

# Cocalico High School

Educational Planning Guide

Classes 2021 through 2022



***Every Child...Every Chance...Every Day...***

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# Cocalico High School

## Educational Planning Guide

### 2021-2022

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This Educational Planning Guide is intended to provide students and their parents with information about the educational program, graduation requirements, and courses of study at Cocalico High School.

Planning your program for four years of high school requires self-appraisal with regard to your capabilities, interests, and goals. A familiarity with the various courses of study and a knowledge of the required courses are needed for sufficient progression in the educational process.

Serious consideration should be given to your selection of courses which will be consistent with your chosen pathway, aptitudes, interests, abilities, and post-high school plans.

Cocalico High School will make a serious attempt to schedule you for all of the courses you desire. Please note that in some cases enrollment changes and staffing needs may dictate the cancellation of certain elective courses and advanced courses. It is, therefore, important to consider alternate options when planning your selection of courses. Students and parents are invited to consult with teachers and counselors for assistance in planning their program. Parents may make appointments with counselors by calling 717-336-1427 or 717-336-1442.

Chris Irvine.....	High School Principal
Scott Bennetch.....	High School Assistant Principal
Andrew Price.....	High School Assistant Principal
Anthony DiMatteo.....	Middle School Principal
Samantha Bensing.....	Middle School Dean of Students
Shawn Clicquenoii.....	Counselor – Grades 9-12 (A-Ha)
Drew Shimko.....	Counselor – Grades 9-12 (Hb-O)
Krystal Waltman.....	Counselor – Grades 9-12 (P-Z)
Stacey Sola.....	Middle School Counselor
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# Course Summary

Course	Code	Credit	Pg.	Course	Code	Credit	Pg.
<b>AGRICULTURE</b>				<b>FAMILY AND CONSUMER SCIENCES</b>			
			21	Foods and Baking	596	1.0	39
<b>ART EDUCATION</b>				Sewing and Fashion Design	581	1.0	39
Introduction to Studio Art (2D)	480	1.0	24	Skills for Success	598	1.0	40
Advanced 2D Studio Art	481	1.0	24	Child Development	570	1.0	40
Independent Study/Portfolio	482	1.0	25	<b>LEARNING SUPPORT</b>			
Foundations to Ceramics & 3D	483	1.0	25	Direct Instruction Classes			41
Contemporary Throwing and Hand Building	484	1.0	25	S.K.I.L.L.S	879	1.0	42
Advanced Wheel Throwing and Hand Building 3D	485	1.0	26	Transition Skills	884	1.0	42
Sculpting	486	1.0	26	<b>MATHEMATICS</b>			
Independent Advanced Clay and 3D	487	1.0	26	Pre-Algebra	098	1.0	44
Art in Action	488	1.0	27	*kAlgebra I	103	1.0	44
<b>BUSINESS</b>				*Algebra I A	103A	1.0	44
AP Microeconomics	423	1.0	28	*kAlgebra I B	103B	1.0	45
Computer Programming	404	1.0	28	Keystone Enrichment-ALG	096	1.0	45
Economics Through the Stock Market	405	1.0	29	*Algebra II	113	1.0	45
Accounting I	408	1.0	29	*Honors Algebra II	114A	1.0	46
Accounting II	409	1.0	29	*Geometry	123	1.0	46
Accounting III	410	1.0	30	*Honors Geometry	124A	1.0	46
Microsoft Office & Information Technologies	413	1.0	30	*Pre-College Math	132	1.0	47
Entrepreneurship and Management	420	1.0	30	*Pre-calculus/Trigonometry	135	1.0	47
Cocalico Internship	427	1.0	31	*Honors Pre-calculus/Trig.	135A	1.0	47
Career Seminar	422	1.0	31	*Statistics	140	1.0	48
Marketing	426	1.0	31	*AP Statistics	142	1.0	48
<b>COMMUNICATION &amp; LITERATURE</b>				*Applied Calculus	143	1.0	48
*kAmerican Literature & Comp	003	1.0	32	*AP Calculus AB	144	1.0	49
*kEnglish10: Communications Arts	031	1.0	33	*AP Calculus BC	146	1.0	49
*English 11: Communication Arts	032	1.0	33	*AP Computer Science A	147	1.0	49
*English 12: Communication Arts	033	1.0	33	Logic-Problem Solving	130	1.0	50
*World Literature & Comp	014	1.0	34	<b>MUSIC</b>			
*British Literature & Comp	004	1.0	34	Music Production I	493	1.0	51
*Thematic Interpretations of Literature and Media	024	1.0	35	Music Production II	494	1.0	51
*AP Literature & Composition	008	1.0	35	Music Theory	509	1.0	52
*AP Language & Composition	009	1.0	36	Music Theory II	495	1.0	52
Language Acquisition	833	1.0	36	Applied Music Performance I	539	1.0	52
Literacy Enrichment	021	1.0	37	Guitar, Piano, Voice			
*Speech/Creative Writing	052	1.0	37	Applied Music Performance II	540	1.0	53
Journalism	022	1.0	38	Guitar, Piano, Voice			
Research Skills	025	1.0	38	Movie Music (Modern Music Media)	497	1.0	53
				Choir I	500	1.0	53
				Choir II	502	1.0	54
				Wind Ensemble I	507	1.0	54
				Wind Ensemble II	510	1.0	54
				Wind Ensemble I/Choir I	512	1.0	55
				Wind Ensemble II/Choir II	516	1.0	55
				Choralaires (Focus)	517	.5	55

\*NCAA Approved Course  
k -Keystone Course

# Course Summary

## **MUSIC (continued)**

<b>Course</b>	<b>Code</b>	<b>Credit</b>	<b>Pg.</b>
Symphonic Band (Focus)	518	.5	56
Symph. Band/Chorales (Focus)	519	.5	56

## **PHYSICAL EDUCATION**

Physical Education 10	606	.5	57
Health I	600	.5	57
Physical Education 11	607	.5	58
Health II	603	.5	58
Adapted Physical Education	816	.5	58

## **SCIENCE**

*kBiology	204	1.0	59
*kHonors Biology	204A	1.0	60
*Anatomy and Physiology	205	1.0	60
*AP Biology	206	1.0	60
*Chemistry	207	1.0	61
*Chemistry in the Community	219	1.0	61
*AP Chemistry	208	1.0	61
*Physics	209	1.0	62
*AP Physics	210	1.0	62
*Environmental Science	214	1.0	62
*Astronomy/Meteorology	215	1.0	63
*Principles of Technology	217	1.0	63
Drones	220	1.0	63
Introduction to Forensics	222	1.0	64

## **SENIOR ELECTIVE OPTION**

Service Learning	925	.5	65
Financial Literacy	416	.5	65
Physical Education 12	608	.5	66
Life-long Personal			
Communication Skills	055	.5	66
Online Course		.5	66

## **SOCIAL STUDIES/CITIZENSHIP**

*World Studies	703	1.0	67
*Civics and Government	710	1.0	67
*AP United States History	706	1.0	68
*AP European History	730	1.0	68
AP United States Gov. & Politics	734	1.0	68
*Psychology	720	1.0	69
*Sociology	721	1.0	69
*Military History	715	1.0	69
Contemporary Issues	735	1.0	69
*Local Studies	729	1.0	70

## **TECHNOLOGY EDUCATION**

Materials Technology I	551	1.0	71
PLTW Digital Electronics	561	1.0	72
PLTW Introduction to Engineering Design	534	1.0	72

\*NCAA Approved Course  
k -Keystone Course

## **TECHNOLOGY EDUCATION (continued)**

<b>Course</b>	<b>Code</b>	<b>Credit</b>	<b>Pg.</b>
PLTW Principles of Engineering	562	1.0	72
Digital Photography	548	1.0	73
Digital Design and Print Media	552	1.0	73
Energy, Power & Transportation	523	1.0	73
Construction Technology	524	1.0	74
Computer Aided Design and Drafting	533	1.0	74
Manufacturing	527	1.0	74
Digital Film Making	550	1.0	75
TV Production I	538	1.0	75
TV Production II	541	1.0	75
TV Production III	546	1.0	76
TV Production IV	547	1.0	76
Yearbook Production I	044	1.0	76
Yearbook Production II	045	1.0	77
Yearbook Production III	046	1.0	77
Yearbook Production IV	047	1.0	77
Exploring Technology	560	1.0	77

## **WORLD LANGUAGE**

*Spanish I	301	1.0	78
*Spanish II	302	1.0	78
*Spanish III	303	1.0	79
*Spanish IV	304	1.0	79
Spanish for Careers	318	1.0	79
Hispanic Film & Culture	319	1.0	80
*AP Spanish Language & Culture	316	1.0	80
*German I	305	1.0	81
*German II	306	1.0	81
*German III	307	1.0	81
*German IV	308	1.0	82
AP German Language & Culture	317	1.0	82

## **CAREER & TECHNOLOGY CENTER**

Brownstown	7.0	84
Mt. Joy	7.0	84
Willow Street	7.0	84
CTC Cluster Programs	2.0	84

## Arts and Communications Pathway (AC)

This Pathway is designed to develop students' awareness, interpretation application, and production of visual, verbal, and written work. Careers in this pathway are linked to the humanities and include performing, visual, and literary arts as well as the communication media. Some occupations include those in creative writing, dance, editing, film, fine arts, graphic arts, journalism, modeling, music, photography, radio, telecommunications, theater, and translating.

<b>PATHWAY FOCUS AREAS:</b> Performing Arts, Visual Arts, Publishing Arts
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<i>Are you interested in...</i>	<i>Can you...</i>	<i>Do you enjoy...</i>
News Reporting and Writing Interviewing and Reviewing Multi-Media Productions Acting Radio, TB, Film, Video Performing in a band, chorus Attending Concerts Designing logos or objects such as cars or toys	Sing Play an Instrument Be Creative Act Articulate Clearly Write and Conduct Interviews Meet Deadlines Sell Express yourself artistically	Writing Making Videos Working with Film props Seeking Creative Ideas Working with Sound Effects Performing in Front of a Live Audience Working with your hands to create Work with Computers

If you answered "yes" to most of these questions, you might consider a future in one of the sample occupations listed below based on their level of post-secondary training.

### SAMPLE CAREERS

<i>Entry (OJT)</i>	<i>Technical/Skilled (1-3 yrs)</i>	<i>Professional (4 or + yrs)</i>
Model Radio Operator Stage Hand Stunt Performer Film Loader Floral Designer Florist Sound Technician Desktop Publisher Circulation Copy Person Newsroom Worker Announcers Dancer Photographer TV, Video & Motion Picture Operator	Actor Graphic Designer Choreographer Dancer Disc Jockey Musician Talent Agent Animator Jeweler Make-up Artist Recording Engineer Video Manager Web Designer *Desktop Publisher Culinary	Art or Music Teacher Cinematographer Composer Film Editor Music or Art Critic Music Director News Broadcaster Graphic Designer Culinary Architect Curator Advertising Creator Art Director Industrial Designer Copy Writer Telecommunications Illustrator Writer Interior Designer Producer & Director Editor Fashion Designer Multi-Media Artist

*\*High Priority Occupations – job categories that are in demand by employers, have higher skill needs, and are most likely to provide family sustaining wages*

## Business, Information Management AND Marketing Pathway (BIMM)

This Pathway is designed to prepare students for careers in the world of business, finance, and information services. Careers in this pathway are in the fields of business and marketing. Some occupations include those in accounting, administrative support staff, advertising, computer science, distribution, finance, insurance, international business, management, marketing research, merchandising, personnel, purchasing, real estate, sales, and tourism.

**PATHWAY FOCUS AREAS:** Marketing and Sales; Finance; Information Technology; Business Management

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

If you answered “yes” to most of these questions, you might consider a future in one of the sample occupations listed below based on their level of post-secondary training.

### SAMPLE CAREERS

<i>Entry (OJT)</i>	<i>Technical/Skilled (1-3 yrs)</i>	<i>Professional (4 or + yrs)</i>
Customer Service Representative Reservation/Travel Agent *Telemarketer Book Keeper Cashier Payroll Clerk Title Searcher Computer Operator Accts. Payable Office Mgr. Admin. Assistant Bank Teller File Clerk Retail Sales Clerk School Secretary *Advertising Sales Agent	Computer Salesperson Retail Buyer Bank Collection Officer Tax Preparer *Claims Adjuster Software Engineer Computer Programmer Production Support Analyst Desktop Publisher Medical Secretary Real Estate Agent Restaurant Manager *Sales Representative *Computer Support Specialist	Marketing Manager Certified Public Accountant Economist *Financial Manager *Securities Sales Representative E-Commerce Analyst *Systems Software Engineer *Systems Analyst Hospital Administrator Human Resources Manager Chief Executive Officer Manufacturing Sales Representative *Management Analysts

*\*High Priority Occupations—job categories that are in demand by employers, have higher skill needs, and are most likely to provide family sustaining wages*

# Engineering/Industrial & Technological Sciences Pathway (EITS)

This Pathway is designed to develop students' interests, awareness, and application to areas related to technologies necessary for design, development, installation, and maintenance of physical systems. Careers in this pathway are related to engineering, science, technology, construction, manufacturing, and transportation. Some occupations include airline pilots, archeologists, architects, assemblers, carpenters, drafters, engineers of all types, machinists, mechanics, scientists, tool and die makers, and truck drivers.

**PATHWAY FOCUS AREAS:** Construction and Architecture; Engineering and Engineering Technology; Manufacturing; Transportation, Distribution and Logistics

<i>Are you interested in...</i>	<i>Can you...</i>	<i>Do you enjoy...</i>
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 Curious how things work	Apply science and math to real world Read and understand directions Solve problems of a complex nature Understand directives and read maps Organize reports and people See a task through to completion Use Computer	Travel Working with your hands Designing/working with projects, models and prototypes Working in a lab setting Working on a team Building with your hands Operating tools and equipment Pay close attention to detail

If you answered "yes" to most of these questions, you might consider a future in one of the sample occupations listed below based on their level of post-secondary training.

## SAMPLE CAREERS

<i>Entry (OJT)</i>	<i>Technical/Skilled (1-3 yrs)</i>	<i>Professional (4 or + yrs)</i>
Carpet Installer Drywall Worker *Roofer Machine Operator Baggage Handler Dockworker Freight Handler Laborer Warehouse Worker *Industrial Machine Mechanic	Grader & Dozer Operator Electric Technician Metal Engineering Technician Auto Mechanic Air Traffic Controller Auto Body Repair Bus Driver Diesel Mechanic Dispatch Motorcycle Mechanic Taxi Driver Truck Terminal Manager Civil Engineering Technician Robotics Technician *CAD/CAM Technician Laser Technicians Production & Operating Workers Supervisor Welder Draftsman Digital Designer	Navigator Aeronautical Engineer Aerospace Engineer Airline Pilot Architect Civil Engineering Chemical Engineer Computer Network Engineering Industrial Engineer Mechanical Engineering Astronaut *Nuclear Engineer Petroleum Engineer NASA Scientist Transportation Engineer Industrial Production Manager Purchasing Agent Technical Writer *Construction Manager *Cost Estimators
<i>Apprenticeships</i>		
Brick Mason Carpenter Electrician *HVAC Plumber Machinist Diesel Mechanic Surveyor		

*\*High Priority Occupations — job categories that are in demand by employers, have higher skill needs, and are most likely to provide family sustaining wages*



## Human and Family Services (HFS) Pathway

This Pathway is designed to develop students' interests, skills, and experiences for employment in careers related to familiar and human needs. Careers in this pathway are linked to family/consumer, economic, political, and social systems. Some occupations in this career focus area include those in hospitality and recreation, public and community service, and the broad field of social services. Careers such as those in childcare, cosmetology, economics, education, fire protection, food service, government, history, hotel and restaurant services, law, law enforcement, the military, and recreation may be found in this career pathway.

**PATHWAY FOCUS AREAS:** Counseling; Personal Care; Education; Law, Public Safety, and Government, Hospitality and Tourism

<i>Are you interested in...</i>	<i>Can you...</i>	<i>Do you enjoy...</i>
Working with People Owning Your Own Business Aging Adults Child Development Family & Social Services Food Preparation Teaching Counseling	Organize Well Plan and Direct Programs Be Creative Communicate Well Assume Leadership Work with a Team Use Inter-personal Skills Be Conscientious and Dependable Plan Budgets	Communication Services Helping and Protecting Others Working with People Counseling and Advising People Serving Others' Needs Interviewing People Selling Products or Services Handling Customer Complaints Searching for Answers to Human Problems

If you answered "yes" to most of these questions, you might consider a future in one of the sample occupations listed below based on their level of post-secondary training.

