long. One benefit of this form of Block Scheduling is to reduce the number of courses that students have at one time, which should allow for a greater concentration of study for each course. The extra time in classes also allows students to take a more active role in their learning as well as have more time for lab work, greater use of technology, and more available time for guided practice and clarification of homework assignments.

- GENERAL INSTRUCTIONS -

Scheduling Process

Students will meet with the Guidance Counselor in groups to review this booklet and initiate the course selection process. Every student must complete their course selections via the computer. Included in the students scheduling requests should be courses the student needs to meet graduation requirements, including career pathway and other electives. Students are expected to obtain a parent signature on the Course Request Form in order to ensure approval of the student's course selections.

Parents with questions or concerns should call Mrs. Dawson, the High School Guidance Counselor, at 438-7673 ext. 5413, or email her at kdawson@ucasd.org.

Students are to return their Course Request Forms to the High School Guidance Office. The Counselor will review course selections and meet individually with students as needed.

Students should choose their courses very carefully, in consultation with parents, teachers and their guidance counselor. *Changes to students' schedules must be made no later than 2 school days after the start of the course and will only be made with a valid reason and approval by administration.

Requirements Beginning in the 2019-2020 School Year	9th & 10th Graders	11th & 12th Graders
English	4 Credits	4 Credits
Social Studies	3.5 Credits	3 Credits
Mathematics	4 Credits	4 Credits
Science	4 credits	4 credits
Physical Education	.5 Credits (CPR/ First Aid)	.5 Credits (CPR/ First Aid)
Health	1 Credit	1 Credit
Computer	1 Credit	1 Credit
STEM Courses	.5 Credit	1 Credit
Family/ Consumer Science	.5 Credit	.5 Credit
Electives (Career Pathway- 6, General- 3)	9 Credits	9 Credits
Total Credits for Graduation	28	28

GRADUATION REQUIREMENTS

1. Graduation will be based on the completion of sufficient courses in grades 9 to 12.
2. Students must schedule courses to fill 8 class periods per year or 4 block periods
3. Minimum credits in grades 9 through 12 can be earned as follows

Freshman Class of 2024

9th Grade	Credits	10th Grade	Credits
English 9	1.0	English 10	1.0
Modern US History	1.0	World History and Cultures	1.0
Science	1.0	Science	1.0
Math	1.0	Math	1.0
Physical Education (R)	0.5	STEM Course	0.5
Comp Appl I/Career (R)	0.5	Drivers Education elective	0.5
Modern Living I (R)	0.5	Electives - Career and General	3.0
Health 1 (R)	0.5		
Electives-Career Pathway	2.0		
11th Grade	Credits	12th Grade	Credits
English 11	1.0	English 12	1.0
Government/Civics	1.0	Economics	0.5
Science	1.0	Science	1.0
Math	1.0	Math	1.0
Health 11	0.5	*Computer App II /Futures (R)	0.5
Electives-Career & General	3- 3.5	Electives	4.0
*Computer App II /Futures (R)	.5	*Can be taken in 11 th or 12 th	

Sophomore Class of 2023

9th Grade	Yearly	10th Grade	Yearly
English 9	1.0	English 10	1.0
Modern US History	1.0	World History and Cultures	1.0
Science	1.0	Science	1.0
Math	1.0	Math	1.0
Physical Education	0.5	Health 1(R)	0.5
Comp Appl I/Career (R)	0.5	STEM Course	0.5
Modern Living I (R)	0.5	Drivers Education elective	0.5
Electives-Career Pathway	2.5	Electives - Career and General	2.5

Sophomore Class of 2023, continued			
11th Grade	Yearly	12th Grade	Yearly
English 11	1.0	English 12	1.0
Government/Civics	1.0	Economics	0.5
Science	1.0	Science	1.0
Math	1.0	Math	1.0
Health 2	0.5	Computer App II /Futures (R)	0.5
Electives-Career & General	3- 3.5	Electives	4.0
Computer App II /Futures (R) Can be taken in 11 th or 12 th	.5		

Class of 2021, 2022

11th Grade	Yearly	12th Grade	Yearly
English 11	1.0	English 12	1.0
Government/Civics	0.5	Economics	0.5
Science	1.0	Science	1.0
Math	1.0	Computer App II /Futures (R)	0.5
Health 11	0.5	Electives	4.0
Electives-Career & General	4.0	Math	1.0

* All students are also required to complete a research paper and graduation project. Students must also complete junior & senior requirements for job shadowing and college visits.

* Students must complete a minimum of three hours of **job shadowing** within their Career Pathway and associated with their senior project topic (beginning with class of 2021) with two separate individuals.

* Students are expected to interview the person they are shadowing and then complete a written summary of the learning experience.

* Verification of the Job Shadowing Experience must be provided with Date, Time, and Signature of the person who is providing the career shadowing.

* Forms are available with suggested interview questions and Proof of Job Shadow Experience in the guidance office. They should be obtained prior to going on the job shadow.

* Students must complete two **college or technical school campus** visits to meet UCASD Graduation Requirements, one of which can include attendance at a College/Career Fair and/or visit to a Military Recruiting Station.

* The form is available in the guidance office, please obtain the form prior to the visit as you will need to get a signature on it.

* All students must meet state standards and/or achieve proficiency on the Keystone Exams or the UCASD local assessments, or path to graduation for class of 2022 on.

* Up to 1 Credit of Computer Science/Information Technology can fulfill 1 Credit of Mathematics, with pre-approval.

* Some Graduation Requirements can be adjusted for ECTS Students based upon their schedule.

COMMENCEMENT PARTICIPATION

Any student who has not successfully completed all required credits, attendance, and proficiency testing for graduation will not be permitted to participate in commencement.

PROMOTION REQUIREMENTS

A core subject that is failed in any grade must be passed before being promoted to the next grade. Some required subjects failed in certain grades may be made up during the next school year if enough electives have been passed and scheduling permits. Otherwise, failed subjects must be passed utilizing approved online courses, or by a certified teacher prior to the next school year. All required subjects failed in grades 9 through 11 and the Keystone Assessments or UCASD test must be passed before a student can be promoted to grade 12.

REQUIRED AND ELECTIVE COURSES OFFERINGS

Not all courses are offered every year. Please check the course descriptions to determine if it is offered every year or every other year.

Key: * weighted course; > STEM elective course; + PL course options; (R) Required Elective

<u>Mathematics</u>	<u>Credit</u>	<u>English</u>	<u>Credit</u>
Integrated Math (A & B)	1 Math 1 Elective	English 9, 10, 11, and 12 are offered at 2 levels; General or Advanced; 10, 11, 12 Advanced are weighted	
Integrated Math	1		
Algebra I	1	English 9	1
Geometry	1	English 10	1
Algebra II	1	English 11	1
Trigonometry *	.5	English 12	1
Pre-Calculus*	1	Language Arts Fundamentals 1	1
Calculus *	1	Language Arts Fundamentals 2 and 3	1
Statistics	1	Media Production I	.5 Elective
Personal Finance	1	Media Production II	.5 Elective
Math Fundamentals (1, 2, & 3)	1	SAT Verbal Prep +	.25 Elective
SAT Math Prep +	.25 Elective	Yearbook	.5 Elective
		Creative writing	.5 Elective
<u>Science</u>	<u>Credit</u>		
General Science Gr 9	1	<u>Social Studies</u>	<u>Credit</u>
Biology	1	Modern US History 9 th	1
Applied Chemistry	1	World History and Cultures 10 th	1
Chemistry	1	Government / Civics 11 th	1
Environmental Science	1	Economics 12 th	.5
Chemistry	1	Advanced Economics 12 th	.5
Anatomy & Physiology *	1	Intro to Psychology	.5 Elective
Physics *	1	Intro to Criminal Justice	.5 Elective
Advanced Physics II*	1	Military and Digital History	.5 Elective
Advanced Chemistry II*	1		
Physics of Power Technology > +	1	<u>Foreign Language</u>	<u>Credit</u>
Physics in the Design World > +	1	Spanish I	1
Intro to Anatomy/Sports	.5 Elective	Spanish II	1
Forensic Biology >	.5 Elective	Spanish III *	1
Intro to Biomedical Science >	.5 Elective	Spanish IV *	1
Food Science	.5 Elective		
PA Wildlife Biology and Habitat	.5 Elective	<u>Art</u>	<u>Credit</u>
STEM Senior Capstone > +	.5	Drawing and Painting	.5
		Arts and Crafts	.5
		Ceramics 1	.5
<u>Health and Physical Ed</u>	<u>Credit</u>	Ceramics 2	.5
Health 1 (R)	.5	Stain Glass Design	.5
Health 2 (R)	.5	Weaving and Fibers	.5
Drivers Education	.5	Graphic Design I >	.5
Physical Education	.5	Graphic Design II >	.5
Recreational Activities	.5	Digital Photography	.5
Team Sports	.5		

Aquatics / Water Sports	.5	General Art I	.5
Physical Fitness	.5	Animation, Come Alive!	.5
Outdoor Recreational Activities	.5		
Leadership in Sport	.5	Music	Credit
Sports Wellness for Health	.5	Marching Band	.5
Intro to Public Health >	.5	Concert Band	.5
		Percussion Ensemble	.5
Family Consumer Science	Credit	Jazz Band	.5
Modern Living I (R)	.5	Chorus	.5
Culinary Essentials	.5	Guitar	.5
Baking Essentials	.5	Play Production/Musical	1
American Cuisine	.5	Business / Technology	Credit
Global Cuisine	.5	Comp Appl. I / Career Study + (R)	.5
		Computer App II / Futures + (R)	.5
Technology & Engineering	Credit	Web Design / Futures >	.5
Home Maintenance & Repair >	.5	Computer Program / Coding >	.5
Manufacturing Technology I >	.5	Design, Market, & Sell	.5
Design Engineering I >	.5	Accounting I	1
Design Engineering II >	.5	Accounting II	1
Intro to Robotics I >	.5		
Technical Drafting >	.5	ECTS TRAINING Programs	
Agriculture Power & Technology >	.5		
		Art Design for Business	10-12 gr
UCASD Technical Training Program		Auto Body Repair	10-12 gr
General Agriculture		Computer Programming	10-12 gr
Introduction to Agriculture	1	Construction Trades	10-12 gr
Food and Natural Resources >		Cosmetology	10-12 gr
Principles of Agri. Science - Animal	1	Culinary Arts & Food Service	10-12 gr
Principles of Agri. Science - Plant	1	Drafting & Design	10-12 gr
Agricultural Power and Technology >	.5	Early Childhood	10-12 gr
Supervised Agricultural Experience I	.5	Electrical Engineering	10-12 gr
Animal and Plant Biotechnology	1	Electronics	10-12 gr
Agriculture Leadership	1	Facility Maintenance Technologies	10-12 gr
Supervised Agricultural Experience II	.5	Graphic Communications	10-12 gr
Agricultural Marketing >	.5	Health Assistant	10-12 gr
Unique Opportunities:		Metal Fabrication	10-12 gr
RCI Dual Enrollment *	Begin in gr 11	Precision Machining	10-12 gr
Parker Hannifin Project	.5-1	Computer Networking	11-12 gr
See Guidance for separate paperwork		Tourism Hospitality Management	11-12 gr
		Work Transition	10-12 (IEP)

ADVANCED CLASSES AND WEIGHTED COURSES

The term “Advanced” is used to identify upper-level course offerings. Advanced courses are especially demanding, requiring higher-level thinking and greater homework. The weighting of grades is based on the difficulty of the course level and content. The following UCHS courses are weighted: **Physics, Anatomy & Physiology, Advanced Chemistry, Advanced Physics, Advanced English 10, Advanced Junior English, Advanced Senior English, Pre-Calculus, Trigonometry, Calculus, Spanish III & IV and RCI College/Dual Enrolment Courses.** The grading scale for these courses is based on the **5 point weighted scale.** Enrollment in these courses requires an “A or B” grade for the prerequisite course or a recommendation made by the

subject area teacher. However, **no more than twelve weighted courses taken at Union City High School and four RCI and NPRC Dual Enrollment courses (sixteen total classes) will be used to compute a student’s cumulative GPA using the weighted grading scale.**

*The UCASD administration is also authorized to establish differentiated quality points based upon the academic demands of specified high school courses. The District provides its course selection guide to students and parents, which outlines course descriptions for every course level for every subject. While Fundamentals, Essentials, and Standard courses emphasize the same general curriculum objectives, the material covered in Essentials and Fundamental courses are significantly less than the course content covered in Standard courses. Standard Courses also cover more difficult concepts and are taught at grade level rather than below grade level.

UCHS Grading Structure

Grade	Percentage	QPA Essentials & Fundamentals Scale	Quality Points Standard Scale	QPA Weighted Scale
A+	98-100%	3.5	4.0	5.0
A	93-97%	3.25	3.75	4.75
A-	90-92%	3.0	3.50	4.50
B+	88-89%	2.75	3.25	4.25
B	83-87%	2.50	3.0	4.0
B-	80-82%	2.25	2.75	3.75
C+	78-79%	1.75	2.25	3.25
C	73-77%	1.5	2.0	3.0
C-	70-72%	1.25	1.75	2.75
D+	68-69%	.75	1.25	2.25
D	63-67%	.50	1.0	2.0
D-	60-62%	.25	.75	1.75
F	59% & Below			

Latin Designation

4.01 and above – Summa Cum Laude

3.6 – 4.0 – Magna Cum Laude

3.4 – 3.59 – Cum Laude

Regional Choice Initiative (RCI)/Dual Enrollment Courses

Eligible students in grade 11, with Cumulative GPA of 3.5, and grade 12, with a Cumulative GPA of 3.25, enrolled in Advanced level courses will have the opportunity to take RCI/Dual Enrollment College Course Offerings. The college courses are recorded as 1.0 credit on the UCHS weighted scale and count as elective credit only. Course offerings vary each semester and are available through the High School Guidance Office to students meeting the eligibility requirements. Students are required to pay reduced college tuition fees per course (approx. \$400) and textbook costs for these courses.