### SAMPLE CAREERS

<i>Entry (OJT)</i>	<i>Technical/Skilled (1-3 yrs)</i>	<i>Professional (4 or + yrs)</i>
Cosmetics Representative Dry Cleaning Operator Home Health Aide Library Assistant Armed Services Career Bailiff Postal Services Worker Security Guard Utility Worker Aerobics Instructor Travel Agent Waitress *Teacher's Assistant Baker *Home Care Aide Textile Alternation	Barber Cosmetologist Fashion Designer Manicurist Massage Therapist Mortician Truck Driver Teacher's Aide Armed Services Career Crime Lab Technician Fire Fighter Bartender Chauffer Flight Attendant Meat Cutter Personal Trainer Postmaster Chef	Funeral Director Marriage & Family Therapist *College Professor *Principal *Teacher City Manager Criminologist FBI Agent Lawyer Parole Officer *Mental Health Counselor Park Ranger Workforce Director Athletic Agent Executive Chef Family Planner Food Services Manager Hotel/Motel Management

**\*High Priority Occupations**—job categories that are in demand by employers, have higher skill needs, and are most likely to provide family sustaining wages

## Health and Natural Resources Science Pathway (HNRS)

This Pathway is designed to develop students' interests in the life, physical, and behavioral sciences and in the planning, managing, and providing of therapeutic services, diagnostic services, health information, and biochemistry research development. Careers in this pathway are part of the health services field. They include occupations in hospital services, medical technology, medicine, nursing, optometry, pharmacy, psychiatry, psychology, therapy, and others. Careers in this pathway are related to the environment and natural resources and include occupations in agribusiness, agriculture, animal science, veterinary science, forestry, horticulture, and wildlife management.

**PATHWAY FOCUS AREAS:** Health Science; Agriculture, Food, & Natural Resources; Science, Technology, and Math

<i>Are you interested in...</i>	<i>Can you...</i>	<i>Do you enjoy...</i>
Health Care Environment Science and Medicine Medical Research Food Production Environment & Conservation Pharmacy Physical Therapy Sports/Fitness Information Systems Conservation Radiology	Pay Attention to Detail Use a computer and technology Work in a lab setting or medical facility Apply a 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	Diagnosing and caring for sick animals Work outdoors with wildlife Solving problems 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 most of these questions, you might consider a future in one of the sample occupations listed below based on their level of post-secondary training.

### SAMPLE CAREERS

<i>Entry (OJT)</i>	<i>Technical/Skilled (1-3 yrs)</i>	<i>Professional (4 or + yrs)</i>
Hospital Worker Patient Care Technician Dialysis Technician EEG Technician *Home Health Aide Physical Therapy Aide Animal Caretaker Breeder Extension Service Worker Food Conservation Worker Wildlife Reserve Worker Hazardous Waste Technician Optician Data Entry Surgical & Mapping Technicians	Certified Nursing Assistant *Dental Hygienist Licensed Practical Nurse *Medical Lab Technician *Radiological Technician Respiratory Therapist Dental Lab Technician Fish & Game Worker Forest Conversationalist GPS Technician Surveyor *Veterinary Technician Nano Technician Sound Engineer Personal Trainer *Emergency Medical Tech. *Biological Technicians Chemical Technicians	Athletic Trainer Speech/Language Pathologist Dietician *Physician Assistant Medical Examiner *Pharmacist Physician *Physical therapist Registered Nurse Agronomist *Environmental Scientist Geologist Marine Biologist Soil Conversationalist *Veterinarian Chemist Geneticist Statistician Zoologist *Nuclear Engineer

**\*High Priority Occupations**—job categories that are in demand by employers, have higher skill needs, and are most likely to provide family sustaining wages

# Planning Your High School Program

## I. Credit Requirements for Graduation

As specified in Cocalico School District's Comprehensive Plan students must demonstrate achievement of all state-required standards. All students will demonstrate achievement of these standards through the successful completion of high school credits.

Required Courses	Credits
Communication and Literature	4
Mathematics	4 <sup>1</sup>
Science	4 <sup>1</sup>
Social Studies/Citizenship	3
World Language	1 <sup>2</sup>
Grade 9 P.E./Music	1
Grade 10 P.E./Health	1
Grade 11 P.E./Health	1
Senior Elective Options	1
Personal Finance/Survival Skills	1
Electives	7
Total	28

<sup>1</sup> - Full-time Career and Technology Center (CTC) students need only three credits of Mathematics and Science at CHS for graduation.

<sup>2</sup> - Students enrolled in Literacy Enrichment will be exempt from this requirement.

## II. Keystone Exams

Under SB 1095 there are provisions for multiple alternatives to graduation beyond proficiency on each of the three Keystone Exams. Here is a summary of the various pathways students could navigate to receive a diploma under this proposal:

1. Attain a proficient or advanced score on the three Keystone Exams in Algebra I, Biology and Literature.
2. Attain a proficient score on at least one of the Keystone Exams and at least a basic on the other two and have the combined scores of these exams meet or exceed a state-specified composite score determined to be acceptable.
3. Meet or exceed local grade requirements in areas tested in the Keystone Exams and one of the following: attain at least a state-specified passing score on the SAT, PSAT, ACT, Advanced Placement exam in any subject area, international baccalaureate exam in any subject area, earn a gold or platinum score on a Work Keys certificate exam that determines career readiness, pass the military entrance exam, complete a dual enrollment course in any subject area, complete a pre-apprenticeship program, or gain acceptance into a four-year higher education institution and show evidence of the ability to handle college-level work.
4. Meet or exceed local grade requirements in areas tested in the Keystone Exams and obtain an industry-based competency certification related to the career and technical education student's program of study or demonstrates a likelihood of success in an industry-based competency exam.
5. Meet or exceed local grade requirements in areas tested in the Keystone Exams and three pieces of evidence demonstrating "readiness for meaningful postsecondary engagement" consistent with the career plan that students, starting this year are required to develop. The evidence must include one of the following: a silver score on the Work Keys exam, a state-specified acceptable score on the SAT, acceptance into community college or postsecondary institution other than a four-year college and proof of ability to handle college-level work, attaining an industry-recognized credential, attaining at least a state-set score on an Advanced Placement exam or international baccalaureate exam, or completing a dual enrollment course. Additionally, this option allows for the following to be evidence of graduation readiness: completion of a pre-approved service learning project, attaining

a proficient or advanced score on a Keystone Exam, a letter guaranteeing full-time employment, completion of an internship/externship/cooperative education program, attaining at least a 2.0 in the National Collegiate Athletic Association's core courses for college-bound student athletes, or meeting or exceeding local grade requirements in any science, technology, environment and ecology course.

6. Satisfactory completion of the program developed by an individualized education program team in the case of a student with disabilities.

### **III. Senior Elective Option**

Seniors will choose from 5 half-credit options in order to fulfill their one credit senior elective. Seniors are required to select two of the following options:

- 1) Physical Education 12\*
- 2) Service Learning \*
- 3) Financial Literacy\*
- 4) Online Course\*\*
- 5) Life-long Personal Communication Skills\*

\*See course descriptions in the Educational Planning Guide

\*\*See guidance counselors for online course selections and descriptions.

### **IV. Advanced Placement (AP) Courses**

Cocalico High School (CHS) offers the following Advanced Placement (AP) courses: Language and Composition, Literature and Composition, Biology, Chemistry, Physics, Calculus AB, Calculus BC, Statistics, Microeconomics, United States History, European History, United States Government and Politics, Spanish and German. See the appropriate section of this booklet for course descriptions.

The AP program provides high school students with an opportunity to achieve college credit while in high school. This program is a cooperative educational venture between the College Board and CHS. It is based on the fact that many young people can complete college-level studies in their secondary schools, and it represents a desire of schools and colleges to foster such experiences.

AP serves three groups:

1. Students who wish to pursue college-level studies while still in secondary school
2. Schools that desire to offer these students the opportunity to do so
3. Colleges that wish to encourage and recognize such achievement.

It does this by providing practical course outlines of college-level courses to interested high schools and student results of examinations based on these courses to the colleges of the students' choice.

Participating colleges, in turn, grant credit and/or appropriate placement to students who have done well on the examinations. Thus, the AP program is an instrument of cooperation that extends the educational opportunities available to students by effectively relating college-level courses at thousands of schools to appropriate credit and placement at the colleges that the students eventually attend.

The AP examinations are offered throughout the world each May. No examination is longer than three hours. Examinations are administered at participating schools. Students will receive a grade and credit for each AP course completed. To receive college credit, a satisfactory score must be achieved on the AP examination and accepted by the college. Students enrolled in an AP course are expected to take the AP examination.

## **V. Alternative Opportunities**

### **A. Dual Enrollment**

This program allows high school juniors or seniors to take college courses at the following schools: Millersville University, Harrisburg Area Community College (Lancaster campus), Penn State (Berks campus), Thaddeus Stevens College of Technology, Lancaster Bible College and the Pennsylvania College of Health Sciences. These courses must be non-remedial college courses and are not offered in the high school curriculum. Students interested in taking college level courses should contact their counselor for available opportunities.

### **B. Work Experience**

This program is for seniors only. No credit will be awarded for this program. Students are still required to meet the graduation requirements that have been established for their class. Employment verification must be submitted.

### **C. Cocalico Internship**

This program is a career exploration and training program for seniors only that is established as a partnership between Cocalico High School, local business/industries and the students of Cocalico High School. The main focus of the program is to support students in identifying careers of interest and working with local employers to establish training plans for the students to learn more about their career interest in an authentic environment. Student internship experiences will require that students work a minimum of 120 hours per semester.

### **D. Online Learning-Cocalico Connections**

A variety of core and elective online courses are available to students through the Cocalico Connections program. Students who are interested in online learning options should discuss their educational goals with their counselor. If online courses seem to be the best approach to meeting those goals, the following steps will be implemented before final determination is made regarding enrollment in online courses or a full-time online program:

1. Students will complete an inventory assessing their readiness to be online learners.
2. Students, parents, and counselors will meet to discuss the differences between online learning and the traditional classroom setting.
3. Administrative approval must be obtained.

Three online options are available to students:

1. Full-time On-line Offsite – students complete all courses online at home.
2. Full-time Online On-site – students complete all courses online in the school's online learning lab.
3. Hybrid Online – students take a mixture of online and traditional classes. Online courses can be taken at home or in the school's online learning lab, depending on student needs and access to transportation.

Students in an online course will be expected to meet the requirements of the course at the specified due dates. Grading and credits will be awarded according to the same guidelines that apply to the traditional program. Students who are full-time online students will also have the same expectations for course completion and credit requirements as in the traditional program. Additional information regarding online learning may be obtained in the counseling office at CHS. More information can also be obtained by visiting our online website. A link for the Cocalico Connections website can be found on the high school's homepage under the "Support Programs" tab.

### **E. Thaddeus Stevens College of Technology Early Enrollment Program**

This partnership with TSCT allows students to complete their senior year of high school while completing their freshmen year of college. Students apply to the program during their junior year of high school and all classes would be taken at Thaddeus Stevens during their senior year. Students need a 2.5 GPA or higher to apply and there is a February 1<sup>st</sup> deadline. Early Enrollment tuition is 50% reduced for the senior year, and students are eligible to apply for financial aid. Students should complete the FAFSA between October 1 and May 1 of their junior year to pursue financial aid. Students must be able to transport themselves to Thaddeus Stevens College of Technology in Lancaster, PA. The typical length of day is 7:30 a.m. to 4:30 p.m.

## **F. The Global Scholars Program**

The Global Scholars Program is an interdisciplinary program that helps cultivate globally minded students who, upon graduation, will be better prepared to negotiate our increasingly international society. This program is sponsored by Pennsylvania State Modern Language Association (PSMLA). Students will be better equipped for acceptance to a university and other post-secondary programs, professional and personal success in the global community and marketplace, and future employment.

Candidates must:

- Take four years of a world language at the high school with at least a B average in each course
- Take four credits of courses global in nature with a B average (some examples: World Studies, English 10, Concert Choir/Band, AP Microeconomics, etc.)
- Complete 20 hours of community service that are global in nature
- Participate in four extra-curricular activities that explore global aspects
- Complete eight literature/media reviews (at least four books) that are standards-based and reflect higher-level thinking skills

Upon successful completion of the program, students will receive a certificate, honors cords (for purchase) and credentialing on their transcript. Contact a world language teacher for more information.

## **VI. Exceptions to Planned Course Selection**

The following exceptions apply to online, dual enrollment, and options for testing out of a course.

1. Students must obtain administrative approval prior to enrolling in any correspondence course or online course.
2. Online courses may be used for credit recovery when a student fails a course during the school year.
3. Online courses may be used to attain the credits necessary for early graduation with prior administrative approval.
4. Additional online courses (beyond the full high school load of 4 credits per semester) may be taken for the purpose of enrichment. The course will be noted on the student's transcript; however, it will not count toward a student's grade point average.
5. Dual enrollment classes may be taken in place of an elective course. In this case, college classes will count as high school classes with credit and for a grade. This option is available for juniors or seniors only, based on the agreement we have with participating colleges.
6. If the student is already carrying a full load at the high school (4 credits per semester), any college courses should be used for the purpose of enrichment. The class will be noted on the student's transcript; however, it will not count toward a student's grade point average.

Students requesting to opt out of a required or prerequisite course must demonstrate solid mastery of the content of the course prior to the start of the course in order to be considered for approval for opting out. A score of Advanced on a Keystone Exam (if it is a Keystone course) or performance of 90% or higher on local assessments will be required. Other factors may also be considered, and final approval is at the discretion of the high school principal. In the rare instances that testing out is approved, a course may be listed on the student's transcript; however, no credit will be awarded for the course. It should be clearly noted on the transcript that the student tested out of the program. Parents and students must be aware of the details related to testing out and they must both sign a consent form.

## **VII. Summer School Options for Credit Recovery**

CHS offers on-line summer school courses which are interactive, highly engaging, and provide feedback to students as they work through course materials. Students meet with a Cocalico teacher at the onset of the course and then are required to attend two sessions per week in the high school. Exams are taken with the teacher. The cost to each student is a \$175 per course. Additional information may be obtained in the counseling office at the high school.

## VIII. Instruction and Procedures for Completing Course Selection Forms

1. Become thoroughly familiar with the information about the courses available. Pay special attention to the pathway and recommended career cluster(s) appropriate for each course. Study the graduation requirements for your class and make sure all required courses are included in your course selection. It is your responsibility to read the information and be informed.
2. As you consider which courses best meet your needs and interests, keep in mind the following factors:
3. Your past school records
4. Your abilities and aptitudes
5. Your plans following high school graduation
6. Check with present or past teachers, available teachers at parents' night, or your school counselor for information about classes you are considering.
7. Be certain the courses you select are the ones you want to follow since these choices become finalized and sent to you in the August mailing. Dropping courses will be permitted only with administrator/counselor approval.
8. Every effort will be made to schedule your choice of subjects. In case of a schedule conflict, students will be contacted by the counselors.
9. Parents are invited to consult with counselors for assistance in planning school courses of study. Every attempt will be made to schedule conferences at parents' convenience. To schedule a conference, call 336-1427 or 336-1442.

## IX. Calculating Grade Point Average

Grade Point Average (GPA) calculations are achieved by converting the letter grade to a numerical value (as listed below) and multiplying it by the credit value of the course. After calculating each course, find the sum of the courses and then divide it by the total number of courses. Example:

Course	Letter Grade	Point Value*	Credit Value	Total
AP Biology	B=	3X	1.00	3.00
English	A=	4X	1.00	4.00
Geometry	C=	2X	1.00	2.00
Business Ed	B=	3X	1.00	3.00
4 Courses				12.00
12.00 divided by 4=3.00 GPA				
*Point Value for Letter Grades ...A=4 points; B=3 points; C=2 points; D=1 point				

*Only final grades and final GPAs will be listed on student transcripts*

## X. Weighted Class Rank

Weighted grading is used ONLY for determining class rank, which uses a system as described by the following chart and formula.

Grading		
Percent Grade	Letter Grade	Numerical Equivalent
98-100	A+	12
93-97	A	11
90-92	A-	10
87-89	B+	9
83-86	B	8
80-82	B-	7
77-79	C+	6
73-76	C	5
70-72	C-	4
67-69	D+	3
63-66	D	2
60-62	D-	1
0-59	F	0

The following quality point values are used for courses.