Center for Pathways to the Future... Connecting Careers, Curriculum, and Community

The Pathways to the Future helps students explore the world, as well as their interests, strengths and weaknesses. The process of exploring careers is vital for students entering the 21st century global economy. At Union City High School, career exploration begins with awareness that different occupations exist. The Center for Post- Secondary & Career Discovery is designed to better guide students in setting career goals. Through our challenging curriculum, students will make the connection between high school academics and their future career choices. Students graduating from Union City High School will be prepared for their future careers and a more fulfilling tomorrow.

UCHS STEM ACADEMY (Phasing out 2022)

This academic program was designed to cultivate students' interest, awareness, and abilities in the Science, Technology, Engineering & Mathematics areas. Students were to meet specific eligibility requirements and submit an application for the Academy during the 4th quarter of Grades 8 or 9. Accepted students are required to maintain a cumulative 3.40 GPA and complete a specific number of STEM courses based upon their career choice. Academy students who successfully complete this program will receive a STEM certificate and be recognized at graduation with a medallion.

Beginning in 2023, **all** students will be recognized at graduation for their career pathway that they pursued during highschool. All students will receive a graduation cord for their chosen career pathway of study.

COLLEGE VISITS AND JOB SHADOWING

As part of UCHS graduation requirements all students in grades 11 &12 must visit and document at least 2 colleges and/or college-career fairs. Students must also complete a job shadowing experience prior to graduation. Visits are excusable from school with documentation. Paperwork for requests and requirements are available in the guidance office.

* All students are also required to complete a research paper and graduation project. Students must also complete junior & senior requirements for job shadowing and college visits.

* Students must complete a minimum of three hours of **job shadowing** within their Career Pathway and associated with their senior project topic (beginning with class of 2021) with two separate individuals.

- * Students are expected to interview the person they are shadowing and then complete a written summary of the learning experience.
- * Verification of the Job Shadowing Experience must be provided with Date, Time, and Signature of the person who is providing the career shadowing.
- * Forms are available with suggested interview questions and Proof of Job Shadow Experience in the guidance office. They should be obtained prior to going on the job shadow.
- * Students must complete two **college or technical school campus** visits to meet UCASD Graduation Requirements, one of which can include attendance at a College/Career Fair and/or visit to a Military Recruiting Station.
- * The form is available in the guidance office, please obtain the form prior to the visit as you will need to get a signature on it.

COLLEGE ENTRANCE REQUIREMENTS

Graduation from high school does not necessarily qualify a student for admission to a college or professional school. Each student desiring admission to a college, university, or professional school must select those subjects which meet the admission requirements of the school of their choice. Post-secondary schools have minimum GPA requirements and do not accept any courses with grades below 70%.

Although college entrance requirements vary among the different colleges and professional schools, a majority of schools require: English - 4 credits; Mathematics - 3 credits (Algebra I & II, and Geometry); Foreign Languages - 2 credits; (required in about 50% of the schools--recommended in three or four-year sequence); Social Studies - 3 credits; Science- 3 credits (includes biology and chemistry with lab). Elective subjects vary with different schools and the major course of study. Specific information can be obtained by reviewing the college or university catalogues or by consulting the guidance counselor. Students should also complete 1-4 college entrance examinations, such as the SAT's (www.collegeboard.com) or ACT's (www.actstudent.org) during the spring of their junior year. Registration information for these exams is also available in the high school guidance office.

UCHS CAREER PATHWAYS

Arts and Communications (AC) Pathway

This Pathway is intended to cultivate student awareness, interpretation, application and production of visual arts. Students choosing this pathway will gain experience in their chosen career focus based upon initiatives that relate theory to practice.

Are you interested in...	Can you...	Do you enjoy...
<ul style="list-style-type: none"> • News reporting and writing • Interviewing and reviewing • Multi-media productions • Acting • Radio, TV, Film, Video • Performing in a band or chorus • Attending concerts • Drawing, painting • Artwork 	<ul style="list-style-type: none"> • Sing • Play an instrument • Be creative • Act • Articulate clearly • Write and conduct interviews • Meet deadlines • Sell • Draw • Sculpt 	<ul style="list-style-type: none"> • Writing • Making videos • Working with film props • Seeking creative ideas • Working with sound effects • Performing in front of an audience • Working with computers

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

SAMPLE CAREERS

Entry	Technical/Skilled	Professional (4+ college)
<ul style="list-style-type: none"> • Model • Radio operator • Stage hand • Stunt performer • Announcer • Dancer • Film loader • Photographer • Floral designer • Florist • Sound technician • TV, Video, and movies • Desktop publisher • Copy person • Newsroom worker 	<ul style="list-style-type: none"> • Actor • Illustrator • Choreographer • Dancer • Disc jockey • Musician • Animator • Artist • Broadway technician • Fashion designer • Jeweler • Make-up artist • Recording Engineer • Video manager • Computer graphic artist • Web designer • Desktop publisher 	<ul style="list-style-type: none"> • Art or music teacher • Cinematographer • Composer • Film editor • Multi-media artist • Music critic • Music director • News broadcaster • Producer and director • Editor • Curator • Advertising creator • Art director • Interior designer • Fashion designerIndustrial designer • Copywriter • News writer • Telecommunications • Writer

Arts and Communications (AC) Pathway

Possible Course Sequencing

9th	10th	11th	12th
English 9	English 10	English 11	English 12
Modern US History	World Cultures	Civics and Government	Economics
Biology General Science 9	Biology Chemistry	Physics Chemistry	Advanced Physics Anatomy and Physiology Environmental Science Chemistry I
Algebra I, Geometry, Integrated Math A & B	Algebra I, Algebra II, Geometry	Pre-Calc and Trig Trigonometry Geometry Accounting	Calculus PreCalc and Trig Accounting I or II Personal Finance
PE Health 1		Health 2	Health 2
Computer I/Career		Computer II/Careers	Computer II/Careers
Modern Living (FCS)			
Electives (2 credits)	Electives (4 credits)	Electives (3 credits)	Electives (4 credits)
Pathway focused Electives: (Read course descriptions for specific requirements and prerequisites)			
Drawing and Painting	Arts and Crafts	Ceramics	Graphic Design I & II
Digital Photography	General Art I	Animation, Come Alive!	Chorus
Creative Writing	Media Production I & II	Yearbook	Marching Band
Jazz Band	Percussion	Guitar	Personal Finance
Erie County Technical School			
	Graphic Communications 10	Art and Design for Business 11	Graphic Communications 12
	Art and Design for Business 10		Art and Design for Business 12

Business, Finance, and Information Technology (BFIT) Pathway

This Pathway is designed to prepare students in the world of business, finance, and information services. School based and work based opportunities will provide students with knowledge, skills and abilities necessary to move onto post- secondary school or directly into the workforce.

Are you interested in...	Can you...	Do you enjoy...
<ul style="list-style-type: none"> ● A business environment ● Office management ● Sales ● Computers and technology ● Presentations to groups ● Telecommunications ● Advertising ● Different work sites ● Record keeping 	<ul style="list-style-type: none"> ● Work easily with others ● Organize your time ● Work with statistics ● Use computers and other technology ● Pay attention to details ● Solve problems ● Work independently ● Show initiative ● Work on a team 	<ul style="list-style-type: none"> ● Meeting with groups ● Making budgets ● Organizing a project ● Planning an event ● Working with technology ● Selling products and services ● Processing numbers ● Preparing financial reports ● Following directions ● Learning new software programs

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

SAMPLE CAREERS

Entry	Technical/Skilled	Professional (4+ college)
<ul style="list-style-type: none"> ● Customer service ● Representative ● Shipping and receiving clerk ● Telemarketer ● Advertising sales agent ● Bank teller ● Cashier ● Payroll clerk ● Title searcher ● Computer operator ● Accounts payable manager ● Administrative assistant ● Data entry ● Retail sales clerk ● Secretary ● Account executive 	<ul style="list-style-type: none"> ● Computer salesperson ● Graph designer ● Retail technician ● Bank collection officer ● Claims adjuster ● Legal secretary ● Tax preparer ● Paralegal ● Computer support specialist ● Software engineer ● Computer programmer ● Production support analyst ● Desktop publisher ● Medical secretary ● Real estate agent ● Restaurant manager ● Sales representative 	<ul style="list-style-type: none"> ● Marketing manager ● Certified public accountant ● Economist ● Financial manager ● E-commerce analyst ● Securities sales representative ● Systems software engineer ● Systems analysis ● Hospital administrator ● Human resources ● Manager ● Chief executive officer ● Manufacturing sales ● Representative ● Business analysts ● Project manager ● Sports and entertainment agent ● Actuary

Business, Finance, and Information Technology (BFIT) Pathway

Possible Course Sequencing

9th	10th	11th	12th
English 9	English 10	English 11	English 12
Modern US History	World Cultures	Civics and Government	Economics
Biology, General Science 9	Biology Chemistry	Physics Chemistry	Advanced Physics Anatomy and Physiology Environmental Science Chemistry I
Algebra I Geometry Integrated Math	Algebra I Algebra II Geometry	Pre-Calculus Trigonometry Geometry Accounting I	Calculus PreCalculus Accounting I or II Personal Finance
PE Health 1		Health 2	Health 2
Computer I/Career		Computer II/Careers	
Modern Living (FCS)			
Electives (2 credits)	Electives (4 credits)	Electives (3 credits)	Electives (4 credits)
Pathway focused Electives: (Read course descriptions for specific requirements and prerequisites)			
Design Engineering	Web Design /Futures	Accounting I & II	Intro to Statistics
Media Production I & II	Graphic Design I & II	Design, Market, Sell	Agricultural Marketing
Robotics	Computer Program / Coding		
Erie County Technical School			
	Electronics 10	Electronics 11	Electronics 12
	Computer Programming 10	Computer Programming 11	Computer Programming 12
	Art and Design for Business 10	Art and Design for Business 11	Art and Design for Business 12
	Graphic Communications 10	Computer Networking	Computer Networking
		Graphic Communications 11	Graphic Communications 12

Technology & Engineering (TE) Pathway

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

Are you interested in...	Can you...	Do you enjoy...
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<ul style="list-style-type: none"> • Building and construction • Tools, equipment and materials • Woodworking • Math and science classes • Fitness and sports • Precision work • Design and architecture • Engineering • Computer technology • Production management • How things work 	<ul style="list-style-type: none"> • Apply science and math to the real world • Read and understand directions • Solve problems • Understand and read maps • Organize reports and people • See a task through to completion • Use a computer 	<ul style="list-style-type: none"> • Travel • Working with your hands • Designing/working with projects, models, and prototypes • Working in a lab • Working on a team • Operating tools and equipment • Paying close attention to detail
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If you answered “yes” to many of these questions, you might consider a future in one of the sample occupations listed below.

SAMPLE CAREERS

Entry	Technical/Skilled	Professional (4+ college)
<ul style="list-style-type: none"> • Carpet installer • Drywall worker • Roofer • Machine operator • Industrial machine mechanic • Baggage handler • Dock worker • Freight handler • Laborer • Warehouse worker 	<ul style="list-style-type: none"> • Grader and dozer operator • Electrical technician • Metal engineering technician • Supervisor • Welder • Civil engineering technician • Robotics technician • CAD/CAM technician • Laser technician • Auto mechanic • Air traffic controller • Auto body repair • Bus driver • Diesel mechanic • Dispatch • Motorcycle mechanic • Taxi driver • Truck driver • Truck terminal manager • Production and operating worker 	<ul style="list-style-type: none"> • Construction manager • Cost estimator • Industrial production manager • Purchasing agent • Astronaut • Nuclear engineer • Petroleum engineer • NASA scientist • Chemical engineer • Technical writer • Architect • Civil engineering • Industrial engineering • Mechanical engineering • Aeronautical engineer • Aerospace engineer • Airline pilot • Transportation engineer • Navigator
Apprenticeships		
<ul style="list-style-type: none"> • Brick mason • Carpenter • Electrician • HVAC • Plumber • Machinist • Surveyor • Diesel Mechanic 		

Technology & Engineering (TE) Pathway

Possible Course Sequencing

9th	10th	11th	12th
English 9	English 10	English 11	English 12
Modern US History	World Cultures	Civics and Government	Economics
Biology General Science 9	Biology Chemistry	Physics Chemistry	Advanced Physics Anatomy and Physiology Environmental Science Chemistry I
Algebra I Geometry Integrated Math	Algebra I Algebra II Geometry	Pre-Calculus Trigonometry Geometry Accounting I	Calculus PreCalc Accounting I or II Personal Finance
PE Health 1		Health 2	Health 2
Computer I/Career		Computer II/Careers	
Modern Living (FCS)			
Electives (2 cr)	Electives (4 credits)	Electives (3 credits)	Electives (3.5 credits)
Pathway focused Electives: (Read course descriptions for specific requirements and prerequisites)			
Robotics	Manufacturing Technology	Design Engineering	Home Maintenance & Repair
Ag Power & Tech	Web Design / Futures	Computer Program/Coding	Design, Market, Sell
Intro to Biomedical Sci	Graphic Design		Parker Hannifin Project
Erie County Technical School			
	Drafting and Design 10	Drafting and Design 11	Drafting and Design 12
	Metal Fabrication 10	Metal Fabrication 11	Metal Fabrication 12
	Automotive Body 10	Automotive Body 11	Automotive Body 12
	Construction Trades 10	Construction Trades 11	Construction Trades 12
	Electrical Engineering 10	Electrical Engineering 11	Electrical Engineering 12
	Facilities Maintenance 10	Facilities Maintenance 11	Facilities Maintenance 12
	Electronics 10	Electronics 11	Electronics 12
	Precision Machining 10	Precision Machining 11	Precision Machining 12
	Automotive Technology 10	Automotive Technology 11	Automotive Technology 12

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...
<ul style="list-style-type: none"> • Working with people • Owning your own business • Aging adults • Child development • Family and social services • Food preparation • Teaching • Counseling 	<ul style="list-style-type: none"> • Organize well • Plan and direct programs • Be creative • Communicate well • Assume leadership roles • Work with a team • Be conscientious and dependable • Plan budgets 	<ul style="list-style-type: none"> • Communication services • Helping and protecting others • Working with people • Counseling and advising people • Serving other's needs • Interviewing people • Selling products or services • Handling customer complaints • Human problems