The following are examples of computations of weighted grades:

AP/College Level Courses =		6 Quality Points						
College Prep Courses =		5 Quality Points						
General Courses =		4 Quality Points						
Developmental Courses =		3 Quality Points						
Co-Curricular Courses =		1 Quality Points						
Course	Grade	Numerical Equivalent	x	Quality Points	x	Course Credit	=	Course Value
AP Biology	A	11	x	6	x	1.0	=	66.0
CP English	B-	7	x	5	x	1.0	=	35.0
Algebra II	B	8	x	5	x	1.0	=	40.0
Art	C+	6	x	4	x	1.0	=	24.0
Phys. Ed.	A-	10	x	4	x	0.5	=	20.0

The cumulative sum of the course value calculations determines a student's class rank status within his/her graduating class. Final grades for each course are used in determining class rank.

## XI. Transcripts

The student transcript will include the following: Class Rank, Final Grades, Final GPAs, Attendance, and Keystone Exam results.



# ONE OPPORTUNITY. LIMITLESS POSSIBILITIES.

If you want to play sports at an NCAA Division I or II school, start by registering for a Certification Account with the NCAA Eligibility Center at [eligibilitycenter.org](https://eligibilitycenter.org). If you want to play Division III sports or you aren't sure where you want to compete, start by creating a Profile Page at [eligibilitycenter.org](https://eligibilitycenter.org).

## ACADEMIC REQUIREMENTS

To play sports at a Division I or II school, you must graduate from high school, complete 16 NCAA-approved core courses, earn a minimum GPA and earn an ACT or SAT score that matches your core-course GPA.

## CORE COURSES

Visit [eligibilitycenter.org/counselist](https://eligibilitycenter.org/counselist) for a full list of your high school's approved core courses. Complete 16 core courses in the following areas:

### DIVISION I

Complete 10 NCAA core courses, including seven in English, math or natural/physical science, before your seventh semester.

<b>ENGLISH</b>	<b>MATH</b> (Algebra I or higher)	<b>NATURAL/ PHYSICAL SCIENCE</b> (Including one year of lab, if offered)	<b>ADDITIONAL</b> (English, math or natural/physical science)	<b>SOCIAL SCIENCE</b>	<b>ADDITIONAL COURSES</b> (Any area listed to the left, foreign language or comparative religion/philosophy)
4 years	3 years	2 years	1 year	2 years	4 years

### DIVISION II

<b>ENGLISH</b>	<b>MATH</b> (Algebra I or higher)	<b>NATURAL/ PHYSICAL SCIENCE</b> (Including one year of lab, if offered)	<b>ADDITIONAL</b> (English, math or natural/physical science)	<b>SOCIAL SCIENCE</b>	<b>ADDITIONAL COURSES</b> (Any area listed to the left, foreign language or comparative religion/philosophy)
3 years	2 years	2 years	3 years	2 years	4 years

## GRADE-POINT AVERAGE

The NCAA Eligibility Center calculates your grade-point average (GPA) based on the grades you earn in NCAA-approved core courses.

- DI requires a minimum 2.3 GPA.
- DII requires a minimum 2.2 GPA.

## SLIDING SCALE

Divisions I and II use sliding scales to match test scores and GPAs to determine eligibility. The sliding scale balances your test score with your GPA. If you have a low test score, you need a higher GPA to be eligible. Find more information about sliding scales at [ncaa.org/student-athletes/future/test-scores](https://ncaa.org/student-athletes/future/test-scores).

## TEST SCORES

Take the ACT or SAT as many times as you want before you enroll full time in college, but remember to list the NCAA Eligibility Center (code **9999**) as a score recipient whenever you register to take a test. If you take a test more than once, send us all your scores and we will use the best scores from each test section to create your sum score. We accept official scores only from the ACT or SAT, and won't use scores shown on your high school transcript.



# HIGH SCHOOL TIMELINE

## GRADE 9

### Plan

- Start planning now! Take the right courses and earn the best grades you can.
- Ask your counselor for a list of your high school's NCAA core courses to make sure you take the right classes. Or, find your high school's list of NCAA core courses at [eligibilitycenter.org/courselist](http://eligibilitycenter.org/courselist).

## GRADE 10

### Register

- Register for a Certification Account or Profile Page with the NCAA Eligibility Center at [eligibilitycenter.org](http://eligibilitycenter.org).
- If you fall behind on courses, don't take shortcuts to catch up. Ask your counselor for help with finding approved courses or programs you can take.

## GRADE 11

### Study

- Check with your counselor to make sure you are on track to graduate on time.
- Take the ACT or SAT, and make sure we get your scores by using code **9999**.
- At the end of the year, ask your counselor to upload your official transcript.

## GRADE 12

### Graduate

- Take the ACT or SAT again, if necessary, and make sure we get your scores by using code **9999**.
- Request your final amateurism certification after April 1.
- After you graduate, ask your counselor to upload your final official transcript with proof of graduation.

### Core Courses

This simple formula will help you meet Divisions I and II core-course requirements.

$$4 \times 4 = 16$$

- + 4 English courses (one per year)
- + 4 math courses (one per year)
- + 4 science courses (one per year)
- + 4 social science courses (one per year)

**= 16 NCAA CORE COURSES**

### For more information:

[ncaa.org/playcollegesports](http://ncaa.org/playcollegesports)  
[eligibilitycenter.org](http://eligibilitycenter.org)

### Search Frequently Asked Questions

[ncaa.org/studentfaq](http://ncaa.org/studentfaq)

### Follow us:

 @NCAAEC

 @playcollegesports

# Test Scores

When a student registers for the SAT or ACT, he or she can use the NCAA Eligibility Center code of **9999** so his or her scores are sent directly to the NCAA Eligibility Center from the testing agency. Test scores on transcripts will **NOT** be used in his or her academic certification.

A combined SAT score is calculated by adding reading and math subscores. An ACT sum score is calculated by adding English, math, reading and science subscores. A student may take the SAT or ACT an unlimited number of times before he or she enrolls full time in college. If a student takes either test more than once, the best subscores from each test are used for the academic certification process.

If you took the SAT in March 2016 or after, and plan to attend an NCAA Division I college or university in the 2018-19 or 2019-20 academic years, use the following charts to understand the core-course GPA you need to meet NCAA Division I requirements.

For more information on the SAT, click [here](#) to visit the College Board's website.

DIVISION I FULL QUALIFIER SLIDING SCALE			
Core GPA	New SAT*	Old SAT (Prior to 3/2016)	ACT Sum
3.550	400	400	37
3.525	410	410	38
3.500	430	420	39
3.475	440	430	40
3.450	460	440	41
3.425	470	450	41
3.400	490	460	42
3.375	500	470	42
3.350	520	480	43
3.325	530	490	44
3.300	550	500	44
3.275	560	510	45
3.250	580	520	46
3.225	590	530	46
3.200	600	540	47
3.175	620	550	47
3.150	630	560	48
3.125	650	570	49
3.100	660	580	49
3.075	680	590	50
3.050	690	600	50
3.025	710	610	51
3.000	720	620	52
2.975	730	630	52
2.950	740	640	53
2.925	750	650	53
2.900	750	660	54
2.875	760	670	55
2.850	770	680	56
2.825	780	690	56
2.800	790	700	57
2.775	800	710	58

DIVISION I FULL QUALIFIER SLIDING SCALE			
Core GPA	New SAT*	Old SAT (Prior to 3/2016)	ACT Sum
2.750	810	720	59
2.725	820	730	60
2.700	830	740	61
2.675	840	750	61
2.650	850	760	62
2.625	860	770	63
2.600	860	780	64
2.575	870	790	65
2.550	880	800	66
2.525	890	810	67
2.500	900	820	68
2.475	910	830	69
2.450	920	840	70
2.425	930	850	70
2.400	940	860	71
2.375	950	870	72
2.350	960	880	73
2.325	970	890	74
2.300	980	900	75
2.299	990	910	76
2.275	990	910	76
2.250	1000	920	77
2.225	1010	930	78
2.200	1020	940	79
2.175	1030	950	80
2.150	1040	960	81
2.125	1050	970	82
2.100	1060	980	83
2.075	1070	990	84
2.050	1080	1000	85
2.025	1090	1010	86
2.000	1100	1020	86

ACADEMIC REDSHIRT

\*Final concordance research between the new SAT and ACT is ongoing.

# Test Scores

If you took the SAT in March 2016 or after, and plan to attend an NCAA Division II college or university in the 2018-19 or 2019-20 academic years, use the following charts to understand the core-course GPA you need to meet NCAA Division II requirements.

A combined SAT score is calculated by adding reading and math subscores. An ACT sum score is calculated by adding English, math, reading and science subscores. You may take the SAT or ACT an unlimited number of times before you enroll full time in college. If you take either test more than once, the best subscores from each test are used for the academic certification process.

For more information on the SAT, click [here](#) to visit the College Board's website.

DIVISION II FULL QUALIFIER SLIDING SCALE			
USE FOR DIVISION II BEGINNING AUGUST 2018			
Core GPA	New SAT*	Old SAT (Prior to 3/2016)	ACT Sum
3.300 & above	400	400	37
3.275	410	410	38
3.250	430	420	39
3.225	440	430	40
3.200	460	440	41
3.175	470	450	41
3.150	490	460	42
3.125	500	470	42
3.100	520	480	43
3.075	530	490	44
3.050	550	500	44
3.025	560	510	45
3.000	580	520	46
2.975	590	530	46
2.950	600	540	47
2.925	620	550	47
2.900	630	560	48
2.875	650	570	49
2.850	660	580	49
2.825	680	590	50
2.800	690	600	50
2.775	710	610	51
2.750	720	620	52
2.725	730	630	52
2.700	740	640	53
2.675	750	650	53
2.650	750	660	54
2.625	760	670	55
2.600	770	680	56
2.575	780	690	56
2.550	790	700	57
2.525	800	710	58
2.500	810	720	59
2.475	820	730	60
2.450	830	740	61
2.425	840	750	61
2.400	850	760	62
2.375	860	770	63
2.350	860	780	64
2.325	870	790	65
2.300	880	800	66
2.275	890	810	67
2.250	900	820	68
2.225	910	830	69
2.200	920	840 & above	70 & above

DIVISION II PARTIAL QUALIFIER SLIDING SCALE			
USE FOR DIVISION II BEGINNING AUGUST 2018			
Core GPA	New SAT*	Old SAT (Prior to 3/2016)	ACT Sum
3.050 & above	400	400	37
3.025	410	410	38
3.000	430	420	39
2.975	440	430	40
2.950	460	440	41
2.925	470	450	41
2.900	490	460	42
2.875	500	470	42
2.850	520	480	43
2.825	530	490	44
2.800	550	500	44
2.775	560	510	45
2.750	580	520	46
2.725	590	530	46
2.700	600	540	47
2.675	620	550	47
2.650	630	560	48
2.625	650	570	49
2.600	660	580	49
2.575	680	590	50
2.550	690	600	50
2.525	710	610	51
2.500	720	620	52
2.475	730	630	52
2.450	740	640	53
2.425	750	650	53
2.400	750	660	54
2.375	760	670	55
2.350	770	680	56
2.325	780	690	56
2.300	790	700	57
2.275	800	710	58
2.250	810	720	59
2.225	820	730	60
2.200	830	740	61
2.175	840	750	61
2.150	850	760	62
2.125	860	770	63
2.100	860	780	64
2.075	870	790	65
2.050	880	800	66
2.025	890	810	67
2.000	900	820 & above	68 & above

\*Final concordance research between the new SAT and ACT is ongoing.

NCAA is a trademark of the National Collegiate Athletic Association.

# AGRICULTURE EDUCATION

Agriculture is our nation's largest employer and Lancaster County's largest industry. Its future depends on having the best and brightest young people become leaders in science, production, international marketing, genetics, engineering, food science, computers, horticulture, food science, biotechnology, tissue culture, veterinary science, and much more. There are more than 200 rewarding and challenging agriculture careers promising jobs that offer opportunity for financial gain as well as personal growth and satisfaction.

Students enrolled in agriculture courses have the opportunity to join the FFA as an extracurricular activity. Through the FFA, students learn by doing, develop leadership skills, experience personal growth, and explore career goals. Possible accomplishments are only limited by the energy that is put into the program. Students in FFA have the opportunity to compete in various contests at the local, state, and national levels and to travel and meet new people.

All students will be required to have safety glasses for shop classes. All agriculture education courses are considered electives. **Agriculture Education classes are taught at Ephrata Area High School.**

## Ag Courses

Grades 9-12
Honors Animal Science
Supervised Agriculture Experience (SAE)
Grades 10 - 12
Honors Wildlife and Natural Resources
Biotechnology (1/2 year)
Introduction to Ag Mechanics
Grade 12
Ag Co-Op

## **Honors Animal Science 473**

Grade Level: 9, 10, 11, 12

Credits: 1 Credit

This is a science course for students who enjoy learning about and working with animals, both pets and livestock. Students receiving a B or higher in the course are eligible to receive 3 transfer credits at either Harcum College or Delaware Valley University. In the course, students are introduced to basic biology concepts as they apply to domestic animals. The class will work with livestock animals to study reproduction, growth and nutrition. Dissections of livestock specimen will also be included as available to study anatomy. Students will learn some of the challenges of veterinary medicine as they explore topics like animal health and disease. A unit of ecology will also be included. Field trips and guest speakers will be incorporated throughout the course to highlight career possibilities. Students are expected to keep a formal lab book and learn about current events in the animal sciences through journal reports. Leadership development and public speaking skills are taught to increase self-confidence and sharpen communication skills needed for success in a competitive society. FFA membership is open to any student in the class and participation is strongly encouraged. This course counts as an EHS science credit; however it is NOT an NCAA approved science course.

## **Biotechnology 4516**

Grade Level: 9, 10, 11, 12

Credits: 1 Credit

*Prerequisite: Teacher approval*

This course is designed to allow Agricultural students the opportunity to work independently on agricultural related projects outside of class time for academic credit and/or be enrolled in an Agriculture course to retain FFA membership. A minimum of 120 hours is required to meet the basic time requirement and FFA record books will be kept for the SAE project. Projects may include but are not limited to Animal Crew, research, home improvement, employment, or livestock projects. A student may be enrolled in this course for up to four years. Because this course does not meet during the regular school day, students are required to meet with the instructor after school at least once a month. In addition to submitting record books each quarter, students will also complete mini projects each marking period.

## **Supervised Agriculture Experience (SAE) 4618**

Grade Level: 9, 10, 11, 12

Credits: 1 Credit

*Prerequisite: Teacher approval*

This course is designed to allow Agricultural students the opportunity to work independently on agricultural related projects outside of class time for academic credit and/or be enrolled in an Agriculture course to retain FFA membership. A minimum of 120 hours is required to meet the basic time requirement and FFA record books will be kept for the SAE project. Projects may include but are not limited to Animal Crew, research, home improvement, employment, or livestock projects. A student may be enrolled in this course for up to four years. Because this course does not meet during the regular school day, students are required to meet with the instructor after school at least once a month. In addition to submitting record books each quarter, students will also complete mini projects each marking period.



## **Introduction to Ag Mechanics 4520**

Grade Level: 10, 11, 12

Credits: 1 Credit

This introductory mechanics course provides students with a basic overview of safety, repair, maintenance, and construction involving woodworking, small gas engines, electricity and welding. The course will balance classroom instruction with hands-on application of theories and concepts. Students will use hand tools and power machinery to complete both required and individual projects. Emphasis will be on developing a broad base of skills for the industry. Students are required to keep a course portfolio. FFA membership is open to any student in the class and participation is strongly encouraged.

## **Honors Wildlife & Natural Resources 4526**

Grade Level: 10, 11, 12

Credits: 1 Credit

Students receiving a “B” or higher in this course are eligible to receive 3 transfer credits at Delaware Valley University. This is a science course for students who enjoy spending time outdoors, exploring Pennsylvania’s wildlife. Lessons will reinforce basic biology and environmental science concepts as they relate to native birds, fish, mammals, and reptiles. Students will focus on different Pennsylvania habitats including cities, forests, fields, wetlands, rivers as well as the species of animals and plants found there. In addition to learning new species however, they will explore the complex relationships between species and their environments. Habitat conservation and best management practices will be highlighted and large projects will also allow students to study and apply key concepts outside of the classroom. A field trip to Middle Creek Wildlife Management Area and guest speakers will be incorporated throughout the course to highlight career possibilities as well. The course places an emphasis on field biology by studying the work of several naturalists and teaches students to make their own observations. FFA Membership is open to any student in the class and participation is strongly encouraged. This course counts as an EHS science credit, however it is NOT an NCAA approved science course.