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

SAMPLE CAREERS

Entry	Technical/Skilled	Professional (4+ college)
<ul style="list-style-type: none"> • Child care worker • Cosmetic representative • Dry cleaning operator • Home health aide • Library assistant • Teacher's assistant • Postal services worker • Security guard • Utility worker • Aerobics instructor • Waitress • Baker • Travel agent 	<ul style="list-style-type: none"> • Barber • Cosmetologist • Fashion designer • Manicurist • Massage therapist • Mortician • Truck driver • Personal trainer • Teacher's aide • Fire-fighter • Postmaster • Police officer • Flight attendant • Chef 	<ul style="list-style-type: none"> • Funeral director • Therapist • Counselor • Professor • Principal • Teacher • Criminologist • FBI agent • Lawyer • Police officer • Park ranger • Executive chef • Food services manager • Hotel/motel management

Human Services (HS) Pathway

Possible Course Sequencing

9th	10th	11th	12th
English 9	English 10	English 11	English 12
Modern US History	World Cultures	Civics and Government	Economics
Biology General Science 9	Biology Chemistry	Physics Chemistry	Advanced Physics Anatomy and Physiology Environmental Science Chemistry I
Algebra I Geometry Integrated Math	Algebra I Algebra II Geometry,	Pre-Calc and Trig Trigonometry Geometry Accounting	Calculus PreCalc and Trig Accounting I or II Personal Finance
PE Health 1			Health 2
Computer I/Career		Computer II/Careers	
Modern Living (FCS)			
Electives (2 cr)	Electives (4 credits)	Electives (4 credits)	Electives (4 credits)
Pathway focused Electives: (Read course descriptions for specific requirements and prerequisites)			
Team Sports	Aquatics/Water Sports	Sports Wellness for Health	Recreational Activities
Intro to Psychology	Intro to Criminal Justice	Military & Digital History	Culinary Essentials
Intro to Statistics	Personal Finance	Forensic Biology	Baking Essentials
Graphic Design	Media Production	Creative Writing	Intro to Biomedical Science
Design, Market, Sell	Food Science	Intro to Anatomy/Sports	PA Wildlife Biology & Habitat
Erie County Technical School			
	Cosmetology 10	Cosmetology 11	Cosmetology 12
	Culinary Arts 10	Culinary Arts 11	Culinary Arts 12
	Early Childhood Education 10	Early Childhood Education 11	Early Childhood Education 12
	Tourism and Hospitality Mgmt. 10	Tourism and Hospitality Mgmt. 11	Tourism and Hospitality Mgmt. 12

Science and Health (SH) Pathway

This Pathway is designed to cultivate students' interests in the life, physical and behavioral sciences. In addition, it involves the planning, managing, and producing of therapeutic services, diagnostic services, health information and biochemistry research and development.

Are you interested in...	Can you...	Do you enjoy...
<ul style="list-style-type: none"> • Health care environment • Science and medicine • Medical research • Food production • Environment and conservation • Pharmacy • Animals • Physical therapy • Sports and fitness • Information systems • Radiology 	<ul style="list-style-type: none"> • Pay attention to detail • Use a computer and technology • Work in a lab setting or medical facility • Apply scientific theory to real life problems • Work outdoors around animals and plants • Collect and analyze data from experiments • Work with people in need • Work with science and math theories 	<ul style="list-style-type: none"> • 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 many of these questions, you might consider a future in one of the sample occupations listed below.

SAMPLE CAREERS

Entry	Technical/Skilled	Professional (4+ college)
<ul style="list-style-type: none"> • Hospital worker • Patient care technician • Dialysis technician • EEG technician • Home health aide • Nurse's aide, orderlies • Pharmacy technician • Physical therapy aide • Animal caretaker • Breeder • Extension service worker • Wildlife reserve worker • Optician • Data Entry • Farmer 	<ul style="list-style-type: none"> • Certified nursing assistant • Dental hygienist • Emergency medical technician • Licensed practice nurse • Medical lab technician • Personal trainer • Radiological technician • Respiratory therapist • Dental lab technician • Fish and game worker • Forest conversationalist • GPS technician • Surveyor • Veterinary Technician 	<ul style="list-style-type: none"> • Athletic trainer • Speech/Language pathologist • Dietician • Physician assistant • Medical examiner • Pharmacist • Physician • Registered nurse • Marine biologist • Soil conversationalist • Veterinarian • Chemist • Environmental scientist • Zoologist • Nuclear engineer

Science and Health (SH) Pathway

Possible Course Sequencing

9th	10th	11th	12th
English 9	English 10	English 11	English 12
Modern US History	World Cultures	Civics and Government	Economics
Biology General Science 9	Biology Chemistry	Physics Chemistry	Advanced Physics Anatomy and Physiology Environmental Sci
Algebra I Geometry Integrated Math	Algebra I Algebra II Geometry	Pre-Calculus Trigonometry Geometry Accounting	Calculus, Pre-Calculus Accounting I or II Personal Finance Computer Science
PE Health 1			Health 2
Computer I/Career		Computer II/Careers	
Modern Living (FCS)			
Electives (2 credits)	Electives (4 credits)	Electives (4 credits)	Electives (4 credits)
Pathway focused Electives: (Read course descriptions for specific requirements and prerequisites)			
Intro to Anatomy of Sports	Forensic Biology	Intro to Biomedical Science	Sports Wellness for Health
Intro to Psychology	Intro to Criminal Justice	Digital Photography	Design Engineering
Recreational Activities	Team Sports	Aquatics/Water Sports	Intro to Agriculture Food and Natural Resources
Principles of Ag – Plant	Principles of Ag – Animals	Ag Power and Tech	Animal and Plant Biotechnology
Design Engineering I&II	Internship	PA Wildlife Biology & Habitat	
Erie County Technical School			
	Health Assistant 10	Health Assistant 11	Health Assistant 12
Union City Career Technical Program			
General Agriculture 9	General Agriculture 10	General Agriculture 11	General Agriculture 12

STEM ACADEMY

This Academy was designed to cultivate students' interests, awareness and application as related to STEM (science, technology, engineering, and mathematics) careers. STEM courses will be integrated into the five main pathways. The "stand alone" academy will be phased out with the current tenth grade students. Students accepted into the program have specific courses that are required depending upon their career choice. Courses typically thought of as STEM courses will continue to be offered to any student who meets the prerequisites.

STEM ACADEMY CAREER PATHWAY UCASD

10th	11th	12th
English 10	English 11	English 12
World Cultures	Civics and Government	Economics
Biology Chemistry	Physics Chemistry	Advanced Physics Anatomy and Physiology Environmental Science Chemistry I
Algebra I Algebra II Geometry	Pre-Calculus Trigonometry Geometry Accounting	Calculus PreCalculus Accounting I or II Personal Finance
	Computer II/Careers	Health 2
Electives (4 credits)	Electives (4 credits)	Electives (4 credits)
Pathway focused Electives: (Read course descriptions for specific requirements and prerequisites)		
Intro to Biomedical Science	Home Maintenance & Repair	Manufacturing Technology
Robotics	Ag Power & Tech	Web Design / Futures
Design, Market, Sell	Ag. Marketing	STEM Senior Capstone

AGRICULTURE CAREER TECHNICAL PATHWAY UCASD

Any student may enroll in an Agriculture class who may have an interest in Animal or Plant Science. If students complete the entire program, they will be required to take the NOCTI test and with a passing score, may earn college credit from certain Universities or Colleges.

9th	10th	11th	12th
English 9	English 10	English 11	English 12
Mod American History	World Cultures	Civics and Government	Economics
Biology General Science 9	Biology Chemistry	Physics Chemistry	Advanced Physics Anatomy and Physiology Environmental Science Chemistry I
Algebra I Geometry Integrated Math	Algebra I Algebra II Geometry	Pre-Calculus Trigonometry Geometry Accounting	Calculus PreCalculus Accounting I or II Personal Finance
PE Health 1			Health 2
Computer I/Career		Computer II/Careers	
Modern Living (FCS)			
Electives (2 credits)	Electives (4 credits)	Electives (4 credits)	Electives (4 credits)
Intro to Ag Science	Agricultural Power and Technology	Animal and Plant Biotechnology	Agricultural Marketing
Principles of Ag Science – Animal	Principles of Ag Science - Plants	Agriculture Leadership	Horticulture
SAE			

Before scheduling it is important to check course descriptions, prerequisites, and other requirements.

Prerequisites--Certain courses at Union City Middle/High School have prerequisites. Subjects I, II, III, IV sequence imply increasing difficulty and must be taken in order. Some courses require students to have successfully completed a specific previous course with at least an "A, B, or C" average or require the recommendation of a teacher. If the course that is a prerequisite is dropped, that will affect your ability to take the next course. Please speak with a guidance counselor or administrator if you have a question.



COURSE DESCRIPTIONS

The District reserves the right to delete, alter, or change any course offering due to change in interest, enrollment, or other unforeseen factors.

Courses that are offered in alternating years are offered in odd/even years. The year of the start of school determines if it is odd or even, ex: fall 2020-even, fall 2021-odd.

ART

GENERAL ART Grades 9-12 (.5 cr) This introductory course is an elective that will prepare the student for further high school art experiences. The student will be introduced to skills and media that are utilized in the other art electives including: drawing, painting, ceramics, the elements and principles of design, color theory, the critical process, and keeping a sketchbook journal.

ARTS & CRAFTS Grades 9-12 (.5 cr) This class will explore the planning and making of a variety of craft items. Each student will develop his/her skills and manual dexterity in the use of tools and materials by making a variety of useful and functional crafts. Exposure in the class will be from different ages and cultures around the world. A variety of three-dimensional lessons will be explored through crafts such as weaving, basketry, sculpture, and Paper Mache.

DRAWING & PAINTING Grades 9-12 (.5 cr) The course is built around a series of problems designed to enhance drawing and painting ability by developing skills in shading, color mixing, and perspective. The content of this class is to provide varied drawing & painting, experiences using a variety of different media. Emphasis is placed on the ability to observe, distinguish and relate to spatial relationships. The student will become familiar with important Artists and movements in art history. Students will learn matting and presentation of finished artwork. The class will include on site drawings outdoors as well as the continued study and rendering of Union City's historic buildings.

CERAMICS I Grades 9-12 (.5 cr) This class will explore the making of aesthetic and utilitarian articles from fired clay. Each student will learn to manipulate clay in a variety of hand-building and wheel-thrown techniques. They will expand their own artistic expression through glazing and firing of their product. The class will study the history and decoration of pottery around the world.

CERAMICS 2 Grades 10-12 (.5 cr) This course will delve deeper into sculptural forms. Students will be able to use special glazes. Students will be permitted to experiment with firing techniques and clay bodies. Prerequisite: Ceramics I with a "B" or better grade and/or teacher recommendation. Course cannot be taken more than **once** a year.

GRAPHIC DESIGN I > Grades 9-12 (.5 cr) Students will use both Adobe Illustrator and Adobe InDesign to create vector graphics in a hands-on, project based course. A visual journal will be provided to each student so that ideas and progress can be easily documented. Class content includes Graphic Design Theory, Typography, Illustration, Color Theory, Advertising, Logo Design, and Page Layout. Most assignments will be completed in class. Students will develop creative habits, gain an understanding of what “good design” is, and be able to apply creative thinking to their own work. This course meets PA Standards for the Arts and Humanities.

GRAPHIC DESIGN II > Grades 10-12 (.5 cr) This advanced course builds on the content from Graphic Design I. Students will dive deeper into Adobe Illustrator and Adobe InDesign to create original vector based artwork. Students will develop ideas through the design process and document their progress within a visual journal. Advanced projects may include Packaging Design, Branding, Advanced Color Theory, Advanced Typography, and Designing a document with multiple pages. This course meets PA Standards for the Arts and Humanities.. Prerequisite: Graphic Design I with a “B” or better grade and/or teacher recommendation. Course cannot be taken more than once a year.

STAIN GLASS DESIGN Grades 10-12 (.5 cr) This advanced class will explore designing, cutting, and soldering stained glass into several projects. The class will also work together on a large stained glass window that will be installed into the school permanently.

WEAVING & FIBERS Grades 9-12 (.5 cr) Students will design and create soft art work with all types of fiber crafts including weaving, macrame, batik, tapestry, and fabric painting. Students will make utilitarian and decorative projects such as rugs, afghans, bags, and wall hangings. Lab Fee \$10.00 min

DIGITAL PHOTOGRAPHY Grades 10-12 (.5 cr) This is a basic course in photography where students will learn how to properly use a digital SLR camera to compose and capture original photos. Students will learn to adjust camera settings for greater creative and technical control in photographic composition: Aperture, Focus, Resolution, ISO, and Shutter Speed. Once students have mastered taking quality pictures, the original photographs will be edited with Adobe Photoshop. Students will learn how to give their photos a professional edge with editing techniques. Class content includes the History of Photography, the Mechanics of a Camera, creating Composite Images, and Working with Layers, Masks, and Filters. Students will also participate in critiques to examine images critically. This course requires some photographs to be taken outside of the classroom as homework. This course meets PA Standards for the Arts and Humanities. Students are encouraged to use their own Digital SLR cameras. A limited number of school owned cameras and memory cards will be available for students to use during this course.

ANIMATION, COME ALIVE! Grades 11-12 (.5 cr) Students do not need to know how to draw for this course! Students will learn how to make a subject come alive using the tools in the art and computer classroom. Students will create and direct short video stories and upload them to view publicly. Students will build animation toys, work in various animation mediums of hand drawn, pixilation, stop-motion (LEGO), and clay. Students will move into 3D animation using different tools. The course will incorporate scriptwriting, storyboarding, history of animation, computer technology, kinesiology, locomotion, frame counting, and timing of motion. Students will have the option to use topics from other courses as subjects for their animated films

BUSINESS/TECHNOLOGY EDUCATION

CAREER/COMPUTER APPLICATIONS I Grades 9 (.5 cr) This required course uses the Windows and Google application software. The student will learn the basic skills for Microsoft Word, PowerPoint, Publisher and Excel, as well as their Google counterparts, and utilize the computer to generate assignments. The student will also identify their interests, abilities and work values through a variety of assessment tools including Xello and Everfi Programs and the Succeeding In The World of Work textbook, then use the resulting information to research and develop career portfolios. This course is designed to achieve PDE-CEW (career) standards with supporting artifacts.