## **Ag Co-Op 4635**

Grade Level: 12

Credits: 1 Credit

***Prerequisite: Completion of 2 agriculture courses and teacher approval***

Student will be dismissed to work at approved job sites. Approval must be granted prior to enrollment. This work experience program will demonstrate the importance of relating students’ academic and vocational skills to their ability to seek, obtain, and maintain a job. It consists of on-the-job training, which is provided by a local employer and is supervised by the agricultural instructor. Students are expected to keep FFA record books of hours worked, skills learned, and a work agreement signed by the employer, student, agriculture instructor, and parents.

# ART EDUCATION

## ART:

Course	Course #	Credits	AC	BIMM	EITS	HFS	HNRS
Introduction to Studio Art (2D)	480	1.0	√				
Advanced 2D Studio art	481	1.0	√				
Independent Study/Portfolio	482	1.0	√				
Foundations to Ceramics & 3D	483	1.0	√				
Contemporary Throwing and Hand Building	484	1.0	√				
Advanced Wheel Throw and Hand Build 3D	485	1.0	√				
Sculpting	486	1.0	√				
Independent Advanced Clay and 3D	487	1.0	√				
Art in Action	488	1.0	√				

## Introduction to Studio Art (2D) 480 \*\*\*

**Grade level:** 9,10,11,12

**Credits:** 1 Elective Credit

**Career Pathways:** *Arts and Communication*

**Periods per Cycle:** 6

**Length of Course:** 90 days

**Quality Points:** 4 (General)

*Students in the class will be responsible for paying a \$25 lab fee for their class materials.*

Students will be guided through experiences in drawing, painting, mixed media, and digital art. Projects are geared toward the beginning art student with an emphasis on developing creativity, technique and an understanding of composition. Students will have some opportunity to explore independent areas of interest as well.

## Advanced 2D Studio Art 481

**Grade level:** 9,10,11,12

**Credits:** 1 Elective Credit

**Career Pathways:** *Arts and Communication*

**Periods per Cycle:** 6

**Length of Course:** 90 days

**Quality Points:** 4 (General)

*Students in the class will be responsible for paying a \$25 lab fee for their class materials.*

*Prerequisite: Minimum of C in Introduction to 2D Studio Art or teacher recommendation*

Students will study from the following disciplines: drawing, painting, missed media and digital art. Students will select an area of concentration for independent study.

Drawing - is designed to give students the opportunity to work in a variety of different styles of drawing: scratchboard, charcoal, pen & ink, and pastels. Areas of study also include: cartooning, design, figure drawing, portraiture, still life, and wildlife drawing.

Painting - gives students the opportunity to work in a wide variety of subject matter and materials. Students may work in watercolor, acrylic, and oil paint.

Computer Art - is designed to give students the opportunity to work in a variety of digital media. Areas of study include: animation, web design, digital illustration, and digital art.



## Independent Study/Portfolio 482

**Grade level:** 10,11,12

**Credits:** 1 Elective Credit

**Career Pathways:** *Arts and Communication*

**Periods per Cycle:** 6

**Length of Course:** 90 days

**Quality Points:** 4 (General)

*Students in the class will be responsible for paying \$25 lab fee for their class materials.*

*Prerequisite: Minimum of C in previous Art course or teacher recommendation*

Students will develop skills and in depth understanding of specific areas of their own interests in 2D art or develop artwork for use in portfolio submission to art schools. Students will be aided in portfolio preparation and presentation.

## Foundations to Ceramics & 3D 483

**Grade level:** 9,10,11,12

**Credits:** 1 Elective Credit

**Career Pathways:** *Arts and Communication*

**Periods per Cycle:** 6

**Length of Course:** 90 days

**Quality Points:** 4 (General)

*Students in the class will be responsible for paying a \$25 lab fee for their class materials*

This course introduces pottery as an art form and explores the basics of forming and shaping clay. Taken at the beginning of a ceramics or sculpture program, this course introduces glazing, firing, designing and kiln loading. Students will have the opportunity to apply knowledge from math and science to a hands-on experience. Students will also receive an overview of the history of ceramics and acquire techniques in hand-building and some basic wheel throwing skills. Participation in the Art show and displaying work will be required. This program is the foundation for all future 3D and Ceramic Courses offered.

## Contemporary Throwing and Hand Building 484

**Grade level:** 10,11,12

**Credits:** 1 Elective Credit

**Career Pathways:** *Arts and Communication*

**Periods per Cycle:** 6

**Length of Course:** 90 days

**Quality Points:** 4 (General)

*Students in the class will be responsible for paying a \$25 lab fee for their class materials.*

This course teaches students the fundamental wheel-working and develops hand-building skills used for shaping clay. Students practice using the potter's wheel and begin throwing basic forms, such as bowls and mugs. They will learn how science impacts the form and aesthetics of a ceramic piece, as well as, how to incorporate decorations and embellishments. Participation in the Art show and displaying work will be required.

## Advanced Wheel Throwing and Hand Building 3D 485

**Grade level:** 10,11,12

**Credits:** 1 Elective Credit

**Career Pathways:** *Arts and Communication*

**Periods per Cycle:** 6

**Length of Course:** 90 days

**Quality Points:** 4 (General)

***Students in the class will be responsible for paying a \$25 lab fee for their class materials.***

***Prerequisite: Minimum of C in Contemporary Throwing and Hand Building 3D***

Students continue their exploration of ceramic art by practicing in advanced hand-building, and advanced wheel throwing techniques, such as slab, coiling, inlay, and sgraffito. The design and creation of utilitarian pieces is emphasized; students learn balance and proportion, surface decoration techniques and new firing options. Students often have the liberty of making creative pieces, but also learn how to make 'functional art', such as vases, cups and bowls. Advanced aesthetic, how to determine work value, marketing, technical and conceptual problems are also covered. Participation in the Art show and displaying work will be required.

## Sculpting 486

**Grade level:** 9,10,11,12

**Credits:** 1 Elective Credit

**Career Pathways:** *Arts and Communication*

**Periods per Cycle:** 6

**Length of Course:** 90 days

**Quality Points:** 4 (General)

***Students in the class will be responsible for paying a \$25 lab fee for their class materials.***

***Prerequisite: Minimum of C in Contemporary Throwing and Hand Building 3D***

Students who take ceramics or pottery courses often take a sculpting class. Sculpting classes range in difficulty and may be taken in succession to provide progressive instruction in clay modeling, casting, subtracting, forming, constructing, and design. Students learn the origins of pottery sculpting and how the art has evolved. They also explore geometric, abstract and organic forms through readings, discussions, critiques and hands-on sculpting projects. Participation in the Art show and displaying work will be required.

## Independent Advanced Clay and 3D 487

**Grade level:** 10,11,12

**Credits:** 1 Elective Credit

**Career Pathways:** *Arts and Communication*

**Periods per Cycle:** 6

**Length of Course:** 90 days

**Quality Points:** 4 (General)

***Students in the class will be responsible for paying a \$25 lab fee for their class materials***

***Prerequisite: Minimum of B in Advanced Wheel Throwing and Hand-Building 3D and with teacher approval.***

Independent students must be self-motivated and quality conscience individuals. Students will work on developing technical skills (materials and processes appropriate to their concepts), aesthetic sensibilities (including the use of historic and contemporary references in ceramics and other arts, criticism, expression of personal concepts in works). This is intended to build on the basic information from prior hand building, throwing, vessel, and ceramic sculpture classes. Students will investigate choices in materials to express a personal direction or a personal voice. A research concept will be identified by the student for the semester's investigation. We will work closely together to define and refine the problem, identify personal content issues within the research, solve technical problems and grow through the process of research. Students are expected to display artwork and participate in the Art show.

## Art in Action 488

**Grade level:** 9,10,11,12

**Credits:** 1 Elective Credit

**Career Pathways:** *Arts and Communication*

**Periods per Cycle:** 6

**Length of Course:** 90 days

**Quality Points:** 4 (General)

***Students in the class will be responsible for paying a \$25 lab fee for their class materials***

This course will enhance your artistic skills. If you had an interest in art but never really knew what your “Artist Style” was, then this class is for you. This course introduces students to a variety of new arts. Learn new art forms and techniques each week. Some of the topics to be covered include but are not limited to, drawing, painting, batik, weaving, pottery, glass fusion, metalsmithing and so much more. This course will only be offered once a year. Participation in the Art show and displaying work will be required.

# BUSINESS

## Business:

Course	Course #	Credits	AC	BIMM	EITS	HFS	HNRS
AP Microeconomics	423	1.0		√	√		
Computer Programming	404	1.0		√	√		
Economics Through the Stock Market	405	1.0		√			
Accounting I	408	1.0		√			
Accounting II	409	1.0		√			
Accounting III	410	1.0		√			
Microsoft Office & Information Technologies	413	1.0		√			
Entrepreneurship & Management	420	1.0		√			
Cocalico Internship	427	1.0	√	√	√	√	√
Career Seminar	422	1.0	√	√	√	√	√
Marketing	426	1.0		√			

## AP Microeconomics 423

**Grade level:** 10,11,12

**Credits:** 1 Elective

**Career Pathways:** *Business/Information Management and Marketing, Engineering/Industrial and Technological Sciences*

**Periods per Cycle:** 6

**Length of Course:** 90 days

**Quality Points:** 6 (AP)

This college level course is designed to provide students with a thorough understanding of the principles of economics as they apply to individual decision-making units, including households and firms. Students will examine the theory of consumer behavior, the theory of the firm and the behavior of profit-maximizing firms under various market structures. They will evaluate the efficiency of the outcomes with respect to price, output, consumer surplus and producer surplus. Students will examine the behaviors of households and businesses in factor markets and learn how the determination of factor prices, wages, interest and rent influence the distribution of income in a market economy.

**Students enrolled in AP courses are expected to take the AP exam**

## Computer Programming 404

**Grade level:** 9,10,11,12

**Credits:** 1 Elective Credit

**Career Pathways:** *Business/Information Management and Marketing, Engineering/Industrial and Technology Sciences*

**Periods per Cycle:** 6

**Length of Course:** 90 days

**Quality Points:** 5 (College Prep)

This course will introduce students to the world of programming through the highly structured language of JAVA. JAVA is the beginning course for programming and problem-solving skills. The course topics include programming methodology, control statements, user-defined classes, user interfaces and arrays. Logical, orderly thinking patterns are emphasized. No prior programming experience is necessary. Students may need to spend additional time outside of the classroom on the computer to complete the programming assignments. This class is strongly encouraged for those students who wish to pursue careers in mathematics, science, technology and computer science.

## Economics Through the Stock Market 405

**Grade level:** 10,11,12

**Credits:** 1 Elective Credit

**Career Pathways:** *Business/Information Management and Marketing*

**Periods per Cycle:** 6

**Length of Course:** 90 days

**Quality Points:** 5 (College Prep)

This class takes students inside the U.S. economy and shows them why a gallon of gas or an iPhone costs what it does. The class will also demonstrate numerous investment opportunities and strategies so students can make their hard-earned money work for them. Students who like engaging activities and simulations will benefit from this class.

Students who take this course will participate in a statewide “on-line” stock market simulation. The simulation is a 10-week competition in which each team receives an imaginary \$100,000 and must invest the money in the stock market with a goal of making as much money as possible in ten weeks. Students will be taught lessons in investing such as buying on margin, short-selling, and investments in commodities.

Other economic lessons will be incorporated using the “Virtual Business” simulation. Student will manage their own “on-line” convenience store, and they will be required to make decisions concerning pricing, purchasing and advertising. Students start their own business from scratch and manage it from a single store to a chain of stores. Through these simulations, students will learn first-hand the components of economics. Economic standards are met in a way that will allow students to understand the role of the economy in everyday living.

## Accounting I 408

**Grade level:** 10,11,12

**Credits:** 1 Elective Credit

**Career Pathways:** *Business/Information Management and Marketing*

**Periods per Cycle:** 6

**Length of Course:** 90 days

**Quality Points:** 5 (College Prep)

Accounting I is an ideal course for any student who is seeking employment in the business field, or is planning to attend college as a business related major. Accounting is defined as: planning, recording, analyzing, and interpreting financial information. Through a variety of workbook, Excel, and automated accounting activities, students will gain an understanding of how to prepare and analyze important financial documents of a business. Knowledge of accounting can be applied to all areas of business such as marketing, management, human resources, finance and business information systems.

## Accounting II 409

**Grade level:** 10,11,12

**Credits:** 1 Elective Credit

**Career Pathways:** *Business/Information Management and Marketing*

**Periods per Cycle:** 6

**Length of Course:** 90 days

**Quality Points:** 5 (College Prep)

***Prerequisite:*** *Accounting I or permission of Instructor*

Accounting II continues with the concepts covered in Accounting I. Additionally, Accounting II incorporates Managerial Accounting concepts such as budget planning, performance reports, break even sales calculations and financial statement analysis. Cost Accounting is also emphasized in this course, with particular attention being paid to manufacturing costs and records.

The Automated accounting software will continue to be a part of the accounting curriculum, and Excel activities will be used to further study various accounting concepts.

## Accounting III 410

**Grade level:** 11,12

**Credits:** 1 Elective Credit

**Career Pathways:** *Business/Information Management and Marketing*

**Periods per Cycle:** 6

**Length of Course:** 90 days

**Quality Points:** 5 (College Prep)

**Prerequisite:** *Accounting II*

Accounting III focuses on decisions made internally within a business. Information generated by managerial accountants is used for making decisions such as: setting prices, determining the cost of manufacturing an item, granting credit to customers, managing inventory, leasing or buying equipment and projecting revenues and costs. This class will prepare students who are planning a career in accounting or those majoring in business in college. Computers are used on a daily basis.

## Microsoft Office & Information Technologies 413

**Grade level:** 9,10,11,12

**Credits:** 1 Elective Credit

**Career Pathways:** *Business/Information Management and Marketing*

**Periods per Cycle:** 6

**Length of Course:** 90 days

**Quality Points:** 5 (College Prep)

This class will train the students in the various Microsoft Office programs that are needed to become a Microsoft Office Specialist. Students will have the opportunity to develop and improve their competencies in word processing, spreadsheet, desktop publishing, video edition and presentation applications and will complete a series of real-world projects.

By using the Microsoft Office software skills taught in this class, students will complete business and financial documents, organize data and create and design marketing documents, databases and promotional presentations. These projects will increase the competency and productivity using Microsoft Office applications. The Microsoft Office Specialist skills taught will make any student a more qualified candidate when seeking job opportunities. Students will be learning Microsoft Office using the Windows Operating System. They will be able to create, modify, edit and present the following applications: Windows Movie Maker, Microsoft Word, Microsoft Excel, Microsoft Publisher and Microsoft PowerPoint.

## Entrepreneurship and Management 420

**Grade level:** 11,12

**Credits:** 1 Elective Credit

**Career Pathways:** *Business/Information Management and Marketing*

**Periods per Cycle:** 6

**Length of Course:** 90 days

**Quality Points:** 5 (College Prep)

In a world full of “self-made millionaires” it should come as no surprise that owning and managing a business is an interest of today’s students. Entrepreneurship and Management is a hands-on course that will teach students the skills needed to establish and manage a business. This course is designed to study the different forms of business entities, how to begin a business, and operate a business as an entrepreneur or manager.

This hands-on course teaches students about various aspects of business ownership including: pricing, merchandising, bookkeeping, advertising/promotions, inventory control, cost analysis and business planning. Students will apply what they learned from the classroom to real life business situations through simulations, projects, competitions and assignments using computer technology. The ultimate goal of this course, upon completion is for the students to realize whether or not owning and operating a business is a likely career choice for them.

## Cocalico Internship 427

**Grade level:** 12

**Credits:** 1 Elective Credit

**Career Pathways:** *All 5 areas*

**Periods per Cycle:** 6

**Length of Course:** 90 days

**Quality Points:** 5 (College Prep)

This course is a career exploration and training program for seniors that is established as a partnership between Cocalico High School, local business/industries and the students. The main focus of the program is to support students in identifying careers of interest in a hands-on approach to learning. In order to determine a grade for personal work experiences, students will be evaluated by the employer on a monthly basis, with a portion of the final grade being determined by the average of monthly evaluation scores.

## Career Seminar 422

**Grade level:** 10,11,12

**Credits:** 1 Elective Credit

**Career Pathways:** *All 5 areas*

**Periods per Cycle:** 6

**Length of Course:** 90 days

**Quality Points:** 4 (General)

This course is designed to help students begin to plan for their future. Students examine their individual aptitudes and interests to determine possible career paths. They will also research career path options and learn basic job preparation skills. Whether pursuing college or employment after high school, the units in this course will teach practical skills that can be used in all aspects of employment as well as in personal life.

## Marketing 426

**Grade level:** 10,11,12

**Credits:** 1 Elective Credit

**Career Pathways:** *Business/Information Management and Marketing*

**Periods per Cycle:** 6

**Length of Course:** 90 days

**Quality Points:** 5 (College Prep)

This class will teach students the fundamentals of marketing that help drive the United States economy and how U.S. companies do business in international markets. Knowledge of Microsoft Office (Word, Excel and PowerPoint) as well as iMovie will greatly benefit students in this class.

In the marketing segment of the course we will focus on why businesses spend billions of dollars each year on marketing their product to consumers. Student will be able to target an industry of their choice (*sports, entertainment, fashion or other*) to complete the required course projects. Team work and group activities will be a major part of this course.

The course will also have an **International Marketing** component where we will study the emerging global economy and how businesses market their products to other countries. Major topics include: Culture and Social Difference, Importing/Exporting and International Trade, International Investing, Currency Exchange Rates and Government/Legal influences on international trade.

# COMMUNICATION & LITERATURE

## English:

Course	Course #	Credits	AC	BIMM	EITS	HFS	HNRS
American Literature & Composition	003	1.0	√	√	√	√	√
English 10: Communication Arts	031	1.0	√	√	√	√	√
English 11: Communication Arts	032	1.0	√	√	√	√	√
English 12: Communication Arts	033	1.0	√	√	√	√	√
World Literature & Composition	014	1.0	√	√	√	√	√
British Literature & Composition	004	1.0	√	√	√	√	√
Critical Studies of Nonfiction	023	1.0	√	√	√	√	√
Thematic Interpretations of Literature and Media	024	1.0	√	√	√	√	√
AP Literature & Composition	008	1.0	√	√	√	√	√
AP Language & Composition	009	1.0	√	√	√	√	√
Language Acquisition	833	1.0	√	√	√	√	√
Literacy Enrichment	021	1.0	√	√	√	√	√
Speech/Creative Writing	052	1.0	√				
Journalism	022	1.0	√	√	√	√	√
Research Skills	025	1.0	√	√	√	√	√

## American Literature & Composition 003

**Grade level:** 10

**Credits:** 1 Communications and Literature Credit

**Career Pathways:** All 5 areas

**Periods per Cycle:** 6

**Length of Course:** 90 days

**Quality Points:** 5 (College Prep)

**\*Keystone Literature**

### *Prerequisites:*

*English 9 Communications CP (grade of B or better or teacher recommendation)*

*Or English 9 Communication Arts 030 (grade of A or teacher recommendation)*

This course will include activities in communications and literature. This course will require students to enhance their skills for in-depth analysis of a variety of texts. Students will be expected to read critically, examine the author's use of literary elements, and write developed literary analysis. Using text evidence and personal commentary, students will also be asked to write and discuss their observations of literature with complexity. Key assessments include literature-based essays and a literary analysis research paper. Literary material covered includes a survey of American authors from the Puritans and the Founding Fathers through the Romanticism, Realism and Modernism movements.

A broad variety of instructional techniques will be employed in the classroom, including collaborative and independent work, close reading and annotation, writing, speech, discussion, lecture, research, individual reflection and peer evaluations. This course includes activities in communications and literature designed to prepare students for the Literature Keystone Exam.



## English 10: Communication Arts 031

**Grade level:** 10

**Credits:** 1 Communications and Literature Credit

**Career Pathways:** *All 5 areas*

**Periods per Cycle:** 6

**Length of Course:** 90 days

**Quality Points:** 4 (General)

**\*Keystone Literature**

This course includes various activities in communication, composition, and literature in preparation for the Literature Keystone Exam. This course will require students to develop their skills for analysis of a variety of texts. Students will be expected to read critically, examine the author's use of literary elements, and write literary analysis. Using text evidence and personal commentary, students will also be asked to write and discuss their observations of literature through supported practice with these skills. The communications instruction will include literature-based writing.

A broad variety of instructional techniques will be employed in the classroom, including collaborative and independent work, close reading and annotation, writing, speech, discussion, lecture, individual reflection and peer evaluations. This course includes activities designed to support students in strengthening skills needed for independent analysis of literature in preparation for the Literature Keystone Exam and texts of increasing complexity.

## English 11: Communication Arts 032

**Grade level:** 11

**Credits:** 1 Communications and Literature Credit

**Career Pathways:** *All 5 areas*

**Periods per Cycle:** 6

**Length of Course:** 90 days

**Quality Points:** 4 (General)

This course will include activities in communications and literature. This course will support students with analysis of a variety of texts from diverse authors. The communications instruction will include grammar, composition, vocabulary building, speech and career exploration. Students will be expected to read critically, write for a variety of purposes and audiences, and discuss observations of text. This course includes a variety of literature, including novels, short stories, poetry, nonfiction, and science fiction.

A broad variety of instructional techniques will be employed in the classroom, including collaborative and independent work, close reading and annotation, writing, speech, discussion, lecture, research, individual reflection and peer evaluations. This course is designed to expand upon previous knowledge in reading, writing, speaking, and vocabulary and provide supported practice with these skills for practical application to careers after high school. The final grade for the course will be determined by averaging the marking period grades with a final exam.

## English 12: Communication Arts 033

**Grade level:** 12

**Credits:** 1 Communications and Literature Credit

**Career Pathways:** *All 5 areas*

**Periods per Cycle:** 6

**Length of Course:** 90 days

**Quality Points:** 4 (General)

This course will include activities in communications and literature. This course will support students in making practical applications with communication skills to support them in post-high school careers and endeavors. Through thematic studies and a variety of texts, students will respond to and apply lessons from these texts to real-life situations. Students will be expected to engage in reading and thinking critically, write for a variety of purposes and audiences, and discuss observations of text.

A broad variety of instructional techniques will be employed in the classroom, including extensive collaboration, independent work, writing, speech, discussion, research, individual reflection. This course is designed to expand upon previous knowledge in reading, writing, and speaking and provide supported practice with these skills for practical application to careers after high school.

## World Literature & Composition 014

**Grade level:** 10,11,12

**Credits:** 1 Communications and Literature Credit

**Career Pathways:** *All 5 areas*

**Periods per Cycle:** 6

**Length of Course:** 90 days

**Quality Points:** 5 (College Prep)

### *Prerequisites:*

*American Literature & Composition 002 (grade of B or better or teacher recommendation)*

*Or English 10 Communication Arts 031 (grade of A or teacher recommendation)*

This course will include activities in communications and literature. This course will require students to demonstrate in-depth analysis of a variety of texts from diverse authors. The communications instruction will include grammar, composition, vocabulary building, speech and college exploration. Students will be expected to read critically, write developed literary analysis, and discuss observations of literature with complexity. This course includes a variety of literature, including novels, short stories, poetry, nonfiction, Shakespeare, and mythology. Students will write for a variety of purposes and audiences, including a synthesis paper and editorial.

A broad variety of instructional techniques will be employed in the classroom, including collaborative and independent work, close reading and annotation, writing, speech, discussion, lecture, research, individual reflection and peer evaluations. This is a reading and writing intensive course designed to prepare students for post-secondary study.

A wide variety of instructional techniques are employed in the classroom including discussion, small group activities, co-operative learning, demonstration, library research and lecture. The final grade for the course will be determined by averaging the marking period grades with a final exam.

## British Literature & Composition 004

**Grade level:** 11,12

**Credits:** 1 Communications and Literature Credit

**Career Pathways:** *All 5 areas*

**Periods per Cycle:** 6

**Length of Course:** 90 days

**Quality Points:** 5 (College Prep)

*Prerequisites: American Literature & Composition 002 (grade of B or better or teacher recommendation)*

*Or English 10 Communication Arts 031 (grade of A or teacher recommendation)*

This course will include activities in communications and literature. This course will require students to refine their skills for in-depth analysis of a variety of texts. Students will be expected to read critically, examine and critique author's use of literary elements, and write developed literary analysis. Using text evidence and personal commentary, students will also be asked to write and discuss their observations of literature with complexity and professional language. Key assessments include literature-based essays and a literary analysis research paper. Literary material covered includes a survey of British authors from *Beowulf* and *The Canterbury Tales* through Shakespeare, the Age of Reason, the Romantics, and Victorians to some modern writers.

A broad variety of instructional techniques will be employed in the classroom including collaborative and independent work, close reading and annotation with a focus on poetry explication, writing, speech, discussion, lecture, research, individual reflection and peer evaluations. This is a reading and writing intensive course designed to prepare students for post-secondary study.

## Thematic Interpretations of Lit and Media 024

**Grade level:** 11,12

**Credits:** 1 Communications and Literature Credit

**Career Pathways:** All 5 areas

**Periods per Cycle:** 6

**Length of Course:** 90 days

**Quality Points:** 5 (College Prep)

***Prerequisites:*** American Literature & Composition 002 (grade of B or better or teacher recommendation) Or English 10 Communication Arts 031 (grade of A or teacher recommendation)

This course will include activities in communications and literature. Through careful examination of a variety of texts, including a film and theater component, students will be encouraged to refine their skills for in-depth analysis. The course focuses on the most common literary themes and how various authors and mediums approach these themes as they relate to the human condition. In this course, students will engage with and make connections among various texts, such as short stories, poetry, dramatic monologues, non-fiction texts, and films.

A broad variety of instructional techniques will be employed in the classroom including collaborative and independent work, close reading and annotation, writing, speech, discussion, lecture, research, individual reflection and peer evaluations. Students who enroll in this course will be required to perform in front of an audience. **This is a reading and writing intensive course designed to prepare students for post-secondary study.** The final grade for this course will be comprised of both marking period grades, as well as a culminating research portfolio and literary analysis.

## AP Literature & Composition 008

**Grade level:** 11,12

**Credits:** 1 Communications and Literature Credit

**Career Pathways:** All 5 areas

**Periods per Cycle:** 6

**Length of Course:** 90 days

**Quality Points:** 6 (AP)

***Prerequisites:*** A successfully written literary analysis paper and grade of A (or teacher override) in American Literature and Composition 003

This course prepares students for the Advanced Placement exam (in May) that may be counted for college credit. Through examination of poetry, fiction, drama and some non-fiction, students will become adept at analyzing literary works in terms of meaning, structure and style. This is a reading and writing intensive course designed to reflect the rigor of post-secondary study.

Students enrolling in this course should be prepared to write at least one essay a week, either as a timed, in-class response to literature or as an out-of-class assignment. Additionally, students will read several novels and shorter works, some of which will be assigned as summer reading. Participation in class discussions is an essential part of success in the course. This course will require students to refine their skills for in-depth analysis of a variety of texts with a high level of complexity. Students will be expected to read critically, examine and critique author's use of literary elements and analyze the impact on author's meaning. Using text evidence and personal commentary, students will also be asked to write and discuss their observations of literature with complexity as well as professional and sophisticated language.

**Students enrolled in AP courses are expected to take the AP exam**

## AP Language & Composition 009

**Grade level:** 11,12

**Credits:** 1 Communications and Literature Credit

**Career Pathways:** *All 5 areas*

**Periods per Cycle:** 6

**Length of Course:** 90 days

**Quality Points:** 6 (AP)

***Prerequisites:*** *A successfully written literary analysis paper and grade of A (or teacher override) in American Literature & Composition.*

This course prepares students for the Advanced Placement exam (in May) that may be counted for college credit. Students will read memoirs, essays, speeches, and other non-fiction works from various time periods as well as some fiction, poetry, and drama. They will also practice writing their own persuasive essays and memoirs. Students will examine the way authors use the tools of language to construct arguments, influence audiences, and create meaning. This is a reading and writing intensive course designed to reflect the rigor of post-secondary study.

Students enrolling in this course should be prepared to write at least one essay week, either as a timed, on-demand writing, or out-of-class assignment. Additionally, students will read a combination of full-length novels and nonfiction works and several shorter texts, some of which will be assigned as summer reading. Participation in class discussions is an essential part of success in the course.

**Students enrolled in AP courses are expected to take the AP exam**

## Language Acquisition 833

**Grade level:** 9,10,11,12

**Credits:** 1 Elective Credit

**Career Pathways:** *All 5 areas*

**Periods per Cycle:** 6

**Length of Course:** 90 days

**Quality Points:** 4 (General)

This course will focus on theme-based language acquisition skills. Instruction will concentrate on development of reading, writing, speaking, and listening skills at the appropriate proficiency level determined by each student's placement on the WIDA Access Placement Test. Multiple assessment methods are used to advance English Language Learners to higher levels of ESL instruction or to exit from the program. In addition, instruction will orientate students to cultural differences such as nonverbal communications skills, American idioms, and regional differences in dialect.

This course is based on students' needs. A range of assessment methods are directed towards assessing individual achievement in language acquisition.

## Literacy Enrichment 021

**Grade level:** 9

**Credits:** 1 Elective Credit

**Career Pathways:** *All 5 areas*

**Periods per Cycle:** 6

**Length of Course:** 90 days

**Quality Points:** 4 (General)

This course is designed for students who need further instruction in or continued support of reading strategies and their application. Students will enhance their skills for lifelong learning, specifically in reading content area materials. Students will be assigned to this course based on several criteria, including data accumulated from previous assessments. This course will be counted as an elective and will be taken in addition to the required number of English courses.

## Speech/Creative Writing 052

**Grade level:** 11,12

**Credits:** 1 Elective Credit

**Career Pathways:** *Arts and Communication*

**Periods per Cycle:** 6

**Length of Course:** 90 days

**Quality Points:** 4 (General)

### ***Prerequisites:***

***English 10 (grade of C or better) and English teacher recommendation***

This course will allow students to develop their speaking and writing skills while learning to appreciate the value or both. The speech portion of the course will include various forms of oral communication such as informative presentations, persuasive arguments, demonstrations and impromptu speeches. Student will also critique famous speeches. Every speech is required in order to pass the course.

The creative writing portion of the course will allow the students to explore their creative side when expressing their ideas through writing. They will also read and learn to appreciate numerous examples of creative writing. They will write stores, plays, poems, journals, and other forms of creative writing. All written assignments in the course are required and must be completed in order to pass the course. Vocabulary words relating to speech and creative writing will be given regularly.

## Journalism 022

**Grade level:** 11, 12

**Credits:** 1 Elective Credit

**Career Pathways:** *All 5 areas*

**Periods per Cycle:** 6

**Length of Course:** 90 days

**Quality Points:** 4 (General)

***Prerequisites:*** *English 10 (grade of C or better) and English teacher recommendation*

This course offers students an opportunity to become better consumers and creators of news and media while encouraging their civic engagement, awareness, and responsibility. In a newsroom-type setting, students will develop their media literacy skills by examining and analyzing information critically, in addition to writing and producing their own works of journalism and taking on active roles as editors, reporters, and photographers. Fundamentals taught include laws and ethics, interviewing, newsgathering, and the ways in which news, features, and editorials are composed, with particular attention paid to how the Internet has transformed the media landscape.

## Research Skills

**Grade level:** 11,12

**Credits:** 1 Elective Credit

**Career Pathways:** All 5 areas

**Periods per Cycle:** 6

**Length of Course:** 90 days

**Quality Points:** 4 (General)

This course will prepare students to research, evaluate, and document resources that are used in formal papers while developing ethical standards for using the work of others. Students will learn search strategies, identification of reliable information, copyright and plagiarism guidelines, analysis of a research article, APA citations, MLA citations, and Chicago-Style citations. This course is highly recommended to students who plan to attend college and will utilize various online instructional techniques: discussion boards, collaborative work, peer review, video instruction, and individual activities. The final grade will include the marking period grades and a written formal paper.

# FAMILY AND CONSUMER SCIENCES

## Family and Consumer Sciences:

Course	Course #	Credits	AC	BIMM	EITS	HFS	HNRS
Foods and Baking	596	1.0				√	
Sewing & Fashion Design	581	1.0				√	
Skills for Success	598	1.0				√	
Child Development	570	1.0				√	

## Foods and Baking 596

**Grade level:** 9,10,11,12

**Credits:** 1 Elective Credit

**Career Pathways:** *Human and Family Services*

**Periods per Cycle:** 6

**Length of Course:** 90 days

**Quality Points:** 4 (General)

*Students in the class will be responsible for paying a \$25 lab fee for their class materials*

This course is designed for students who are interested in understanding the principles of food preparation as well as the foundations for a healthy lifestyle through proper nutrition, food safety, and personal health & well-being. Topics include kitchen safety, equipment, recipe reading, cooking methods, food groups, global foods, ingredient functions, cake decorating, pastry art, and bread making.