CAREER/COMPUTER APPLICATIONS II /FUTURES Grades 11-12 (.5 cr) This required course uses the Windows and Google application software. The students will learn intermediate and advanced skills for Word, PowerPoint, Publisher, and Excel, as well as their Google counterparts, and utilize the computer to generate assignments. The student will participate in a variety of activities to prepare them for the transition from high school to a future career. Included in this class will be resume writing, interview skills & other career-ready skills needed in any work environment. Students will develop their career portfolios and utilize the Xello and Everfi Programs, and Succeeding In The World of Work textbook. This course is designed to achieve PDE-CEW (career) standards with supporting artifacts.

WEB DESIGN /FUTURES > Grades 11-12 (.5 cr) The Web Design class provides an introduction to the design, creation, and maintenance of web pages and websites. During this 9-week class, students learn how to critically evaluate website quality, learn how to create and maintain quality web pages, learn the importance of web design standards, and learn how to create and manipulate images. Students will be required to complete a culminating project in which they design and create their own website. Students will develop their career portfolios and utilize the Xello and Everfi programs. This course is aligned with the PDE-CEW (career) standards and supporting artifacts. Prerequisites: Algebra I & II, Previous Computer Course

ACCOUNTING I Grades 10-12 (1 cr) Accounting I is a beginning course which gives the student a knowledge of the basic accounting principles. It teaches the student new business practices, business terms and methods of recording and reporting business records. The students will experience hands-on applications using both manual and automated accounting systems. This course can be credited toward meeting a student's fourth math requirement.

ACCOUNTING II Grades 11-12 (1 cr) This course has the student moving from the simple to the complex aspects of accounting. This advanced course is specifically vocational and career oriented. It is planned for the student who has the following objective: To go to post-secondary education and to major in accounting, marketing, management, or business procedures and business records so that as a future business owner or manager, he/she can direct an organization and interpret business records. Prerequisite: Accounting I grade "B" or better and teacher recommendation

DESIGN, MARKET & SELL > Grades 10-12 (.5 cr) This class provides students with the opportunity to conceptualize a product; design a prototype; and market, manufacture, and deliver the product. Students will use AutoCad computer program, Laser Engraver, and 3D Printer to design and manufacture their product(s). Additionally, they will keep records using QuickBooks small business software. Examples of possible production items include: plaques, name plates, glassware, trophies, awards, signs, pens, key chains, or stamps. Some items may be manufactured entirely by the students; others will be purchased items that may be engraved by the students.

PARKER HANNIFIN PARTNERSHIP Grade 11, 12 A work experience has been organized with the cooperation of Parker Hannifin to provide the student/learner who has the proper qualifications with the opportunity to further his knowledge and skill in the chosen occupational field during the school year. The student/learner will participate Monday through Friday for one –two blocks either at the beginning or end of the school day. They also will receive one elective credit each semester towards graduation. Participation is determined by students meeting minimum requirements and by the needs of local employers. Grading is based on submission of weekly logs and employer evaluations.

ENGLISH

ENGLISH 9 (1cr) The English 9 curriculum has as its primary objective the development within each student of an “improved degree of literacy;” that is, the ability to write not only correct, but truly effective prose, and the ability to read correctly, make judicious value judgments, and appreciate literature. Through the reading of short stories, novels and drama, plus the completion of related writing assignments, the ninth-grade course attempts to equip the student with an improved competency in reading, writing, speaking and listening that will enable him/her to be successful in other areas of academic studies.

ADVANCED ENGLISH 9 (1cr) The curriculum for this class is the same as regular English 9 with the addition of research and documentation; higher level grammar, usage and mechanics; and additional analytical writing and critical thinking in relation to literature. Requirements: Grade “B” or better in 8th grade English and teacher recommendation.

LANGUAGE ARTS FUNDAMENTALS 1 (1cr each year) Through the reading of short stories, novels and drama, plus the completion of related writing assignments, the course attempts to equip the student with an improved competency in reading, writing, speaking and listening that will enable him/her to be successful in other areas of academic studies. This course is for 9th and 10th graders in order to prepare them for the Keystone Literature exam while also preparing them be successful readers and writing.

ENGLISH 10 (1cr) – World Literature: This class consists of reading and analysing prose from all over the Earth – from the beginning of recorded time through the present. We will also focus on composition, oral communication and critical thinking. The students will develop competency in English usage and mechanics through reading and analysing text. Skills measured on the Keystone exam are studied, intensely, in 10th grade English. The study of grammar is interrelated with their literary pursuits and other classroom activities.

ADVANCED ENGLISH 10 * (1cr) World Literature: This weighted course is designed for the 10th grade student who wishes to take a challenging curriculum in preparation for college. The basic English class material is covered at an accelerated rate, as well as the study of complex literary elements and writing strategies. This class is reading intensive and more emphasis is placed on a college-level vocabulary and advanced grammar skills. Numerous written compositions will be required. Requirements: Grade “B” or better in 9th grade Advanced English, teacher recommendation and completion of summer reading assignments.

ENGLISH 11 (1cr) This is a survey course in American literature with emphasis on writing, enhancing vocabulary skills, and recognizing and using literary terminology. This course presents many facets of American literature which have taken place during our brief history. Letters, articles, essays, drama, short stories, poetry and novels will be taught to improve the student’s knowledge and appreciation of our literary heritage. The writing component consists of the student writing some of the same types of literature using grammar, mechanics and usage skills. Students in English 11 complete the preliminary research and

structure of the Senior Project, which includes career assessment, research of three careers from three career clusters, introduction to job shadowing, writing, time management and organization.

ADVANCED ENGLISH 11 * (1cr) In this weighted class classic pieces of literature will be read in their entirety, along with classic American stories and poems which will be read to supplement the text. Special preparation will be given in advanced vocabulary and college-level grammar. Additional writing will be emphasized. Compositions, research papers and college application essays will be written and showcased in a portfolio. Students are required to complete a summer reading requirement prior to entering this course. Prerequisite: Grade of "A" or "B" in Advanced English 10 and teacher recommendation. Students will complete the preliminary research and structure for the Senior Project, which includes career assessment, research of three careers from three career clusters, introduction to job shadowing, writing, time management and organization.

LANGUAGE ARTS FUNDAMENTALS 2 (1cr) This course covers the same standards and content as English 11, but moves at a slower pace.

ENGLISH 12 The senior English Literature textbook covers all major literary periods: Anglo-Saxon, Medieval, Renaissance, Restoration, Romantic, Victorian, and Twentieth Century. A knowledge of and appreciation for all types of literature is emphasized. A thesis paper and a senior project are required for graduation. The bulk of time will be spent on reading literature, writing essays, and increasing the student's vocabulary. Public speaking, grammar, research papers, skills needed for after highschool, and famous pieces of writing will be included to round out the scope of education. Guest speakers will speak on careers, motivation, and goal setting.

ADVANCED ENGLISH 12 * This is a weighted course that uses the same textbook in English literature as the regular English 12 students, but at an accelerated speed. In addition, more emphasis will be placed on college-level vocabulary and advanced grammar, and the writing of literary papers. A thesis paper and a senior project are required for graduation. Any gaps in the student's English background will attempt to be filled by this course in their final preparation for college. Famous novels not yet read will be discussed. World Literature paperbacks: *Odyssey*, *Miracle Worker*, *Antigone*, *Oedipus*, *Count of Monte Cristo*, *Les Miserables*, *A Tale of Two Cities*, and *F451* will be read. In addition to *Macbeth*, that all seniors study, *Hamlet* and *Midsummer Night's Dream*, will be studied. Public speaking and oral reading of student writing will be encouraged. Prerequisite: Students must have earned an "A" or "B" in Advanced English 11.

LANGUAGE ARTS FUNDAMENTALS 3 (1cr) This course covers the same content and standards as English 12, but moves at a slower pace.

ENGLISH ELECTIVE COURSES

CREATIVE WRITING Grades 9-12 (.5 cr) In this English elective course students will explore various forms of informal writing, such as poems, children's books, short stories, and one-act play scripts. Emphasis will be on imagination and style, creativity, and productivity. A willingness to express oneself in writing is all that's needed.

MEDIA I/ TELEVISION PRODUCTION Grades 9-12 (.5 cr) This course introduces the many facets of broadcasting and production. Students will produce programs that will air to the student population. Students will learn how to write complicated scripts and storyboards, as well as develop intricate skills in both videotaping and editing. Students are introduced to non-linear editing and graphics programs used in

actual broadcasting stations. Students also concentrate on the storage, management, and retrieval of media assets in a production environment.

MEDIA II / FILM STUDIES Grades 10-12 (.5 cr) Prerequisite MEDIA I This class studies the nature of film technique and film language, analysis of specific films, major historical, theoretical, and critical developments in film and film study from the beginnings of cinema to the present. Through the screening of a variety of significant films students will learn the history of motion pictures. The class will focus on the different historical perspectives and cultural influences in film from the early days of film to present day films. Students will study the early history of motion pictures and learn how films were first developed, how they evolved, and where they are going. A number of full-length films will be analyzed for plot, technique, symbolism, and character development. Utilizing classroom discussions, written comparisons, character sketches, and reviews, the students will learn to sharpen their powers of criticism and appreciate the artistic value of film. Students will be required to read and analyze scripts as well as write complicated criticisms of films. The class will also produce a short film in a studied genre.

S.A.T. PREPARATION + Grades 11 (.5 cr) This course is an on-line course provided by a third party provider to assist students in preparing for achievement exams such as the S.A.T. and A.C.T. which are used for college entrance. Students will have exposure to several practice exams emphasizing SAT writing, reading, and college level vocabulary. The course is a pass/fail class and requires time spent independently online to complete. .

YEARBOOK PRODUCTION Grades 9-12 (.5 cr) This course will provide students with an opportunity to be involved in the production of the UCHS yearbook. Instruction will be provided in the areas of: Photoshop - computer image handling and use of scanners and digital cameras, PageMaker - setting up the yearbook, working with graphics, page submission and proof corrections, photography - students will be assigned to cover different school events to take pictures, write captions & articles, yearbook sales & advertisements: making spreadsheets, balancing budgets, working with book & Ad sales. *This course can be taken only once a year and cannot be used to fulfill the computer requirement.*

FAMILY & CONSUMER SCIENCES

MODERN LIVING Grade 9 R (.5 cr) This class is designed to teach students the principles of adult responsibilities. Within this course students will explore financial literacy, family functions & life cycle, communication, nutrition & meal management, and family planning, including pregnancy, birth, & baby basics. Throughout the class, students will have the use of the empathy belly and Real Care babies. This course is required for students in grade 9.

AMERICAN CUISINE Grades 10-12 (.5 cr) **Lab Fee: \$20** This class is designed to teach students the fundamentals of American cuisines and classics. Bookwork and labs are combined to give the students first-hand experience in the art of cooking American foods. American cuisines and content covered includes: Safety & Sanitation, Cooking Tools & Techniques, and Touring the United States: Northeastern, Southern, Pacific Coast, Midwestern, and Northwestern & Southwestern Regions.

BAKING ESSENTIALS: Grades 10-12 (.5 cr) **Lab Fee: \$20** This class is designed to teach students the fundamentals of baking. Bookwork and labs are combined to give the students first-hand experience in the art of pastries. Baking content covered includes: Safety & Sanitation, Ingredient Functions, Baking Tools & Techniques, Quick Breads, Yeast Breads, and Desserts.

CULINARY ESSENTIALS Grades 10-12 (.5 cr) **Lab Fee: \$20** This class is designed to teach students the fundamentals of cooking. Bookwork and labs are combined to give the students first-hand experience in the

art of cooking. Culinary content covered includes: Safety & Sanitation, Cooking Tools & Techniques, Seasonings & Flavorings, Breakfast Cookery, Salads, Sandwiches, Sauces, Soups, and Meat & Poultry Cookery.

GLOBAL CUISINE: Grades 10-12 (.5 cr) **Lab Fee: \$20** This class is designed to teach students the fundamentals of cooking. Bookwork and labs are combined to give the students first-hand experience in the art of cooking. Global cuisines and content covered includes: Safety & Sanitation, Cooking Tools & Techniques, and Touring Global Countries: Latin America, Northern & Southern Europe, Eastern Europe & Northern Asia, East & Southeast Asia, and Australia & Oceania

FOREIGN LANGUAGE

SPANISH I Grades 9-12 (1 cr) An introductory course to the Spanish language and its diverse cultures focused on essential communication skills and vocabulary development. Thematic units include the basics (ABC, 123, etc...), meeting new people, describing yourself, likes and dislikes, school, and food. Initial grammar concepts are presented, but not the focus. Class is student centered and incorporates song, dance, technology and much more. **Prerequisite: "C" average in English 7 and 8 or B in English 9**

SPANISH II Grades 9-12 (1 cr) Speaking, listening, reading, writing and cross-cultural communication skills are further developed in this level of Spanish. Thematic units include the hobbies, family, restaurant experiences, daily routines, home and chores, clothing and shopping. This course is a little more grammatically heavy and students will complete a grammatical research paper (in English! ☺). **Prerequisite: "C" average in Spanish I**

SPANISH III Grades 10-12 (1 cr) Communication skills continue to play a central role in this course although additional grammatical concepts are covered. Thematic units include clothing and shopping, toys, games, and childhood, nature and animals, and more. In addition, students will help to plan and organize International Day. **Prerequisite: "B" average in Spanish II and/or teacher recommendation**

SPANISH IV Grades 11-12 (1 cr) In this class, students are regularly exposed to authentic texts in the target language. Thematic units include college and professions, holidays and celebrations, natural disasters and emergencies, healthcare, and travel. The class will be expected to produce a multimedia presentation in the target language. **Prerequisite: "B" average in Spanish III and/or teacher recommendation**

MATHEMATICS

INTEGRATED MATH A/B Grade 9 (1-math cr + 1 elective cr) This year long course is for the student who has completed 8th grade Pre-Algebra with a final grade below 70% or had a standard state test score below Proficient. This course covers the primary concepts of Algebra at a slower pace than regular Algebra I while reinforcing basic math skills. The course includes topics such as variables, solving equations, positive and negative numbers, order of operations, polynomials, factoring, Pythagorean Theorem, radicals and introduction to graphing calculators. Applications are emphasized throughout the course.