## Sewing and Fashion Design 581

**Grade level:** 9,10,11,12

**Credits:** 1 Elective Credit

**Career Pathways:** *Human and Family Services*

**Periods per Cycle:** 6

**Length of Course:** 90 days

**Quality Points:** 4 (General)

*Students in the class will be responsible for paying a \$25 lab fee for their class materials*

This course is designed for students who are interested in developing basic sewing skills. Selecting fabrics, sewing equipment and various sewing techniques are taught. Students will have the opportunity to create fashions especially for themselves. Course work will include an understanding of measurement, pattern and fabric selection, pattern adjustments, sewing equipment care and maintenance, as well as hand and machine sewing techniques. Course work will include class work, group work, fabric notebook, various small projects, and a major construction project.

**Students will be expected to purchase fabric and supplies for the major project in addition to their lab fee**

## Skills for Success 598

**Grade level:** 9,10,11,12

**Credits:** 1 Elective Credit

**Career Pathways:** *Human and Family Services*

**Periods per Cycle:** 6

**Length of Course:** 90 days

**Quality Points:** 4 (General)

***Students in the class will be responsible for paying a \$25 lab fee for their class materials***

In this course, students develop essential life skills to help them transition into adult roles. They learn to make wise consumer choices, prepare nutritious meals, contribute effectively as part of a team, manage a household budget, care for children, make clothing repairs, run a household, and prepare for the workforce.

## Child Development 570

**Grade level:** 11,12

**Credits:** 1 Elective Credit

**Career Pathways:** *Human and Family Services*

**Periods per Cycle:** 6

**Length of Course:** 90 days

**Quality Points:** 4 (General)

Students will explore the theories, stages and characteristics of child development. Topics covered include parenting, prenatal development, child safety, lesson plan development for a preschool setting, and characteristics of each stage of development. Students will learn how to prepare lesson plans, observe children in a classroom setting and practice developing age appropriate educational activities for children of all ages and stages of life.



# LEARNING SUPPORT

Individualized services and programs are available to students who are determined to need specially designed instruction due to the following needs:

- Autism/Pervasive Development Disorder
- Deaf-Blindness
- Developmental Delay (Early Intervention)
- Emotional Disturbance
- Intellectual Disability
- Multiple Disabilities
- Other Health Impairments
- Orthopedic Impairment
- Specific Learning Disability
- Speech and Language Impairment
- Sensory Impairment – Vision Impairment/Hearing Impairment
- Traumatic Brain Injury

If you believe that your student may be in need of special education services, evaluation processes designed to assess the needs of the student and his/her eligibility are available. Concerns should be directed to the student's guidance counselor.

## Direct Instruction Classes

Students are scheduled to take direct instruction courses based on the goals and objects that are outlined in their Individual Education Plans. Classes in the curricular areas of reading, writing, mathematics, science, social studies, health, and personal choices/decision making are taught by Special Education teachers. Additional information pertaining to the skills taught in these courses is outlined below:

- **English-** The learning support department offers several levels of English courses. The skills taught in these courses include, but are not limited to: reading comprehension and analysis, reading fluency, decoding, exposure to and interaction with fiction and non-fiction text, and written expression in the areas of: focus, content, organization, style, and conventions. Students receive instruction, based on the needs outlined in their Individual Education Plans, which will support them to work toward their transition goals.
- **Mathematics-** The learning support department offers several levels of Mathematics courses. The skills taught in these courses include, but are not limited to: foundational math skills, money management, measurement, introductory pre-algebra skills, and basic geometry skills. Students receive instruction, based on the needs outlined in their Individual Education plans, which will support them to work toward their transition goals.
- **Science:** The purpose of this course is to provide students with a practical understanding of science in relationship to the world around them. Topics covered include, but are not limited to: weather, plants, animals, environments, and nutrition. This course will allow students to develop a better understanding of the world around them, the food chain, the similarities and differences between living and non-living things, food groups, nutrition, and the components of a healthy diet.
- **Social Studies:** The purpose of this course is to provide students with an understanding of geography, the United States, and their local community. During this course, students will learn about geography, will increase their familiarity with each state in the United States, and will understand their rights and the resources that are available to them in their community.
- **Health:** The purpose of this course is to provide students with the skills and knowledge they need to maintain a healthy lifestyle. Students will receive instruction on understanding the body systems and their functions, maintaining daily hygiene, and developing safe and healthy relationships.
- **Personal Choices/Decision Making:** The learning support department offers several courses which address the social, emotional, and behavioral needs of students with Individual Education Plans. These courses include instruction on: decision making, stress management, managing conflict, emotional regulation, time management, social thinking, coping strategies, and building positive relationships. Participation in these courses is determined based on the needs identified by the student's IEP team.

## **S.K.I.L.L.S. 879**

Self-Advocacy **K**nowledge **I**ndependence **L**earning **L**iving **S**uccess

**S.K.I.L.L.S.** is a work-based learning program that focuses on preparing students for the workforce. This work-based learning environment provides experiences that contribute to the career development and work readiness of students. This program also supplements experiences with school and community-based activities that reinforce the learning outside the classroom. Furthermore, this program provides students with opportunities to practice learned skills and implement them in real-life situations. By participating in real-life work activities such as paid and volunteer work crews (independent and group), competitive employment, independent work-study, internships, tours and job shadows, students hone their work skills and further their independence.

## **Transition Skills 884**

**Grade level:** 9, 10, 11, 12

**Credits:** 1 Elective Credit

**Periods per Cycle:** 6

**Length of Course:** 90 days

**Quality Points:** 4 (General)

This course provides students with strategies and instruction in a variety of areas, including: organization, time management, executive functioning, study strategies, self-advocacy, and learning styles. The purpose of this course is to provide students with direct instruction in these areas, so that they can generalize these skills to their other academic courses in order to improve both their academic and functional abilities.

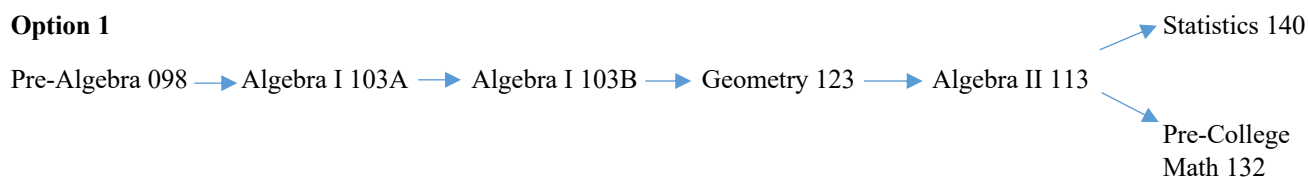
# MATHEMATICS

## Mathematics:

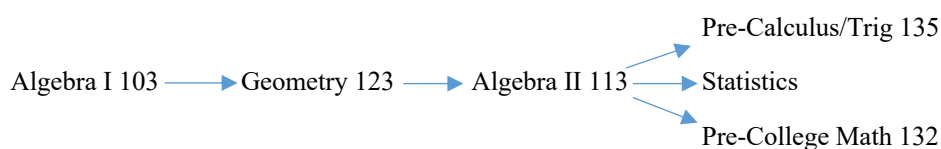
Course	Course #	Credits	AC	BIMM	EITS	HFS	HNRS
Pre-Algebra	098	1.0	√	√	√	√	√
Algebra I	103	1.0	√	√	√	√	√
Algebra I	103A	1.0	√	√	√	√	√
Algebra I	103B	1.0	√	√	√	√	√
Keystone Enrichment - Algebra	096	1.0	√	√	√	√	√
Algebra II	113	1.0	√	√	√	√	√
Honors Algebra II	114A	1.0	√	√	√	√	√
Geometry	123	1.0	√	√	√	√	√
Honors Geometry	124A	1.0	√	√	√	√	√
Pre-College Math	132	1.0	√	√	√	√	√
Precalculus/Trigonometry	135	1.0	√	√	√	√	√
Honors Precalculus/Trigonometry	135A	1.0	√	√	√	√	√
Statistics	140	1.0	√	√	√	√	√
AP Statistics	142	1.0	√	√	√	√	√
Applied Calculus	143	1.0	√	√	√	√	√
AP Calculus AB	144	1.0	√	√	√	√	√
AP Calculus BC	146	1.0	√	√	√	√	√
AP Computer Science A	147	1.0	√	√	√	√	√
Logic-Problem Solving	130	1.0	√	√	√	√	√

## Recommended Mathematics Tracks

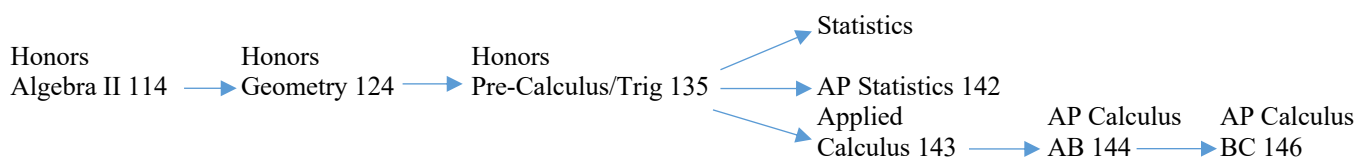
### Option 1



### Option 2



### Option 3



## Pre-Algebra 098

**Grade level:** 9,10

**Credits:** 1 Math Credit

**Career Pathways:** All 5 areas

**Periods per Cycle:** 6

**Length of Course:** 90 days

**Quality Points:** 4 (General)

*A written final exam is required for this course.*

Pre-Algebra is a beginning course in algebra. The course length allows for pacing that suits student abilities. Topics of study include signed numbers, exponents, solving equations, graphs and statistical applications of algebra.

## Algebra I 103

**Grade level:** 9,10

**Credits:** 1 Math Credit

**Career Pathways:** All 5 areas

**Periods per Cycle:** 6

**Length of Course:** 90 days

**Quality Points:** 5 (College Prep)

**\*Keystone Course**

*The Algebra I Keystone exam is taken at the end of this course.*

Algebra I 103 is a beginning course in algebra. Topics of study include solving and graphing linear equations/inequalities, absolute value equations/inequalities, and systems of linear equations/inequalities. The curriculum also includes factoring quadratics, probability and data analysis. Students who are not proficient on the Algebra I Keystone exam may be required to take the Keystone Enrichment course before retaking the exam.

**Students are encouraged to have their own TI-84 Plus CE, TI-84 Plus or TI-84 graphing calculator.**

## Algebra I 103A

**Grade level:** 9,10

**Credits:** 1 Math Credit

**Career Pathways:** All 5 areas

**Periods per Cycle:** 6

**Length of Course:** 90 days

**Quality Points:** 5 (College Prep)

*A written final exam is required for this course.*

Algebra I 103A is the first course in a two-semester course that prepares students for the Algebra I Keystone Exam at the completion of Algebra I 103B. Topics of study include solving linear equations and inequalities, graphing and writing linear functions, solving systems of linear equations and exponential functions and sequences.

**Students are encouraged to have their own TI-84 Plus CE, TI-84 Plus or TI-84 graphing calculator**

## Algebra I 103B

**Grade level:** 9,10,11

**Credits:** 1 Math Credit

**Career Pathways:** *All 5 areas*

**Periods per Cycle:** 6

**Length of Course:** 90 days

**Quality Points:** 5 (College Prep)

**\*Keystone Course**

***Prerequisite: Algebra I 103A***

***The Algebra Keystone exam is taken at the end of this course.***

Algebra I 103B is the second in a two-semester course that prepares students for Algebra I Keystone exam. Topics of study include exponential functions and sequences, polynomial equations and factoring, graphing and solving quadratic functions, radical functions and equations, probability and data analysis. The course will also review topics and prepare students to take the Algebra I Keystone Exam at the end of the semester. Students who do not score at least proficient after taking the Algebra I Keystone Exam may be required to complete the Keystone Enrichment course in order to retake the Algebra I Keystone Exam.

**Students are encouraged to have their own TI-84 Plus CE, TI-84 Plus or TI-84 graphing calculator**

## Keystone Enrichment – ALG 096

**Grade level:** 10,11

**Credits:** 1 Elective Credit

**Career Pathways:** *All 5 areas*

**Period per Cycle:** 6

**Length of Course:** 90 days

**Quality Points:** 4 (General)

***The Algebra I Keystone exam is retaken at the end of this course.***

This course is for a student who passed Algebra I but did not score proficient or advanced on the Algebra I Keystone. The course reviews topics and prepares students to retake the Algebra I Keystone at the end of the semester.

## Algebra II 113

**Grade level:** 10,11

**Credits:** 1 Math Credit

**Career Pathways:** *All 5 areas*

**Periods per Cycle:** 6

**Length of Course:** 90 days

**Quality Points:** 5 (College Prep)

***Prerequisite: Algebra I 103 or Algebra I 103A/Algebra I 103B and Geometry 123***

***A written final exam is required for this course.***

Algebra II is a continuation of Algebra I. Topics include an extensive study of quadratic functions and applications, powers, roots, radicals, polynomials and polynomial functions, applications of variations and mathematical modeling.

**Students are encouraged to have their own TI-84 Plus CE, TI-84 Plus or TI-84 graphing calculator.**

## Honors Algebra II 114A

**Grade level:** 9  
**Credits:** 1 Math Credit  
**Career Pathways:** All 5 areas

**Periods per Cycle:** 6  
**Length of Course:** 90 days  
**Quality Points:** 5 (College Prep)

***Prerequisite: Recommendation of math teacher  
A written final exam is required for this course.***

Honors Algebra II is a continuation of Algebra I from the middle school for students who scored proficient or advanced on the Algebra I Keystone exam. Topics include an extensive study of quadratic functions and applications, powers, roots, radicals, polynomials and polynomial functions, exponential and logarithmic functions, rational functions, and applications of variations and mathematic modeling.

**Students are encouraged to have their own TI-84 Plus CE, TI-84 Plus or TI-84 graphing calculator.**

## Geometry 123

**Grade level:** 10,11  
**Credits:** 1 Math Credit  
**Career Pathways:** All 5 areas

**Periods per Cycle:** 6  
**Length of Course:** 90 days  
**Quality Points:** 5 (College Prep)

***Prerequisite: Algebra I 103 or Algebra I 103A and Algebra I 103B  
A written final exam is required for this course.***

Students will use an informal guided discovery approach and work with a variety of geometric tools to discover geometric properties by experimentation and observation. Students will develop independent thinking skills and collaboration skills, while they investigate geometric definitions, create works of art and discover geometric relationships. Students will also be introduced to logic and geometric proofs.

## Honors Geometry 124A

**Grade level:** 9,10  
**Credits:** 1 Math Credit  
**Career Pathways:** All 5 areas

**Periods per Cycle:** 6  
**Length of Course:** 90 days  
**Quality Points:** 5 (College Prep)

***Prerequisite: Honors Algebra II 114 or teacher recommendation  
A written final exam is required for this course.***

Students will use an informal guided discovery approach and work with a variety of geometric tools to discover geometric properties by experimentation and observation. Students will develop independent thinking skills and collaboration skills, while they write geometric definitions, complete constructions, develop geometric proofs and discover geometric relationships. All topics will be covered in depth as students learn to establish geometric truths through the writing and development of proofs.

## Pre-College Math 132

**Grade level:** 11,12

**Credits:** 1 Math Credit

**Career Pathways:** All 5 areas

**Periods per Cycle:** 6

**Length of Course:** 90 days

**Quality Points:** 4 (General)

***Prerequisite: Geometry 123 and Algebra II 113***

***Several projects and written final exam are required in this class.***

A variety of essential mathematics topics needed for any student to be successful in higher education will be presented. The course consists of six units including probability, one-variable statistics, two-variable statistics, functions, sequences and series, and discrete math topics.

**Students are encouraged to have their own TI-84 Plus CE, TI-84 Plus or TI-84 graphing calculator.**

## Pre-calculus/Trigonometry 135

**Grade level:** 10, 11,12

**Credits:** 1 Math Credit

**Career Pathways:** All 5 areas

**Periods per Cycle:** 6

**Length of Course:** 90 days

**Quality Points:** 5 (College Prep)

***Prerequisite: Geometry 123 and Algebra II 113***

***Several projects and a written final exam are required in this class***

Pre-calculus topics including functions, exponentials, logarithms and trigonometry are included using both graphical and algebraic methods. This course is intended for students planning to take Applied Calculus.

**Students are encouraged to have their own TI-84 Plus CE, TI-84 Plus or TI-84 graphing calculator.**

## Honors Pre-calculus/Trigonometry 135A

**Grade level:** 10, 11,12

**Credits:** 1 Math Credit

**Career Pathways:** All 5 areas

**Periods per Cycle:** 6

**Length of Course:** 90 days

**Quality Points:** 5 (College Prep)

***Prerequisite: Honors Geometry 124 and Honors Algebra II 114***

***A written midterm and final exam will be required in this course.***

Pre-calculus topics including functions, exponentials, logarithms and trigonometry are included using both graphical and algebraic methods. This course is intended for students planning to take Applied Calculus and Advanced Placement Calculus.

***Students are encouraged to have their own TI-84 Plus CE, TI-84 Plus or TI-84 graphing calculator.***

## Statistics 140

**Grade level:** 11,12  
**Credits:** 1 Math Credit  
**Career Pathways:** All 5 areas

**Periods per Cycle:** 6  
**Length of Course:** 90 days  
**Quality Points:** 5 (College Prep)

***Prerequisite: Algebra II 113***  
***A written final exam is required for this course.***

This course is an opportunity for students to learn statistics at an in-depth perspective in preparation for college. Topics include descriptive statistics, probability, normal distributions confidence intervals, and hypothesis testing.

**Students are encouraged to have their own TI-84 Plus CE, TI-84 Plus or TI-84 graphing calculator.**

## AP Statistics 142

**Grade level:** 11,12  
**Credits:** 1 Math Credit  
**Career Pathways:** All 5 areas

**Periods per Cycle:** 6  
**Length of Course:** 90 days  
**Quality Points:** 6 (AP)

***Prerequisite:***  
***Students must have earned an A or B in Honors Algebra II 114 or an A in Algebra II 113.***

AP Statistics provides students with the opportunity to earn college credit for statistics upon earning a high score on the AP test. Topics include descriptive statistics, probability, normal distributions confidence intervals, and hypothesis testing. The complete curriculum is available as given in the College Board AP Statistics information. The students will also be required to do prep work for this class Students should consult with the instructor before enrolling in this course.

**Students are encouraged to have their own TI-84 Plus CE, TI-84 Plus or TI-84 graphing calculator.**

**Students enrolled in AP courses are expected to take the AP exam.**

## Applied Calculus 143

**Grade level:** 11,12  
**Credits:** 1 Math Credit  
**Career Pathways:** All 5 areas

**Periods per Cycle:** 6  
**Length of Course:** 90 days  
**Quality Points:** 5 (College Prep)

***Prerequisite: Precalculus 135 or Honors Precalculus 135A***  
***A written final exam is required in this course.***

Applied Calculus topics include polynomial, rational, radical, exponential, logarithmic and other functions. Also included will be the limits, derivatives and anti-derivatives of those functions and numerous applications to science, business, economics and life and social science.

**Students are encouraged to have their own TI-84 Plus CE, TI-84 Plus or TI-84 graphing calculator.**



## AP Calculus AB 144

**Grade level:** 11,12

**Credits:** 1 Math Credit

**Career Pathways:** *All 5 areas*

**Periods per Cycle:** 6

**Length of Course:** 90 days

**Quality Points:** 6 (AP)

***Prerequisite:***

***Honors Pre-calculus 135A, Applied Calculus 143 and/or teacher recommendation.***

Advanced Placement Calculus includes the theory and application of limits, derivatives, and integrals, including algebraic, trigonometric, and transcendental functions. All topics required for the AB Advanced Placement Calculus test are included. Students must have access to and know how to use a graphing calculator. Students should consult with the instructor before enrolling in this course.

**Students enrolled in AP courses are expected to take the AP exam.**

## AP Calculus BC 146

**Grade level:** 11,12

**Credits:** 1 Math Credit

**Career Pathways:** *All 5 areas*

**Periods per Cycle:** 6

**Length of Course:** 90 days

**Quality Points:** 6 (AP)

***Prerequisite: AP Calculus AB 144***

***Students must receive permission from the instructor prior to enrolling in this course.***

Advanced Placement Calculus BC includes the theory and applications of limits, derivatives, integrals, sequences and series, polar and parametric equations. All topics required for the BC Advanced Placement Calculus exam are included. Students must have access to and know how to use a graphing calculator. This course will require students to learn independently, using the instructor as a resource for difficult to understand topics.

**Students enrolled in AP courses are expected to take the AP exam.**

## AP Computer Science A 147

**Grade level:** 10,11,12

**Credits:** 1 Math Credit

**Career Pathways:** *All 5 areas*

**Periods per Cycle:** 6

**Length of Course:** 90 days

**Quality Points:** 6 (AP)

***Prerequisite: Computer Programming (grade of B or better)***

***Students must receive permission from the instructor prior to enrolling in this course.***

***A written final exam is required for this course.***

AP Computer Science A is a course that introduces students to computer science with fundamental topics that include problem solving, design strategies and methodologies, organization of data (data structures), approaches to processing data (algorithms), analysis of potential solutions, and the ethical and social implications of computing. The course emphasizes both object-oriented and imperative problem solving and design. These techniques represent proven approaches for developing solutions that can range from small, simple problems to large, complex problems.

**Students enrolled in AP courses are expected to take the AP exam.**

## Logic-Problem Solving 130

**Grade level:** 10,11,12

**Credits:** 1 Elective Credit

**Pathways:** All 5 areas

**Periods per Cycle:** 6

**Length of Course:** 90 days

**Quality Points:** 4 (General)

***Prerequisite: Geometry 123 or Geometry 124A***

***A written final exam is required for this course***

The purpose of this rigorous course is to help students develop both their problem-solving and logical-reasoning skills. Students will learn problem-solving techniques and strategies to solve problems of a wide range of difficulty. The logic portion of the course will incorporate examples from both outside and inside mathematics with a focus on the use of logic within mathematics. Students will be introduced to the basics of formal logic, providing symbolic methods for representing and assessing the logical form of arguments.

# MUSIC

## Music:

Course	Course #	Credits	AC	BIMM	EITS	HFS	HNRS
Music Production I	493	1.0	√				
Music Production II	494	1.0	√				
Music Theory	509	1.0	√				
Music Theory II	495	1.0	√				
Applied Music Performance I Guitar, Piano, Voice	539	1.0	√				
Applied Music Performance II Guitar, Piano, Voice	540	1.0	√				
Movie Music (Modern Music Media)	497	1.0	√				
Choir I	500	1.0	√				
Choir II	502	1.0	√				
Wind Ensemble I	507	1.0	√				
Wind Ensemble II	510	1.0	√				
Wind Ensemble I/Choir I	512	1.0	√				
Wind Ensemble II/Choir II	516	1.0	√				
Choralaires (Focus)	517	.5	√				
Symphonic Band (Focus)	518	.5	√				
Symphonic Band/Choralaires (Focus)	519	.5	√				

## Music Production I 493

**Grade level:** 9,10,11,12

**Credits:** 1 Elective Credit

**Career Pathways:** *Arts and Communication*

**Periods per Cycle:** 6

**Length of Course:** 90 days

**Quality Points:** 4 (General)

This class provides music students with instruction in the elements of music, recording, composing/arranging, and mixing. Hands-on learning takes place through the use of a computer, recording studio and MIDI keyboard lab. Students learn beginning recording and mixing techniques, study musical concepts, and apply that knowledge with lots of creative development time by composing original works in GarageBand and Logic Pro. The software offers a wide palette of loops and additional effects that help students create impressive musical products in a variety of styles and genres. Opportunities for recording voices and/or instruments are provided as well.

## Music Production II 494

**Grade level:** 10,11,12

**Credits:** 1 Elective Credit

**Career Pathways:** *Arts and Communication*

**Periods per Cycle:** 6

**Length of Course:** 90 days

**Quality Points:** 5 (College Prep)

**Prerequisite:** *Music Production I*

This course is designed as an extension of students' experiences in Music Production I and is designed to provide serious music students with advanced instruction in the elements of music, recording, composing, and mixing. Hands-on learning takes place through the use of a computer, recording studio, and MIDI keyboard lab. Students analyze professional mixes, investigate musical style concepts, and apply that knowledge with lots of creative development time by composing original works in GarageBand and Logic Pro. Opportunities for recording your voice and/or instrument are provided as well. Students develop their own album comprised of creative projects based on their own artistic interest and use their recording and mixing abilities to generate a professional product.

## Music Theory 509

**Grade level:** 9,10,11,12

**Credits:** 1 Elective Credit

**Career Pathways:** *Arts and Communication*

**Periods per Cycle:** 6

**Length of Course:** 90 days

**Quality Points:** 5 (College Prep)

*A project and final exam are required for this course*

This course explores beginning techniques of analyzing, composing, and interacting with music. Students will complete this course with a basic knowledge of writing a musical composition. The course emphasizes basic music theory concepts, composition, listening skills, music dictation, and music history. All students who are interested in advancing their general musical knowledge can benefit from this course.

## Music Theory II 495

**Grade level:** 10,11,12

**Credits:** 1 Elective Credit

**Career Pathways:** *Arts and Communication*

**Periods per Cycle:** 6

**Length of Course:** 90 days

**Quality Points:** 5 (College Prep)

*Prerequisite: Music Theory I (Grade of B or better)*

This course explores advanced techniques of analyzing, composing, and interacting with music. Students will be prepared to take the AP Music Theory exam upon completion of this course. The course emphasizes advanced music theory concepts, composition, listening skills, music dictation, sight-reading, and music history.

## Applied Music Performance I (Guitar, Piano, Voice) 539

**Grade level:** 9,10,11,12

**Credits:** 1 Elective Credit

**Career Pathways:** *Arts and Communication*

**Periods per Cycle:** 6

**Length of Course:** 90 days

**Quality Points:** 4 (General)

Want to learn to sing or play piano or guitar without the pressure of performing in front of an audience? This course is designed not only for students with no previous experience with their instrument of choice, but also for students with experience who are looking to improve their performing abilities. Students receive individual instruction on the instrument of their choice (guitar, piano or voice). Students get advice about the best techniques to improve their performance skills in different musical styles. Topics of study include music fundamentals, listening skills, posture/positioning, music selection in multiple styles, and performance critique. This course may be repeated for credit at a more advanced level. \*Include instrument choice on course selection form (guitar, piano or voice)

## **Applied Music Performance II (Guitar, Piano or Voice) 540**

**Grade level:** 10,11,12

**Credits:** 1 Elective Credit

**Career Pathways:** *Arts and Communication*

**Periods per Cycle:** 6

**Length of Course:** 90 days

**Quality Points:** 4 (General)

***Prerequisite: Applied Music Performance I (Grade of B or better)***

Want to learn to sing or play piano or guitar without the pressure of performing in front of an audience? This course is designed as an outgrowth of students' experiences in Applied Music Performance I and is designed to provide serious music students with advanced instruction. Students receive individual instruction on the instrument of their choice (guitar, piano, or voice). Students get advice about the best techniques to improve their performance skills in different musical styles. Topics of study include music fundamentals, listening skills, posture/positioning, music selection in multiple styles, and performance critique. This course may be repeated for credit with focus on another instrument or building advanced level skills in the original instrument of choice.

\*Include instrument choice on course selection form (guitar, piano or voice)

## **Movie Music (Modern Music Media) 497**

**Grade level:** 9,10,11,12

**Credits:** 1 Elective Credit

**Career Pathways:** *Arts and Communication*

**Periods per Cycle:** 6

**Length of Course:** 90 days

**Quality Points:** 4 (General)

Like movies? Like music? This course is recommended for all students interested in music, from hobbyists to future professionals and career-seekers. Students analyze and interpret (and enjoy!) music, sound, and visual elements found in films and other modern media. Past and current media are explored, as are individual student choices, such as *Star Wars*, the Marvel films, and much more. Students will have opportunities to develop soundtracks for visual media using GarageBand.

## **Choir I 500**

**Grade level:** 9,10

**Credits:** 1 Elective Credit

**Career Pathways:** *Arts and Communication*

**Periods per Cycle:** 6

**Length of Course:** 90 days

**Quality Points:** 4 (General)

Choir I is open to all students in grades 9 and 10 who have an interest in developing their vocal skills. In this class, students are introduced to choral repertoire from different time periods and in different languages. Students in choir develop vocal techniques and musicianship skills. They also learn to recognize and utilize terminology in choral music. Students interested in both band and choir should see the information in the "Wind Ensemble/Choir" courses.

**This course also includes some mandatory out-of-school performances**

## Choir II 502

**Grade level:** 11,12

**Credits:** 1 Elective Credit

**Career Pathways:** *Arts and Communication*

**Periods per Cycle:** 6

**Length of Course:** 90 days

**Quality Points:** 5 (College Prep)

Choir II is open to all students in grades 11 and 12 who have an interest in developing their vocal skills. In this class, students are introduced to choral repertoire from different time periods and in different languages. Students in choir develop vocal techniques and musicianship skills. They also learn to recognize and utilize terminology in choral music. Students interested in both band and choir should see the information in the “Wind Ensemble/Choir” courses.

**This course also includes some mandatory out-of-school performances**

## Wind Ensemble I 507

**Grade level:** 9,10

**Credits:** 1 Elective Credit

**Career Pathways:** *Arts and Communication*

**Periods per Cycle:** 6

**Length of Course:** 90 days

**Quality Points:** 4 (General)

***Prerequisite: Entrance by audition***

***Must also take Symphonic Band 518 or Symphonic Band/Choralaires 519 both semesters in the same school year.***

This course is designed for students in grades 9 and 10 who have been accepted via audition to Wind Ensemble. Students will work and rehearse music of various time periods and levels. Students will rehearse and perform basic music-reading skills through advanced musician techniques, including rhythm, note values, meter, key signatures, breathing techniques, and composer associated with each work.

**This course also includes some mandatory out of school performances**

## Wind Ensemble II 510

**Grade level:** 11,12

**Credits:** 1 Elective Credit

**Career Pathways:** *Arts and Communication*

**Periods per Cycle:** 6

**Length of Course:** 90 days

**Quality Points:** 5 (College Prep)

***Prerequisite: Entrance by audition***

***Must also take Symphonic Band 518 or Symphonic Band/Choralaires 519 both semesters in the same school year.***

This course is designed for students in grades 11 and 12 who have been accepted via audition to Wind Ensemble. Students will work and rehearse music of various time periods and levels. Students will rehearse and perform basic music-reading skills through advanced musician techniques, including rhythm, notes, note values, meter, key signatures, breathing techniques, and composers associated with each work.

**This course also includes some mandatory out of school performances**

## Wind Ensemble I/ Choir I 512

**Grade level:** 9,10

**Credits:** 1 Elective Credit

**Career Pathways:** *Arts and Communication*

**Periods per Cycle:** 6

**Length of Course:** 90 days

**Quality Points:** 4 (General)

***Prerequisite: Entrance by audition***

***Must also take Symphonic Band 518 or Symphonic Band/Chorales 519 both semesters in the same school year.***

This course is designed for students in grades 9 and 10 who perform in both band and choir. Please refer to the course descriptions for Wind Ensemble I and Choir I for more details. These courses meet at the same time and students will alternate class time between the two courses.

## Wind Ensemble II/ Choir II 516

**Grade level:** 11,12

**Credits:** 1 Elective Credit

**Career Pathways:** *Arts and Communication*

**Periods per Cycle:** 6

**Length of Course:** 90 days

**Quality Points:** 5 (College Prep)

***Prerequisite: Entrance by audition***

***Must also take Symphonic Band 518 or Symphonic Band/Chorales 519 both semesters in the same school year.***

This course is designed for students in grades 11 and 12 who perform in both band and choir. Please refer to the course descriptions for Wind Ensemble II and Choir II for more details. These courses meet at the same time, and students will alternate class time between the two courses.

## Chorales 517 (Focus)

**Grade level:** 9,10,11,12

**Credits:** .5 Elective Credit

**Career Pathways:** *Arts and Communication*

**Periods per Cycle:** 4

**Length of Course:** 180 days

**Quality Points:** 1 (Co-Curricular)

***Prerequisite: Entrance by audition***

Chorales is designed to provide advanced vocalists with a smaller vocal ensemble opportunity. Students will develop their vocal technique. Advanced musicianship skills will be developed through high level choral repertoire, vocal exercises and public performances. Choral repertoire will be chosen from a variety of historical time periods, including contemporary music. Different styles and languages are chosen to provide awareness of musical style and performance techniques. This course also includes several mandatory out-of-school performances.

**Participation in Choir I/II is highly recommended in the same school year**

## **Symphonic Band 518 (Focus)**

**Grade level:** 9,10,11,12

**Credits:** .5 Elective Credit

**Career Pathways:** *Arts and Communication*

**Periods per Cycle:** 4

**Length of Course:** 180 days

**Quality Points:** 1 (Co-Curricular)

***30-minute weekly instrumental sectionals are required***

This course is open to all students in grades 9-12 who have developed a high level of proficiency on a brass, woodwind, or percussion instrument. Course requirements include regular practice/demonstration of progress. The course also includes some mandatory out-of-school performances. Music will be rehearsed to develop the skills needed to excel on the student's selected instrument.