INTEGRATED MATH Grade 9 (1 cr) This semester course is for the student who has completed 8th grade Pre-Algebra with a final grade between 70% and 85% or had a standard state test score below Proficient. This course covers the primary concepts of Algebra while reinforcing basic math skills. The course includes topics such as variables, solving equations, positive and negative numbers, order of operations, polynomials, factoring, Pythagorean Theorem, radicals and introduction to graphing calculators. Applications are emphasized throughout the course.

ALGEBRA I Grades 9-11 (1 cr) Algebra I is the necessary foundation for the development of logical thinking. The course includes topics such as variables, solving equations, inequalities, systems of equations and inequalities, order of operations, polynomials, factoring, data analysis, functions, radicals and introduction to graphing calculators. Applications are emphasized throughout the course. **Students will take the Keystone Exam, if Proficiency is not achieved the student will be required to complete remediation courses until competency levels are met.*

GEOMETRY Grades 9-12 (1 cr) This course is set up to develop the student's ability to think creatively and critically in both mathematical and non-mathematical situations. This is accomplished by developing an understanding of geometric relationships in both a coordinate plane and a non-coordinate plane. This is further brought about by developing an understanding of the meaning and nature of proof. The method of deductive proof will be introduced through a variety of forms, such as paragraph proofs, flow-chart proofs and two-column proofs. Geometric concepts will be integrated with arithmetic and algebraic skills to further enhance this aspect of geometry. Prerequisite: Algebra I.

ALGEBRA II Grades 10-12 (1 cr) This course, primarily designed for the college-bound student, covers graphing, solving systems of equations, factoring, functions and relations, logarithms, natural logarithms, quadratic, cubic and exponential equations, radicals, matrices, models, as well as adding, subtracting, multiplying and dividing rational and irrational numbers. Prerequisite:

PRE-CALCULUS * Grades 11-12 (1 cr) This weighted course is designed for the accelerated college-bound student. The subject is developed primarily as a means of finding the lengths of sides and the measure of angles of triangles. Analytic trigonometry is also discussed along with its use in the complex number system. In addition, polar coordinates, parametric equations, limits and continuity as well as rates of change and tangent lines will also be covered. Prerequisite: Algebra I, Algebra II and Geometry with an "A" or "B". If a "C" was received in any grading period, the student must have a recommendation from both instructors.

TRIGONOMETRY * Grades 11-12 (.5 cr) Success in college-level mathematics is enhanced by a good understanding of trigonometry. This weighted course is designed for college-bound students who may desire to study calculus later. The subject is developed primarily as a means of finding the lengths of sides and the measure of angles of triangles. Analytic trigonometry is also discussed along with its use in the complex number system. If time permits, polar coordinates and parametric equations will also be covered. Prerequisite: Algebra II, Geometry. If a "D" was received in any grading period, the student must have a recommendation from both instructors.

CALCULUS * Grade 12 (1 cr) This is a weighted college-prep course that will provide a capable background in math for the student who may pursue a mathematical, scientific or engineering course of study as an undergraduate. Prerequisite: Precalculus with an "A" or "B". If a "C" was received in any grading period, the student must have a recommendation from both instructors.

PERSONAL FINANCE Grades 11 -12 (1 cr) This course is designed to prepare the student for successful financial management after high school. Emphasis on basic mathematics as related to skill-based applications will help the student become an intelligent consumer. Topics include banking, credit, insurance, investing, taxes, purchasing, and budgeting. (offered odd years)

STATISTICS Grades 11 – 12 (.5 cr) This course is an introduction designed to provide students with the basic concepts of data analysis and statistical computing. Topics covered include basic descriptive measures, measures of association, probability theory, confidence intervals, and hypothesis testing. The main objective is to provide students with pragmatic tools for assessing statistical claims and conducting

their own statistical analysis. Prerequisite: Algebra II and Geometry with a “C” or better. If a “D” was received in any grading period, the student must have a recommendation from both instructors.

MATH FUNDAMENTALS 1, 2, 3 Grades 9-12 (1 cr) Math Fundamentals courses are for students who need smaller classes and more time before taking the Keystone exam. Math Fundamentals 1 will be for 9th and 10th graders to give them the pre-algebra and other math skills to get them ready for Math Fundamentals 2. Math Fundamentals 2 is an algebra class to prepare students for the Algebra Keystone and finally, Math Fundamentals 3 is a course designed to prepare students for life after high school and help them gain the essential math skills for personal financial competency.

MATHEMATICS ELECTIVE COURSES

COMPUTER PROGRAMMING / Coding > Grades 10-12 (.5 cr) This course provides an introduction to computer programming. During the 9-weeks course, students will be asked to edit, write as well as debug programs. Hands-on programming will be strongly emphasized throughout the course. Prerequisites: Algebra I & II, Previous Computer Course

WEB DESIGN /FUTURES > Grades 11-12 (.5 cr) The Web Design class provides an introduction to the design, creation, and maintenance of web pages and websites. During this 9-weeks class, students learn how to critically evaluate website quality, learn how to create and maintain quality web pages, learn the importance of web design standards, and learn how to create and manipulate images. Students will be required to complete a culminating project in which they design and create their own website. Students will develop their career portfolios and utilize the Everfi program. Prerequisites: Algebra I & II, Previous Computer Course

STOCK MARKET Grades 10-12 (.5 cr) This course is designed to provide students with an understanding of not only how to invest in the stock market, but more importantly, why it's essential to save money. Students will get a basic introduction to stocks as well as learn practical applications of how to invest. This course aims to help students build the ability and knowledge to make their own decisions with their investment decisions in the stock market. By the end of course, the class will have covered concepts such as various buy/sell orders, reading stock charts, compounding interest, reading financial statements, and managing risk. Students apply their skills to various stock market simulators including a real-time simulation that mirrors the actual stock market. It allows them to practice various methods without the risk of losing money.(offered even years)

S.A.T. PREPARATION Grades 11(.5 cr) This is an independent study course which is online and provided by a third party. It is designed to assist students in preparing for achievement exams such as the S.A.T. and A.C.T. which are used for college entrance. Students will have exposure to several practice exams emphasizing SAT mathematics. The course is a pass/fail class and the student is required to complete the work independently.

MUSIC

MARCHING BAND Grades 9-12 (.5 cr) (1st Quarter) The UC Marching Bears, this class consists of musicians and color guard. The musicians are percussion, brass and woodwinds. The color guard uses an assortment of equipment and props to perform in visual representation, the mood and feeling of the music. Tryouts for color guard are held in the late winter/spring of the previous year. Musicians must already be accomplished on their instrument before joining. You may take lessons with Mr. Prinkey in the spring of the prior year if you would like to join. Marching Band is **co-curricular** in that your grade is based on in-school rehearsals and after school performances. We perform between 15-25 times in the fall. There are after school and Saturday rehearsals as well. Marching Band camp in August is required and there are other

summer practices and performances. We are a highly competitive group committed to excellence on and off the field. Some sections of the band may be auditioned ahead of time because of numbers and extremely high ability levels.

CONCERT BAND Grades 9-12 (.5 cr) This class is designed to enhance student ability on their instrument to maximize performance skills. It is for band students in grades 9-12. Scales, harmonic studies, internet lessons and area experts will be utilized to develop all musicians in this class. Students will be amazed at the individual progress they make! The target goal will be to perform in an end of nine weeks ensemble concert which is graded. Participating and performing in a small ensemble (solo, duet, trio or quartet) is optional. This class also provides extra rehearsal time for students participating in PMEA ensembles. It may be possible to share students with the High School Choir class meeting at the same time.

GUITAR CLASS Grades 9-12 (.5 cr) This class meets for one block daily during nine weeks of the year. It is generally offered in alternating school years. This course is meant for the beginning guitarist. Some advanced techniques will be presented depending on the ability of the class. You must provide your own acoustic guitar (solid body electric guitars are not accepted).

PERCUSSION ENSEMBLE Grades 9-12 (.5 cr) This class meets for one block daily during nine weeks of the year. It is generally offered in alternating school years. All students in the class will learn to play drum set, snare drum, marching drums, keyboards and the auxiliary percussion instruments. There will be a required, graded, evening performance.

JAZZ BAND Grades 9-12 (.5 cr) (4th Quarter) The UC Jazz Ensemble is one of the most enjoyed performing ensembles in the district. We work on classic jazz/rock repertoire as well as newly composed "modern" music. We study jazz performance and jazz history as part of class. The end goal is both a spring concert and performing at graduation in June. Jazz studies include jazz scales and harmonies that are not typically explored in concert bands. Learning how to improvise will also be explored and several students will end up soloing at the concert. Students also have the opportunity to play guitars, bass guitars, pianos, and drum sets as part of this experience. Clarinet and flute players may learn new instruments such as saxophones or brThe music performed is powerful and entertaining.

HIGH SCHOOL CHORUS Grades 9-12 (.5 cr) High School Chorus is for students in grades 9-12 who wish to improve their vocal and choral abilities with attention to concrete understanding of choral notation while focusing on mid-level choral repertoire. A variety of genres will be explored with the opportunity for student input on concert selections. Students in this group will be given an opportunity to audition for solo or group concert performances. There will be a required, graded, evening performance and possible performances during the day.

PLAY PRODUCTION / MUSICAL - Grades 9-12 (1cr) This course is for any student who has minimal background knowledge for plays or musicals but has the desire and fortitude to learn. Students should be comfortable speaking in public, follow directions, have the ability to use and care for safely basic tools for the creation of props. Students will be required to memorize lines, possibly, long paragraphs. Students must be able to embrace constructive comments and apply them to improve their work and performance. Additionally, students must be willing to work through the negative emotional challenges that face all actors: predominantly, fear of criticism, low self-esteem issues, the procrastination on memorizing lines, and the necessary time outside of the class period needed to build a set, find costumes and props and memorize lines. (offered even years)

PHYSICAL EDUCATION & HEALTH

PHYSICAL EDUCATION Grades 9-10 (.5 cr) Emphasis is placed on building the student's self-discipline, personal hygiene, ability to work with other skill levels in various areas of sport and fitness and trying to better each person in a vast number of skill areas, both physically and mentally. The physical education program consists of a combination of team sports, life-time sports activities and fitness training. Basic skills are taught along with simplified rules for several of the major team sports such as football, soccer,

speedball, volleyball, basketball, floor hockey, indoor recreation activities, and swimming. Exercise techniques for maintenance of proper body weight and strength are also included. Presidential Fitness testing is administered each nine-week grading period. Levels of modification vary with skill levels and abilities of the class, skill development and knowledge of particular areas. Also included are fun activities and outdoor activities (softball, volleyball, golf, etc.) when weather permits. *Each class will begin with a pre-class routine: stretching together, walk/run/walk and/or weight room activity.

PHYSICAL FITNESS Grades 9-10 (.5 cr) During this course students will improve their personal health by setting measurable physical fitness goals which will be established jointly by the student and instructor. Students will increase their knowledge and participation in lifetime personal fitness activities including: aerobics, yoga, circuit & weight-training, walking, and running.

AQUATICS-WATER SPORTS Grade 9-12 (.5 cr) During this course students will improve their swimming skills and explore recreational water sports. Students will increase their knowledge and participation in lifetime aquatic fitness activities including: Swim Stroke Development, Water Polo, Water Volleyball, and other water activities.

RECREATIONAL ACTIVITIES Grades 9-10 (.5 cr) Recreational activities is a set of activities that people engage in during their free time, that people enjoy, and that people recognize as having socially redeeming values. The action performed is often less important than the reason for performing the activity, which is the outcome of better health! Recreational or leisure sports involve release of stress and enjoyment in the social aspect of sport and activity. Recreational activities can be performed throughout a person's life regardless of age or ability level either as part of clubs, organizations, or independently. An emphasis is placed on proper use of rules and strategies to perform each skill. Activities in this class include badminton, pickleball, swimming, cornhole, table tennis, shuffleboard, horseshoes, bocce, walking, hiking, snowshoeing, cross country skiing, and more.

TEAM SPORTS Grades 11-12 (.5 cr) This course is designed to incorporate a full complement of team sports with some lifetime activities. An emphasis on skill development, rules, strategies, teamwork, and sportsmanship will be placed on each activity. Many of these activities are cardio based and will require a basic level of fitness to participate. Students in this class will often be placed on teams and required to work together accordingly. Team sports will include: Badminton, pickleball, speedball, handball, softball, football, ultimate frisbee, floor hockey, capture the flag, volleyball, soccer, and more.

LEADERSHIP IN SPORT Grades 11 -12 (.5 cr) This course offers an opportunity for students to study leadership and what makes a person an effective leader with a strong emphasis on team leadership and team captains. This class will examine many of the world's best athletes, coaches, military, and industry leaders and learn what made them successful leaders on and off the field of play. The course is designed to build and improve leadership skills and how to implement them in the lives of others.

OUTDOOR REC Grades 11-12 (.5 cr) This course focuses on activities and recreation that can be done outdoors. Activities can change with the seasons but would include: Hiking, backpacking, orienteering, snowshoeing, cross country skiing, fishing skills, cold weather survival training, and more. It will also involve activities that can be done as a group or independently such as horseshoes, frisbee golf, golf, bocce, and more. This does not have a traditional sports or team sport emphasis to it. Students should be prepared to go outdoors all year round weather permitting.

HEALTH 1 Grades 9-10 R (.5 cr) As students approach adulthood they will begin to take responsibility for their own health. Students will be encouraged to examine their current lifestyles and see how their future health will be impacted by today's choices. Topics for discussion will include life-style diseases, physical

fitness, nutrition, mental health, suicide prevention, character education, alcohol and substance abuse, sexually transmitted infections, and stress management.

HEALTH 2 Grades 11-12 R (.5 cr) The health issues that affect today's society are changing rapidly, especially for teenagers. Issues that will be covered are nutrition, immunization, drugs, health insurance, concussions and current health issues. Students will be asked to examine these issues through individual research, reports, and presentations.

SPORTS WELLNESS Grades 1-12 (.5 cr) Sports Wellness is designed to review the physical, mental, and social components of health and apply those components to the world of sports. Created for the student athlete or anyone just interested in the subject, this course will cover a number of topics that will enhance his/her awareness of his/her performance, attitude, and outlook of his/her sports activities. Physical components include reviewing MyPlate, fueling the body for optimal performance, healthy food choices, sleep, and hydration. Mental components include motivation, goal setting, visualization, mental imagery, dealing with stress and anxiety, and confidence. Finally, for the social component, this course will look at leadership skills, teamwork, and positive sportsmanship. Current sports trends, athletic events, and community involvement will also be discussed. (offered odd years)

INTRO TO PUBLIC HEALTH Grades 10-12 (.5 cr) This class will explore the field of Public Health. This is an ideal class for students that may be interested in a health career (doctor, nurse, social worker, pharmacist, etc). Students will investigate issues such as disease prevention and health promotion, public health policies and healthcare, careers in public health, and current events affecting the health and wellness of a community. Medical terminology will also be studied by looking at the Greek and Latin origins to help build a foundation for the pursuit of any medical career. (offered even years)

DRIVER EDUCATION Grades 10-12 (.5 cr) This course reviews laws, regulations and safety information promoted by the Pennsylvania Department of Transportation. Students will receive instruction with respect to drivers training that will prepare them to take the drivers examination. Behind-the-wheel training will be offered separately and at a cost. (Counts as regular elective; does not count as Health or PE elective.) Can be taken as Independent Study with approval of administrator.

SCIENCE

GENERAL SCIENCE Grade 9 This class is broken down into 2 parts; basic ecology and general science skills. One part of this course provides an introduction to the interactions between living organisms and their environment. Topics include different types of population, communities and ecosystems species interaction, energy flow, nutrient cycling, succession, natural selection, evolution and applications to current environmental management issues. The other part of this course provides an introduction to general principles of scientific skills. Students have the opportunity to explore scientific processes, develop laboratory skills and techniques, and acquire an understanding of the fundamental principles of life. Subjects that will be covered include, but are not limited to: properties of water, biological chemistry, and macromolecules.

BIOLOGY Grades 9-10 Biology is a required high school course that deals with the science of life. The course covers a variety of biological topics including: biochemistry, cell structure and function, cellular physiology, genetics, DNA technology, Evolution, and Ecology. The course is based on lecture, labs, activities, current events, projects, tests, and homework. The course follows the state standards in Biological Sciences and the students will be taking the state mandated Keystone exam at the end of the course.

CHEMISTRY Grades 10-12 This course emphasizes the chemical concepts of composition, structure and properties of substances and the changes they undergo. These concepts are reinforced through carefully aligned laboratory experiments and problem solving exercises. Concepts covered are designed to give background to students pursuing careers in science related field. Topics covered include laboratory safety, composition & characteristics of matter, data collection & analysis, atomic structure, periodic table, chemical bonding, chemical formulas, chemical reactions & equations, stoichiometry & gases. This course is considered a lab science for meeting college admissions requirements. Prerequisites: Algebra I & II, Biolog

APPLIED CHEMISTRY Grades 11-12 Applied Chemistry is a lab-based course designed to introduce the student to basic lab practices of equipment use and measuring. Areas of study to be covered include: *Characteristic properties of matter *Periodic table and its trends *Chemistry in the home *Data collection and analysis *Safety in class and beyond. This course meets a science requirement, but is not suggested for students pursuing 4-yr college.

ENVIRONMENTAL SCIENCE Grades 11-12 This is a required course for students completing the Agriculture Education Technical Program and focuses on the following topics: Wise use of renewable and non-renewable resources; pollution, including types, control measures and clean-up; ecosystems & their interactions, including biomes & communities of organisms, population, food and hunger; watershed and wetlands; agriculture and society; integrated pest management; threatened, endangered and extinct species; humans and the environments; environmental laws and regulations; health of humans, plants and animals related to the environment.

HUMAN BIOLOGY Grades 12 This course provides an introduction to the structure and function of the human body using an organ systems approach. Through a combination of coursework, hands-on and laboratory learning, students will explore the integumentary, skeletal, circulatory, respiratory, digestive, excretory, nervous, and endocrine systems. Human diseases and heredity will also be integrated. Grade of "C or Better" in Prerequisites: Chemistry, Biology, Algebra II

PHYSICS * Grades 11-12 Physics is a one-credit weighted course for high school students, and will be weighted for students in the class of 2012 or later. This course emphasizes the use of the scientific method in problem solving, recommended for all college-bound students. Experiments are planned to encourage students to explore, innovate, and enjoy the laboratory experience. Topics covered include measurements, motion, vectors, projectile motion, dynamics, work, energy, momentum, circular motion, heat & thermodynamics. Prerequisite: Grade of 80% or better in Chemistry, Biology Algebra II & III & Geometry

ANATOMY & PHYSIOLOGY * Grades 12 This weighted course is taught as an anatomy and physiology course designed for the 12th grade student who may be considering majoring in the medical field or a related science field. The student will be required to complete eight formal lab reports and a rat dissection. A minimum of one lab practicum will accompany the laboratory format. The course will cover the human body including the anatomical structures, physiological mechanisms, and current applications to the medical field. This course is designed for the college bound student. The option of completing the College Board AP Exam for this course may be offered in the spring of each school year. Prerequisites: Chemistry, Biology, Physics grade of "A or B" in each.

ADVANCED CHEMISTRY II * Grades 11-12 Advanced Chemistry II is a weighted course which provides more in-depth study of general chemistry and study of new topics not previously covered. The course reinforces all concepts with carefully aligned laboratory experimentation. New topics include solution

chemistry, acid-base theory, advanced chemical reactions and equations, oxidation-reduction, VSEPR chemical bonding, and organic chemistry. Prerequisite: Grade of 80% or better in Chemistry, Algebra II, & Physics

ADVANCED PHYSICS II * Grades 12 This course explores areas not covered in general physics. Topics covered include electricity, magnetism, nuclear, fluid flow, sound, light, and fundamental particles. Conceptual learning is stressed more than the rigorous problem solving found in physics. College-bound students looking to major in any of the sciences, including nursing, will benefit from this course. Prerequisites: Grade of 80% or better in Chemistry, Biology, Physics I

SCIENCE ELECTIVE COURSES

FOOD SCIENCE Gr 10-12 (.5 cr) Students who have passed regular chemistry and have an interest in food science! Students should have a basic desire to learn more about the science behind foods and how things change in the process of preparation of our foods and beverages. Can count toward STEM elective. (offered odd years)

PA WILDLIFE BIOLOGY AND HABITAT Gr 10-12 (.5 cr) This course will examine the biology and habitat of white-tailed deer and other wildlife species of Pennsylvania. The primary focus will start with the white-tailed deer basics including feeding and digestion, antler development, communication, seasonal behavior, and conservation. Topics such as creating food plots, using scouting cameras, understanding ethics/ game laws, and hunting techniques will also be explored. Besides the white-tailed deer, students will further explore other Pennsylvania wildlife species by researching, creating, and presenting their own wildlife project. (offered odd years)

PHYSICS OF POWER TECHNOLOGY > Grades 10 -12 (.5 cr) In this course, students will be introduced to the following areas: Electricity, Pneumatics, Structures & Mechanisms, & possibly Lasers & Fiber Optics, and Alternative Energy. Students will explore the relationship between force, work, energy, and power. Students will examine and apply the principles of electrical, fluid, and mechanical power, as well as the use of lasers, fiber optics, and alternative energy. Students will further explore some of the many careers that exist in energy and related technologies, specifically wind energy. (offered even years)

PHYSICS IN THE DESIGN WORLD > Grades 11-12 (0.5 cr) In Physics in the Designed World, students study two components of the Designed World - Information Technology and Entertainment/Recreation. In the Information Technologies component of the course, students will research how technology facilitates the gathering, manipulation, storage and transmission of data and how these data can be used to create products. In the entertainment and recreation unit, students will investigate technological entertainment and recreation programming, including analyzing the science that impacts it. Youtube and Mythbusters videos will be used. (offered odd years)

INTRO TO ANATOMY OF SPORTS > (.5 cr) Grades 9-12 This class will allow students to explore various career opportunities in sports medicine, including athletic training, fitness, strength and conditioning, and physical therapy, anatomy & physiology. Students will use hands-on activities that introduce them to proper stretching techniques, athletic taping, on-the-spot treatment of injuries, rehabilitation, and nutrition. (offered even years)

INTRODUCTION TO BIOMEDICAL SCIENCE > (.5 cr) Grades 9-12 This nine week elective course is designed for STEM Academy students who are interested in pursuing a career in biomedical sciences. This course will introduce students to human physiology, animal physiology, medicine, forensics, and medical

research. Activities include investigations of a variety of health conditions including infectious disease. Laboratory activities will include dissection of animal organs. (offered odd years)

MEDICAL INTERVENTIONS (.5 cr) Grades 10-12 This is the second course in the Biomedical track. The third course recommended in this track would be Anatomy & Physiology or Human Biology taken the senior year. This course will provide students with a “how-to” approach of the medical field. The course will include topics such as: the Hippocratic Oath, patient interactions, diagnostic test simulations i.e.: urine analysis, BMI analysis, blood smears, HIV test, lung capacity, x-rays, hormone tests, and a mock surgery. Students will be expected to behave in a professional manner similar to a new employee in the medical profession. Students will experience either guest speakers from the medical profession and/or a field trip to a local medical school or hospital. Prerequisite Introduction to Biomedical Science with a grade of “C” or better. (Offered even years)

FORENSIC BIOLOGY > (.5 cr) Grades 10-12 This class will provide in-depth explorations of forensic science and many of its sub-fields including forensic medicine, anthropology, pathology, chemistry, and toxicology. Students will discover the usefulness of DNA evidence and electrophoresis. They will also be exposed to common forensic laboratory procedures such as blood type determination, blood type matching, drug identification, and urinalysis. (offered even years)

ENVIRONMENTAL CONSERVATION > + (.5 cr) Grades 9-12 This course is designed to give students an understanding of the relationship between human beings and the natural environment. We will discuss the recent history of environmental concern and action within social movements. We will turn French Creek into our outdoor laboratory. Rich in historical significance, incredible biodiversity, and recreational opportunities, the French Creek Watershed is truly a community treasure. (offered even years)

STEM SENIOR CAPSTONE PROJECT > + Grades 12 (.5 cr) This course is designed to provide students with the opportunity to integrate the knowledge they learned in previous science and mathematics classes to understand the application of the concepts and to develop projects. **This is a required course for STEM Academy students who want STEM recognition at graduation.** Students will have the option to choose the section of Science Project Design that interests them the most, specifically, Medical, Engineering/Business, Agricultural/Business.

SOCIAL STUDIES

MODERN AMERICAN HISTORY Grade 9 (1 cr) This course is a chronological survey of the major political, social, economic, and international developments in the United States since 1865. A great deal of emphasis is placed on relating events of the past to contemporary events. A variety of instructional materials including textbooks, worksheets, maps, videos and computer assignments are incorporated into classroom activities.

WORLD HISTORY & CULTURES Grade 10 (1 cr) This course covers content from prehistory to Modern times with a basic focus on western civilizations and cultures. The course views various civilizations and cultures from the geographical, political, economic, military and socio-cultural perspectives. It should help the student gain an understanding and appreciation of the peoples, cultures and history of the world through cause-effect relationships, cultural contributions and assimilation.

UNITED STATES GOVERNMENT & CIVICS Grade 11 (1 cr) The past and present (in theory and reality) is the course of study through this class. Topics will range from the understanding of our national constitution and the resulting form of federal government (local, state and national) to a character analysis of various American leaders. A continuing discussion of current national and international events will also

be part of this course as it pertains to American Government. This course shall be primarily concerned with developing an awareness of civic-mindedness and participation in our democratic process.

ECONOMICS Grade 12 (.5 cr) This course will prepare students to understand the U.S. and global economic system and how it relates to citizens as consumers and producers. Consumer practices and responsibilities are investigated and the skills needed for management of resources and financial security are developed with an emphasis on decision making, critical thinking, and using technology.

ADVANCED ECONOMICS Grade 12 (.5 cr.) This is an advanced course designed to provide academically prepared seniors with a thorough understanding of the principles of Economics that apply to the functions of consumers and producers within the economic system. Consumer practices and responsibilities are investigated and the skills needed for management of resources and financial security are developed with an emphasis on decision making, critical thinking, and using technology. Advanced level reading, writing, & active class participation will be required.

SOCIAL STUDIES ELECTIVE COURSES

INTRODUCTION TO CRIMINAL JUSTICE Grade 10-12 (.5 cr) This course provides the philosophical and historical background of the agencies that compose the criminal justice system. It focuses on the development of justice and law, crime and punishment, the administration of laws, the agencies' functions, career orientation and public relations. It describes the formal components of the criminal justice system, their history of evolution, and their operations. The focus throughout is on people: the criminal offenders, the professional members, and the role of the public. (May not be available every year)

INTRODUCTION TO PSYCHOLOGY Grades 10-12 (.5 cr) This is an introductory course into the field of psychology. The course design follows the National Standards for High School Psychology providing the students with exposure to key terminology, concepts and theory. The topics covered include principles of psychology, the fields of specialty, psychological perspectives, learning (classical and operant conditioning), sensation and perception, memory & thought, motivation & emotion, personality theory, psychological testing & abnormal behaviour. (May not be available every year)

MILITARY AND DIGITAL HISTORY Grades 10-12 (.5 cr) This is a hands-on, project-based course where students will learn to conduct original historical research on topics of their choice while utilizing 21st century digital history tools and archives. A general overview of the role of the military and conflict war within the ancient and modern world will be used as a basis for beginning research of students' own projects. (May not be available every year)

INTRODUCTION TO SOCIOLOGY Grades 10-12 (.5 cr) An elective course centered on the behavior of people in groups. Topics included are socialization, institutions, social interaction, social change, collective behavior, and competition in society. Activities include library research, group activities and simulations. (May not be available every year)

ASSASSINATIONS IN AMERICAN HISTORY Grades 10-12 (.5 cr) This elective course provides an overview of the major assassinations taking place in American History including: Abraham Lincoln, James Garfield, James McKinley, John F. Kennedy, Martin Luther King, Jr. and Robert F. Kennedy. A great deal of emphasis is placed on relating events of the past to contemporary events. A variety of instructional

materials including textbooks, worksheets, maps, videos, and computer assignments are incorporated into classroom activities. (May not be available every year)

STEM & AGRICULTURE

INTRODUCTION TO AGRICULTURE, FOOD & NATURAL RESOURCES Grades 9-10 (1 cr) This course is designed to introduce students to the world of agriculture, the pathways of study available to agriculture students, the science, math, and language arts component they will use throughout the four-year program. The Course includes hands-on activities and practical applications designed to develop and improve employability skills of students. Career and post-secondary opportunities will be explored. This can be counted as an elective for students and should be taken prior to the other Agriculture courses.

PRINCIPLES OF AGRICULTURAL SCIENCE – ANIMAL Grades 9-10 (1 cr) This course is designed to provide the foundation for students to engage in hands-on laboratories and activities to explore the world of animal agriculture. Students will have the opportunity to develop a comprehensive Producer's Management Guide for an animal of their choice. Career and post-secondary opportunities will be explored. ***This course stresses the value of student leadership memberships in organizations such as FFA and National Young Farmer Educational Association.***

PRINCIPLES OF AGRICULTURAL SCIENCE – PLANT Grades 9-11(1 cr) This course is designed to provide the foundation for students about the form and function of plant systems. Students are immersed in inquiry-based exercises filled with activities, projects, and problems to teach them plant concepts through laboratory and practical experiences. Career and post-secondary opportunities will be explored. ***This course stresses the value of student leadership memberships in organizations such as FFA and National Young Farmer Educational Association***

ENVIRONMENTAL SCIENCE Grades 11-12 (1 cr) This course is designed to provide students with an overview of natural resources and ecology. Students are immersed in inquiry-based exercises complete with activities, projects, and problems designed to teach concepts through field and laboratory experiences. Career and post-secondary opportunities will be explored. This course can be used to fulfill a Science credit requirement for graduation. ***This course stresses the value of student leadership memberships in organizations such as FFA and National Young Farmer Educational Association.***

HORTICULTURE Grades 11-12 (1 cr) This course is a study of the field of horticulture with emphasis placed on the scientific and technical knowledge for a career in horticulture. Topics include plant growth and development, plant selection, media selection, pest management, chemical disposal, interpersonal skills, and leadership development. Skills previously learned in the courses of Algebra, Chemistry, and Biology are utilized. Work-based learning strategies for this course include agri-science projects. Supervised Agricultural Experience programs and FFA leadership development are an integral part of this course. Students will have the opportunity to take the private applicators section of the PA State Pesticide Certification Examination for possible certification. Students will propagate plants. Study will include genetics, nutrition, soils, plant pathology, entomology, and disease and pest control. Part of this class will involve propagating and planting the community gardens located on school district property. Growing plants using hydroponics will be a component of this class. Career and postsecondary opportunities will be explored. ***This course stresses the value of student leadership memberships in organizations such as FFA and National Young Farmer Educational Association.*** Pre-requisites: Biology, Chemistry, Algebra.

ANIMAL & PLANT BIOTECHNOLOGY Grades 11-12 (.5 cr) This course provides opportunities for students to participate in projects involving micropipetting, bacterial cultures and transformations, electrophoresis, and polymerase chain reaction. Research and experimental design are highlighted as students develop and conduct industry appropriate investigations. Career and post-secondary opportunities will be explored. The course incorporates leadership opportunities for the student to learn the skills of team building, ethical decision making, time management, goal setting, public speaking and conflict resolution. ***This course stresses the value of student leadership memberships in organizations such as FFA and National Young Farmer Educational Association.***

AGRICULTURE POWER & TECHNOLOGY Grades 9-12 (.5 cr)–This is a foundation level course designed to teach the fundamentals of agricultural mechanics. Study areas include: shop safety, tool operation, materials use and selection, engineering, and technology applications. ***This course stresses the value of student leadership memberships in organizations such as FFA and National Young Farmer Educational Association.***

AGRICULTURE HYDROPONICS Grades 11-12 (.5 cr)–This course is designed as a foundation level course teaching the following essentials of hydroponics: nutrient solutions, plant nutrition, types of hydroponic systems, nutrient films, plant culture and harvesting. Students will utilize their skills in the hydroponic room. ***Pre-requisites: Horticulture or Principles of Science – Plant and Biology. Depending upon enrollment, This course may be offered every other year.***

AGRICULTURAL MARKETING Grades 10-12 (.5 cr) Agriculture Marketing is designed to provide the student with the continuing changes and variations confronted in managing an agriculture business. Topics include: agricultural marketing concepts, farm marketing objectives and strategies, target marketing, handling produce, customer relations, market research, promotions, and managing marketing. Students will have the opportunity to develop a business plan, implement the plan, and analyze the results. ***This course stresses the value of student leadership memberships in organizations such as FFA and National Young Farmer Educational Association.***

SUPERVISED AGRICULTURE EXPERIENCE I, II, III (Agriculture Records I) Grades 9-10 (1 cr) This course is an independent study course for full-time agriculture students and is completed outside of the normal school day. Credit is based upon a work experience project or a production enterprise. The student will be required to maintain weekly contact with his/her teacher supervisor, to log his/her time, and must complete a record book and a completed computer printout. ***This course stresses the value of student leadership memberships in organizations such as FFA and National Young Farmer Educational Association.***

(Agriculture Records II) Grades 10-11 (1 cr) SAE II is an extension of SAE I. A personal analysis of records will be stressed. Students must complete a Keystone FFA Degree Application as a part of this course. ***This course stresses the value of student leadership memberships in organizations such as FFA and National Young Farmer Educational Association.***

(Agriculture Records III) Grades 11-12(1 cr) SAE III is an extension of SAE II. This course is an independent study completed by the student under the supervision of the teacher. ***This course stresses the value of student leadership memberships in organizations such as FFA and National Young Farmer Educational Association.***

TECHNOLOGY & ENGINEERING

HOME MAINTENANCE & REPAIR Grades 10-12 (.5 cr) This course will offer instruction in Electricity-wiring of single pole, 3-way switches, duplex receptacles, lights, electricity generation, transformers, and more advanced study of generators, motors, & wiring. Plumbing - drain, waste, vent installation & function, S-traps, stacks, supply water, wells, and more advanced study of soldering Cu pipes, construction of drains etc. Roofing - tear-off, re-roofing, repairs, roofing materials, architecture, calculation of materials and more advanced study of shingle application, & design of trusses and rafters. Drywall - installation techniques, calculation of materials, finishing techniques and repairs. Woodshop - safe use of tools in construction of a wood project. Cost of this class which will be based on the amount of material in the projects.

MANUFACTURING AND TECHNOLOGY Grades 9-12 (.5 cr) This class will include 2nd year through fourth-year students who will study the structure of manufacturing with an emphasis on production. They will research machine operation and safety, wood characteristics, types of joints, and assembly techniques used in woodworking. Then, as a class, they will organize and execute the construction of a mass produced project. They will then be required to custom-produce a project of their choosing. The project will be approved by the instructor based on their ability and skill level. There will be a cost to this class which will be based on the amount of material in the projects constructed. The projects and expectations associated with their projects will be taken into account with the level they are in.

INTRO ROBOTICS Grades 9-12 (.5 cr) This course is designed to provide students with a basic understanding of the working of robotics. Experiences that students will have include programming using Lightbot software, Lego Mindstorms programming, Sea Perch underwater robots, programming robotic arms, etc. Students will compete against classmates and possibly enter additional competitive events. No prerequisite is required.

DESIGN ENGINEERING I & II > grades 10-12 (.5 cr) The student will add the following areas to their drafting background. Pattern Development, Pictorial Drawing, Machine Drawing. The student will be introduced to the world of Architecture and will, in the course work, cover the following areas: CADD using Cadkey, Framing, Elevations, Legal Concerns, Plot Plans, Electrical Plans, Floor Plans, Windows and Doors, Foundation.

TECHNICAL DRAFTING Grades 10-12 is designed to develop the skills for one or more engineering drawing specialties. Students start with basic drafting procedures and techniques coupled with a general exploration of the field. This program may be used to prepare for entry-level work or post-secondary training. In preparing drawings, students use compasses, dividers, parallel edges, scales, triangles, and 3-D modeling. Students will learn to draw and read drawings and with emphasis on different line techniques (corners, hidden lines, dimension lines, extension lines, etc. Technical handbooks, tables and calculators are also used to help solve problems.

Erie County Vocational Technical Course Offerings
BY TECHNICAL TRAINING CLUSTERS
Grades 10 - 12 --- 3.5 or 4 credits/year

All of the technical training program areas are taught with classroom knowledge and applied directly to hands-on experiences. Students complete an application process to participate in are two or three-year course programs designed for high school students in grades 10, 11 and 12. **All courses are offered at Erie County Technical School (ECTS).** Students take their core academic courses at Union City, and attend classes at ECTS for the other half of the day either in the AM or PM. **Additional information about the Erie Technical School can be found on their website at: www.ects.org**

COMMUNICATIONS CLUSTER

ART & DESIGN In the first year of the Art & Design program, students receive training in core art skills, including color theory, perspective and illustrative drawing, lettering, photography and basic graphic design. Students also focus on work skills such as preparing a résumé, writing business correspondence and acquiring basic computer skills.

In the second and third years, students receive complex training in problem-solving skills by applying the design process to projects. Using a combination of computerization, photographic and conventional illustrative methods, students prepare portfolios of approximately 30 pieces of artwork. [Course Sequence Here](#)

Prospective students should possess the following characteristics: 1) a demonstrated talent in drawing; 2) solid verbal and written communication skills; 3) a good sense of color, proportion and design; 4) applied math skills; 5) developed problem-solving skills; and 6) fine motor skills.

COMPUTER PROGRAMMING Students achieve entry-level skills in areas of computer operations, data entry and computer programming depending on their ability and interests. Combined with a background of knowledge, skills and appreciation of the data processing industry, each student is able to seek employment in the area of their interest. [Course Sequence Here](#)

This course aims to present current and future practices in the ever-changing world of data processing. All instructional materials provide students with entry-level skills for positions in data processing through hands-on experience. Studies include the basics of computer science in such areas as design and internal functions, operations, computer operation and programming, data processing and systems design.

The Computer Information Systems program allows students to explore a career path that can lead to higher education in computer programming and many other related fields. Students will gain marketable skills to use computers in any field. --- Prospective students should be able to think logically, have good speaking, reading and writing skills and pay attention to detail.

DRAFTING AND DESIGN Drafting careers are changing rapidly as computer technology replaces traditional procedures and functions. The course instructs students in industry standards while using one of the most up-to-date drafting laboratories in the area. The Drafting & Design program prepares students to step into the workplace or it gives them an important edge, if choosing to further their education in this field. Drafting, mechanical drafting and CAD involve making precise, instrument-aided drawings that show how to construct machines, buildings and infrastructures.

The Drafting & Design curriculum includes all facets of drawing, including preparation of reports, charts and data sheets. The Drafting & Design program is designed for those students interested in drafting, mechanical design, engineering and architectural drawing. [Course Sequence Here](#) Prospective students should possess the following characteristics: creative mind and good imagination, logical thinking, basic math skills, accuracy and artistic ability.

GRAPHIC COMMUNICATIONS The Graphic Communications program introduces students to theoretical aspects as well as hands-on experiences using computers, darkroom equipment and printing presses. Students acquire marketable skills in job planning, design and layout, copy preparation, proofing, plate making, offset press operation, bindery and finishing. [Course Sequence Here](#)

Desktop publishing and computer graphics have become an essential part of the printing industry. To meet the demands of the industry, students acquire introductory skills in electronic imaging techniques using software applications including Adobe PhotoShop and PageMaker.

Prospective students should possess the following characteristics: creative mind, good typing skills, good background in English and spelling, strong mechanical skills, good attention to detail, organized and neatness.

COMPUTER NETWORKING This course is designed to provide students with classroom and laboratory experience in current and emerging networking technology that will empower them to further their education and training in the computer networking field. Instruction includes safety, networking, network terminology and protocols, network standards, local-area networks (LANS), wide-area networks (WANS), Open System Interconnection (OSI) models, cabling, cabling tools, routers, router programming, Ethernet, Internet Protocol (IP) addressing and network standards. Particular emphasis is given to the use of decision-making and problem-solving techniques in applying science, mathematics, communication and social studies concepts to solve networking problems. [Course Sequence Here](#)

In addition, instruction and training are provided in the proper care, maintenance and use of networking software, tools and equipment and all local, state and federal safety, building and environmental codes and regulations.

To pursue post-secondary education in the networking field students may choose to attend institutions such as Erie Institute of Technology, Fortis Institute, Pittsburgh Institute of Technology, Edinboro University, Slippery Rock University, and Penn State – Behrend College.

CONSTRUCTION CLUSTER

CONSTRUCTION TRADES This program prepares students to enter the building trades industry with marketable skills. This three-year program encompasses all phases of residential construction. [Course Sequence Here](#) The student will gain knowledge in the following areas:

- 1) Basic building materials
- 2) Blueprint reading
- 3) Brick and block laying
- 4) Rough framing
- 5) Door and window installation
- 6) Drywall hanging and finishing
- 7) Stair construction
- 8) Roofing and siding
- 9) Finish trim applications, and
- 10) Basic principles of wiring and plumbing.

First-year students learn how to safely operate hand and power tools. They acquire the fundamental skills and theory behind laying brick and block. The students also receive introductory lessons in framing, roofing and siding in the lab, along with related theory. Students study the different building materials used today and math skills related to the construction industry.

In the second year, students begin with floor framing and proceed to wall, ceiling and roof framing. Students learn by working on individual projects and then incorporating these skills in larger group projects. This provides training to work as a team, similar to that of a construction job site. The second-year student will be able to layout and construct stairs, install doors and windows and correctly apply roofing material. The students also learn how to read blueprints, specifications and detail drawings in order to determine

dimensions and materials to use in building projects. Students also learn cost estimating and material selection techniques.

Third-year students receive job-site experience through our cooperative education program or by participating in community-based construction projects. The students in Construction Trades have been very active constructing or renovating various buildings throughout Erie County.

Prospective students should have mechanical aptitude, coordination, stamina, physical strength, manual dexterity, mechanical dexterity and no fear of heights.

FACILITY MAINTENANCE TECHNOLOGIES This unique and highly versatile course offers several trades in one for the student who is interested in becoming a skilled craftsman in a variety of trades. [Course Sequence Here](#)

Course content includes shop safety, proper use of hand and power tools, basic construction, plumbing, painting, electricity, woodworking, finish carpentry and small engine repair.

Employment possibilities range from individual buildings to manufacturing and industrial companies, municipalities, school districts, hotels, hospitals, airports and large commercial operations.

Prospective students should have physical stamina, mechanical aptitude, responsibility, manual dexterity, coordination and patience.

HUMAN SERVICES CLUSTER

COSMETOLOGY Cosmetology is an art and a science involving the study of the skin, hair and nails. The Cosmetology program provides each student with the knowledge and skills required to become a licensed cosmetologist. The license requires 1250 hours of instruction. [Course Sequence Here](#)

The curriculum includes specialized classroom training in:

- 1) Hair and scalp analysis
- 2) Hair cutting, setting and styling techniques
- 3) Hair coloring and permanent waving
- 4) Skin care, facials and make-up techniques
- 5) Manicures and pedicures
- 6) Wig styling
- 7) Anatomy and physiology
- 8) Sanitation and sterilization
- 9) Salon management

Students receive hands-on experience by using mannequin heads and live models during clinic service. The proper use of tools, equipment, safety procedures and state laws and regulations are also important elements of the curriculum. Prospective students should possess creative and artistic aptitude; enjoy working with people, physical stamina, flexibility and patience.

CULINARY ARTS The Culinary Arts program assists the student who is interested in the fast-paced and ever-growing food services industry. The program offers a comprehensive presentation of basic principles and techniques necessary to obtain an entry-level position in the food service industry or prepare for continued training and education. [Course Sequence Here](#)

Incorporating theory and practical experience, this program introduces students to a variety of food preparation techniques using the schools fully equipped commercial kitchen and restaurant. Realistic instruction is provided by using the dining room, instructional kitchen, cafeteria, bakery and theory room.

Students learn the preparation of soups, sauces, salads, meats, shellfish, poultry, vegetables, presentation, garnishing and the preparation of desserts. In addition, instructional areas include safety and sanitation, proper use of equipment, purchasing, inventory control, menu planning, diet and nutrition, serving and food service management.

Prospective students should enjoy working with people and be able to work well under pressure; have physical stamina and coordination; good organizational skills; and basic math and reading abilities.

EARLY CHILDHOOD EDUCATION The Early Childhood Education program provides the student with the necessary skills for entry-level positions in the child care field, with an emphasis on the preschool environment. The students gain the knowledge of child development principles and will learn positive guidance techniques needed for working with children. [Course Sequence Here](#)

In this program, students participate in both group theory lessons and in individualized, self-directed training toward an occupational goal. Students select and work on competency-based learning guides, which lead to mastery of specific childcare skills in a preschool setting.

Curriculum areas include preschool teaching techniques, child development and growth, nutrition, art, music and children's literature. Students work three days per week in the Tech Tikes preschool as a Preschool Aide. * Prospective students should enjoy children and have a pleasant personality, even temperament, patience and good communication skills, particularly spelling and grammar.

HEALTH ASSISTANT The Health Assistant program is ideal for students considering a career in the health and medical field. This program introduces students to various career opportunities that exist in health care. It prepares the student to enter the health care system as a competent assistant to the health care professional. [Course Sequence Here](#)

The course exposes the student to health and medical practices such as physical therapy, occupational therapy, dietetics, medical office, nursing, medical secretary, and medical laboratory. Students are introduced to basic medical terminology, anatomy and physiology and beginning skills in medical procedures. An emphasis is placed on work attitudes necessary to be caring men and women sensitive to the complex needs of patients.

Prospective students should possess good communication and interpersonal skills, neatness and cleanliness, manual dexterity, good professional appearance, the ability to maintain confidentiality and the ability to lift fifty pounds.

TOURISM & HOSPITALITY MANAGEMENT When you work in lodging or food service, you're part of the hospitality profession. You are also part of the largest, fastest-growing industry in the world--travel and tourism, where opportunities abound. The Tourism & Lodging Management program has everything you will need to get started on a hospitality career. Upon graduation, students are ready to begin their hospitality career or continue their education at a college or university. [Course Sequence Here](#)

In this program, students participate in classroom activities that teach valuable lodging skills and knowledge. Students will also participate in internships supervised by the instructor and a worksite mentor. Major instructional units in the curriculum include: an overview of lodging management, the front office, housekeeping, leadership and management, marketing and sales, and food and beverage service.

The objectives of this program correspond to competency lists used in the American Hotel & Motel Association's Educational Institute's post-secondary curriculum and form the basis for articulation agreements with colleges and universities.

A national certificate from the Hospitality Business Alliance (HBA) will be issued to recognize student achievement both in the classroom and in the workplace. Future employers and college admissions officers will recognize the HBA credential as evidence of a graduate's preparation for hospitality success. This credential can put you on the road to management in one of America's largest industries.

MANUFACTURING CLUSTER

ELECTRICAL ENGINEERING Students in this program learn the fundamentals of electrical skills and theory. The Electrical Engineering Technologies students acquire the skills for employment in all industrial electric occupations. The students learn in detail the theory and hands-on application of alternating current, direct current, hydraulics, pneumatics, motor controls, programmable logic controllers and residential wiring.

Using a variety of hand tools and electrical testing equipment, the students learn how to wire a variety of industrial-rated components (relays, motor starters, motors, transformers, timing relays, push buttons, selector switches) and all components used in residential wiring applications. In addition, the students receive instruction in reading residential wiring schematics, motor control schematics, programmable logic controller schematics and hydraulic or pneumatic schematics.

Prospective students should possess mechanical aptitude, ability in basic math and manual dexterity.

METAL FABRICATION This is a comprehensive program designed to give students entry-level skills in the field of metal fabrication. Areas of study include the techniques and fundamentals of pattern development, fabrication, design, proper use of hand and power tools, acetylene welding, acetylene cutting, and metal inert gas welding. [Course Sequence Here](#)

Students experience training on a variety of machines. Emphasis is placed on bench work, precision measuring instruments, shearing, forming, rolling, assembly, welding, heat treatment, blueprint reading, layout and design, quality control, press brake operation, gas tungsten arc welding (tig) and shielded metal arc welding.

Prospective students need manual dexterity, mechanical aptitude, physical stamina and basic math skills.

PRECISION MACHINING The machinist is a skilled worker who forms and shapes metals from their raw state to a finely finished and accurately shaped part. Students trained in this program develop the necessary skills to be entry-level machinists. [Course Sequence Here](#)

The Tool & Die program gives students the opportunity to manufacture machine parts from various metals on machines such as engine lathes, vertical and horizontal milling machines, surface and cylindrical grinders, drill presses and the band saw. Students learn the properties of steel, aluminum and brass. Then they see how these properties are applicable in the trade.

This basic-to-advanced curriculum offers in-depth training from hand and power tools to state-of-the-art techniques such as computerized numerical control and electrical discharge machining. The understanding of shop mathematics, trigonometry, blueprint reading and precision measuring instruments are critical elements of this program.

Prospective students should possess above-average math skills, good work attitudes, mechanical aptitude, eye-hand coordination and the patience to work neatly and accurately.

TRANSPORTATION CLUSTER

AUTO BODY REPAIR This course presents current and future practices in the rapidly changing world of auto body repair. Projects and class work use the latest technologies, equipment and shop practices. The latest approaches to modern automobile repair and reconstruction require skilled workmanship. [Course Sequence Here](#) Students in the Auto Body program learn all phases of auto body repair including:

The proper use of hand and power tools; damage analysis; rebuilding, reconditioning, sanding and refinishing; basic metalworking and dent repair; frame straightening; spray painting; welding; glass

installation; and safety practices. Students also learn how to estimate, prepare job orders and general shop operation. The program uses demonstration automobiles to provide students with the opportunity to develop confidence by applying the theoretical concepts.

Prospective students should have good hand-eye coordination, manual dexterity, multi-limb coordination, mechanical aptitude, skill with tools, physical strength, accuracy and the ability to work with minimal supervision.

AUTOMOTIVE TECHNOLOGY Changes in automotive technology have increased the importance of the automotive technician. This program provides the student with the theory and practical experience needed to diagnose and repair automotive systems and their components. Students meeting the requirements will be eligible to take the state inspection test for a Class One License. [Course Sequence Here](#)

This course covers the repair and maintenance of the ignition system, tires, braking, steering and suspension, alignment, electrical and electronic systems, fuel injection, engine repair, engine performance and cooling system. Major and minor tune-up and inspection procedures are also included.

An appropriate share of the program is devoted to studying automotive theory. Students use repair manuals, textbooks and computers for diagnosing problems. A major emphasis of this course is to promote safe, clean and efficient work habits.

Prospective students should have mechanical aptitude, manual dexterity, skill with tools, physical stamina, good hand-eye coordination, physical strength, willingness to work in an uncomfortable environment and the ability to think logically.

ECTS WORK TRANSITION

Students with special education needs may be eligible to attend the Transition Center. Students must be recommended by their high school teachers, guidance counselor, and special education director. Students will receive a vocational assessment and have the opportunity to gain specific training in: Custodial Maintenance, Food & Dining Services, and Hotel Housekeeping.

REGIONAL CHOICE INITIATIVE-RCI / Dual Enrollment College Courses

Regional Choice Initiative-RCI is an opportunity for qualified students in grades 11-12 from Erie County Public High Schools to enroll in college level classes at a reduced tuition rate. This program is managed by the Intermediate Unit V. Edinboro University, Gannon University, Mercyhurst University, and Penn State Behrend, offer classes on Tuesday/Thursday mornings on the second floor of the Skill Center building adjacent to the Erie County Technical School, or at their campuses. Transportation is provided by UCASD to the Skill Center only. These courses are considered Dual Enrollment, allowing students to receive both College and High School Credit. ***Students taking these college credit courses will be required to pay reduced tuition fees plus the cost of books, payment plans are available through the UCASD Business Office. *RCI Course Offerings vary each semester and applications are available at the High School Guidance Office to eligible students.**

Eligibility

Participation in Regional Choice Initiative (RCI), Dual Enrollment Courses is available to students entering grade 11 and 12. Additionally, students in grades 9 or 10 with a Gifted IEP may also participate in this program if approved by the university. Students in grade 11 must have a 3.25 cum GPA and be enrolled in college prep courses including Physics or other advanced science courses, Foreign Language, and Algebra II or higher math. Students in grade 10 must have a 3.5 cum GPA and be enrolled in college prep courses including Chemistry, Foreign Language and Geometry or higher math. At Union City, RCI courses are primarily used as elective credit and generally do not replace core curriculum courses.

Eligible students complete an application and return it to the Guidance Office by a specified date. The application is forwarded on to Intermediate Unit V for processing; course scheduling is determined by the date of application and seat availability for the entire program. Additionally, students must be recommended by the high school principal or guidance counselor. **Students may include a maximum of four RCI/Dual Enrollment courses in their cumulative GPA on the weighted grading scale; any additional RCI courses will be calculated into the GPA on the non-weighted grading scale.** Students may lose the opportunity to continue in the RCI program, if they do not maintain a “C” average in each of their regular and/or RCI courses. ***Any student who is participating in RCI and fails either a Union City or RCI course will not be permitted to continue in the RCI program in the future. Students will not be permitted to begin a new RCI course if they have any outstanding amounts still owed on previous courses.**

The Union City Area School District prohibits discrimination, including sexual harassment, on the basis of race, color, age, creed, religion, sex, sexual orientation, ancestry, national origin, marital status, parenting status, pregnancy or handicap/disability in its activities, programs or employment practices. More information regarding the complaint process and complaint forms can be found [here](#).

Helpful Online Resources for Students and Parents

FAFSA (Free Application for Federal Student Aid)

www.FAFSA.gov – Seniors who plan to attend or are thinking about attending a postsecondary school upon graduation should use this website to apply for financial aid.

www.fsaed.gov -- Use this website to apply for the: **FSA ID** username and password that students & parents will use to electronically sign the FAFSA before electronically filing it with the government **The FAFSA is a FREE APPLICATION! It is free to complete and send electronically. If anyone is charging you to file this application, then you are at the wrong website.**

College & Scholarship Resources

<http://aessuccess.org>

<http://estudentloans.com>

<http://www.actstudent.org> - ACT College Entrance Test

<http://www.collegescholarships.com>

<http://www.collegeboard.com> - SAT College Entrance Test

<http://www.collegeispossible.org>

<http://www.ed.gov/about/offices/list/ope/index.html?src=mr>

<http://www.educationplanner.org>

<http://www.fastweb.com> - Scholarship Search

<http://www.finaid.org>

<http://www.march2Success.com> - Free online test prep for ASVAB or SAT

<http://www.pasfaa.org>

<http://www.petersons.com>

<http://www.pheaa.org> - Pennsylvania Higher Education Assistance Agency- State Grant Filing Site

<http://www.princetonreview.com>

<http://www.scholarships.com>

<http://www.students.gov>

<http://www.upromise.com>

<http://www.YouCanDealWithIt.com>