## **Symphonic Band/Choralaires 519 (Focus)**

**Grade level:** 9,10,11,12

**Credits:** .5 Elective Credit

**Career Pathways:** *Arts and Communication*

**Periods per Cycle:** 4

**Length of Course:** 180 days

**Quality Points:** 1 (Co-Curricular)

***Prerequisite: Entrance by audition***

***30-minute weekly instrumental sectionals are required***

This course is a combination of Choralaires and Symphonic Band. It is designed for students interested in both Symphonic Band and Choralaires. Please refer to the course description for each course. Students enrolled in this course will alternate rehearsals between Choralaires and Symphonic Band.

**Participation in Choir I/II is highly recommended in the same school year**



# PHYSICAL EDUCATION

## Physical Education:

Course	Course #	Credits	AC	BIMM	EITS	HFS	HNRS
Physical Education 10	606	.5	√	√	√	√	√
Health I	600	.5	√	√	√	√	√
Physical Education	607	.5	√	√	√	√	√
Health II	603	.5	√	√	√	√	√
Adapted Physical Education	816	.5	√	√	√	√	√

The Cocalico High School Physical Education program is designed to prepare our youth for a lifetime of health and physical fitness.

## Physical Education 10 606

**Grade level:** 10

**Credits:** 0.5 Credit

**Career Pathways:** *All 5 areas*

**Periods per Cycle:** 6

**Length of Course:** 45 days

**Quality Points:** 4 (General)

*Grades will be based on class preparation, physical fitness testing, and written & skill testing*

Physical education is designed to develop an individual's best physical capacities, improve social competencies and teamwork, teach appropriate emotional responses, and foster recreational skills with an emphasis on team activities, movement, and personal fitness. Students are taught the fundamentals and given opportunities to develop these skills through active co-educational participation.

**Students will take this course for 45 days; the other 45 days will be in Health I**

## Health I 600

**Grade level:** 10

**Credits:** 0.5 Credit

**Career Pathways:** *All 5 areas*

**Periods per Cycle:** 6

**Length of Course:** 45 days

**Quality Points:** 4 (General)

This course addresses emotional health, understanding stress, risks, coping with death, decision making, communication, self-value, teen mental wellness, driver's safety education, drug and alcohol addiction, human sexuality, sexually transmitted diseases, pregnancy, fitness and nutrition. Class assessments will include tests, group activities, a mandatory formal report, and a final exam.

**Students will take this course for 45 days; the other 45 days will be in Physical Education**

## Physical Education 11 607

**Grade level:** 11

**Credits:** 0.5 Credit

**Career Pathways:** *All 5 areas*

**Periods per Cycle:** 6

**Length of Course:** 45 days

**Quality Points:** 4 (General)

***Grades will be based on class preparation, class participation, physical fitness testing, written and skill testing***

Physical education is designed to develop an individual's best physical capacities, improve social competencies and teamwork, teach appropriate emotional responses, and foster recreational skills with an emphasis on lifetime activities, and personal fitness. Students are taught the fundamentals and given opportunities to develop these skills through active co-educational participation.

**Students will take this course for 45 days; the other 45 days will be in Health II**

## Health II 603

**Grade level:** 11

**Credits:** 0.5 Credit

**Career Pathways:** *All 5 areas*

**Periods per Cycle:** 6

**Length of Course:** 45 days

**Quality Points:** 4 (General)

This course addresses a holistic approach to wellness through understanding disease/illness prevention including information on diet and exercise, and how these areas are interrelated. Included in this course will be discussions and activities on topics such as sexually transmitted infections, first aid, community CPR, and diseases. Class assessments will include tests, group activities, CPR and first aid skills, as well as completion of a mandatory final project and a required three-day calorie journal.

**Students will take this course for 45 days; the other 45 days will be in Physical Education**

## Adapted Physical Education 816

**Grade level:** 9,10,11,12

**Credits:** 0.5 Credit

**Career Pathways:** *All 5 areas*

**Periods per Cycle:** 6

**Length of Course:** Need based

**Quality Points:** 4 (General)

This course is provided so that all students may participate in physical education. Any student with a disability limiting him/her from regular physical education classes will have modified instruction. Any adapted physical education program must be based on a physician's medical diagnosis and recommendations. Adapted physical education is composed of two specific categories: modified physical education and remedial physical education. Modified physical education is taking the well-known physical education activities and adapting them to specially restricted needs.

# SCIENCE

## SCIENCE:

Course	Course #	Credits	AC	BIMM	EITS	HFS	HNRS
Biology	204	1.0	√	√	√	√	√
Honors Biology	204A	1.0	√	√	√	√	√
Anatomy & Physiology	205	1.0	√	√	√	√	√
AP Biology	206	1.0	√	√	√	√	√
Chemistry	207	1.0	√	√	√	√	√
Chemistry in the Community	219	1.0	√	√	√	√	√
AP Chemistry	208	1.0	√	√	√	√	√
Physics	209	1.0	√	√	√	√	√
AP Physics	210	1.0	√	√	√	√	√
Environmental Science	214	1.0			√	√	√
Astronomy/Meteorology	215	1.0				√	√
Principles of Technology	217	1.0	√	√	√	√	√
Drones	220	1.0			√		
Introduction to Forensics	222	1.0			√	√	√

Advancements in science and technology have produced a rapidly changing world. Students must be well prepared in science, since it applies to their life experiences. The major goal of the science department is to help students understand the concepts which form the foundation of science in their everyday lives.

### General Science Department Requirements:

1. Students need to complete Principles of Science, Biology, a chemical science (Chemistry or Chemistry in the Community), and a physical science (Physics or Principles of Technology) before graduation. (CTC students are an exception to this policy due to scheduling constraints.)
2. All science students should expect to be required to take a written midterm and/or final exam.
3. Please note any special requirements that may be documented in specific course selections.

## Biology 204

**Grade level:** 10

**Credits:** 1 Science Credit

**Career Pathways:** *All 5 areas*

**Periods per Cycle:** 6

**Length of Course:** 90 days

**Quality Points:** 4 (General)

**\*Keystone Course**

### *Prerequisite: Principles of Science*

This course stresses the basis of knowledge within the biological sciences that every person should know. Concepts include molecular and cellular biology, genetics, evolution, taxonomy, and ecological relationships. Through lecture, class discussion, group work, problem solving, and library research, activities are presented in such a manner that students will develop a scientific perspective from which they can appraise future events in their lives.

## Honors Biology 204A

**Grade level:** 10

**Credits:** 1 Science Credit

**Career Pathways:** *All 5 areas*

**Periods per Cycle:** 6

**Length of Course:** 90 days

**Quality Points-5** (College Prep)

**\*Keystone Course**

***Prerequisites:*** *Recommendation from previous sciences teacher; a grade of B or better in English, Science, and Math courses in previous grade*

This course focuses on the needs of academically successful students who have a serious interest in science. Participating students should desire to meet the additional challenges of classroom work that emphasizes an in-depth look at biological concepts and applications as well as discussion and debate of current issues in science. This course stresses knowledge within the biological sciences. Concepts include molecular and cellular biology, genetics, evolution, taxonomy, and ecological relationships.. Through lecture, class discussions, group work, problem solving, and research, activities are presented in such a manner that students will develop a scientific perspective from which they can appraise future events in their lives.

## Anatomy and Physiology 205

**Grade level:** 11,12

**Credits:** 1 Elective Credit

**Career Pathways:** *All 5 areas*

**Periods per Cycle:** 6

**Length of Course:** 90 days

**Quality Points:** 5 (College Prep)

***Prerequisite:*** *Principles of Science, Biology, Chemistry (grade of C or better)*

The material covered will emphasize hands-on, active student participation (vertebrate dissection and laboratory activities) rather than rote memorization of terminology to acquire the understanding that the human body systems work together to produce a coordinated, smooth-working entity in health (homeostasis). *This course is an elective. Students are still required to take a course in Chemistry and Physics to meet graduation requirements.*

***Students in the class will be responsible for paying a \$40 lab fee for their class materials.***

## AP Biology 206

**Grade level:** 11,12

**Credits:** 1 Elective Credit

**Career Pathways:** *All 5 areas*

**Periods per Cycle:** 6

**Length of Course:** 90 days

**Quality Points:** 6 (AP)

***Prerequisite:*** *Principles of Science, Biology, Chemistry (grade of C or better)*

***The AP Biology course will place great emphasis on independent study and research. Students should consult with the instructor before enrolling in this course.***

AP Biology deals with life at the molecular and organismic level, and its structure, function, and interactions. It aims to provide students with the conceptual framework, factual knowledge, and analytical skills necessary to deal critically with the rapidly changing science of biology. Teaching methods include lecture, demonstrations, and inquiry-based investigations. This course is designed for students whose future may require a strong background in biology. Units will include the bio-chemical nature of life (molecules and cells), heredity and evolution, the diversity of organisms, the structure and function of major systems of plants and animals, and ecology. *This course is an elective. Students are still required to take a course in Physics or Principles of Technology to meet graduation requirements.*

**Students enrolled in AP courses are expected to take the AP exam**

## Chemistry 207

**Grade level:** 10,11,12

**Credits:** 1 Science Credit

**Career Pathways:** *All 5 areas*

**Periods per Cycle:** 6

**Length of Course:** 90 days

**Quality Points:** 5 (College Prep)

**Prerequisites:** *Principles of Science (grade of C or better), Algebra 103 (grade of C or better), Biology (grade of C or better)*

This course is designed to provide students with the science background lab skills, and a work ethic necessary to success in a higher education setting (four-year college, two-year program). This will be achieved through a balance of experimentation, observation, and various in-class problem-solving activities/discussions. Student attendance and daily participation are very beneficial for succeeding in this course.

## Chemistry in the Community 219

**Grade level:** 11,12

**Credits:** 1 Science Credit

**Career Pathways:** *All 5 areas*

**Periods per Cycle:** 6

**Length of Course:** 90 Days

**Quality Points:** 4 (General)

**Prerequisite:** *Principles of Science and Biology*

Chemistry in the Community (ChemCom) is a course in which the emphasis is placed on chemistry's impact on society. The most unique feature of ChemCom is that the chemistry is taught on a "need to know" basis, with societal and technological issues and problems determining the depth and breadth of the chemistry concepts taught. The goals of ChemCom are:

1. Assist students in realizing the importance of chemistry in their personal and professional lives
2. Instill in students an awareness of both the potential and limitations of science and technology.

The course is comprised of units that focus on chemistry-related issues that confront society. The topics presented serve as a foundation for conveying the chemistry necessary to properly analyze and understand these issues. In the analysis, the course incorporates a great number and variety of student-oriented activities including labs, projects and student lab reports.

## AP Chemistry 208

**Grade level:** 11,12

**Credits:** 1 Elective Credit

**Career Pathways:** *All 5 areas*

**Periods per Cycle:** 6

**Length of Course:** 90 days

**Quality Points:** 6 (AP)

**Prerequisites:** *Chemistry (grade of B or better) Algebra II (grade of B or better), Physics (grade of C or better). This course must be taken concurrently with an advanced math course.*

AP Chemistry will strive to equip students with a depth of understanding of fundamentals and a reasonable competence in dealing with mathematical concepts related to chemical problems. The course will contribute to the development of the student's abilities to think clearly and express their ideas, orally and in writing, with clarity and logic. The topics covered include atomic theory and atomic structure, chemical bonding, states of matter, solutions, reaction types, stoichiometry, equilibrium, kinetics, thermodynamics, analytical chemistry, and organic chemistry. Students should consult with the instructor before enrolling in this course.

**Students enrolled in AP courses are expected to take the AP exam**

## Physics 209

**Grade level:** 10,11,12

**Credits:** 1 Science Credit

**Career Pathways:** *All 5 areas*

**Periods per Cycle:** 6

**Length of Course:** 90 days

**Quality Points:** 5 (College Prep)

***Prerequisites:*** *Algebra II, Chemistry*

***Co-requisites:*** *Pre-Calculus or Calculus; Chemistry (with teacher approval)*

Physics is a study of the physical world, matter, and energy. Mathematical relationships are developed and discussed through a combination of demonstrations, lectures, laboratory experiences, and projects. The course is designed around an inquiry approach based on critical thinking in a lab setting. The course includes mechanics, wave analysis, and electricity.

## AP Physics 210

**Grade level:** 11,12

**Credits:** 1 Elective Credit

**Career Pathways:** *All 5 areas*

**Periods per Cycle:** 6

**Length of Course:** 90 days

**Quality Points:** 6 (AP)

***Prerequisite:*** *Physics (grade of B or better)*

***Corequisites:*** *Calculus (or Pre-Calculus, with instructor's permission)*

Physics is a study of the physical world, matter, and energy. Mathematical relationships are developed and discussed through a combination of demonstrations, lectures, laboratory experiences, and projects. The course includes an algebra-based approach to mechanics, wave analysis, electricity, and magnetism. Students enrolling in this course should be prepared to devote additional time to study outside of class.

**Students enrolled in AP courses are expected to take the AP exam.**

## Environmental Science 214

**Grade level:** 11,12

**Credits:** 1 Elective Credit

**Career Pathways:** *Engineering/Industrial and Technology Sciences, Health and Natural Resource Sciences, Human and Family Services*

**Periods per Cycle:** 6

**Length of Course:** 90 days

**Quality Points:** 4 (General)

***Prerequisite:*** *Principles of Science, Biology, Algebra I*

This course is designed to improve student awareness of the natural world and to add depth to their understanding of environmental problems.

Concepts include: ecosystems biochemical cycles, pollution, land use, population growth, energy, and environmental policies. Through discussions, laboratory and field activities, case studies and research, students will develop an increased level of appreciation for the environment and the skills necessary to address the environmental issues we are facing now and in the future.

## Astronomy/Meteorology 215

**Grade level:** 11,12

**Credits:** 1 Elective Credit

**Career Pathways:** *Health and Natural Resource Sciences, Human and Family Services*

**Periods per Cycle:** 6

**Length of Course:** 90 days

**Quality Points:** 4 (General)

Astronomy and Meteorology is an elective course offered for those students interested in receiving a more in-depth understanding of the world around them as it relates to weather and the universe. The Astronomy course will begin with an introduction to early Astronomy and progress through the thoughts and ideas which have led us to our current theories about the universe. The course aims to show the size and scope of the universe through a detailed exploration of how our earth interacts with the sun and the moon as well as earth's place in our solar system, galaxy, and ultimately the known universe.

The Meteorology course aims to explain how the atmosphere interacts with earth's surface to produce weather. In order to achieve this understanding, students will complete labs which require the manipulation of data related to fronts and air masses, as well as use real-life weather maps to record and analyze data. After gaining an understanding of air pressure and atmosphere/surface interactions, students will use their knowledge to predict weather.

## Principles of Technology 217

**Grade level:** 11,12

**Credits:** 1 Science Credit

**Career Pathways:** *All 5 areas*

**Periods per Cycle:** 6

**Length of Course:** 90 days

**Quality Points:** 4 (General)

***Prerequisite: Principles of Science and Biology***

This is an applied science course for vocational and technical students that builds a firm foundation for understanding technology both for today and tomorrow. This course will provide students with hands-on experience and the fundamental problem-solving skills that they will need to adapt to the changing work environments that they will face on the job. It applies science principles to technological situations and will concentrate on the use of science in the workplace. Principles of Technology presents an integrated package of competency-based text materials, hands-on laboratory activities, and mathematical skill labs. The course is based on thematic units that build on the knowledge learned in the previous units.

## Drones 220

**Grade level:** 10, 11,12

**Credits:** 1 Elective Credit

**Career Pathways:** *Engineering/Industrial and Technology Sciences*

**Periods per Cycle:** 6

**Length of Course:** 90 days

**Quality Points:** 4 (General)

With the rise of unmanned aerial vehicles (UAV) across industries, there is a need for educated and talented individuals to prepare for new careers in this area. This course combines physics, mechanics, and electronics. Students will learn about the technology and history of drones, as well as the legal, safety, and ethical issues associated with their use. Throughout the course, students will build their drone, participate in flight simulation and training, and finally fly the drone they built. Upon completion of the course, the student will have earned their PCS drone pilot certification.

## Introduction to Forensics 222

**Grade level:** 11,12

**Credits:** 1 Elective Credit

**Career Pathways:** *Engineering/Industrial and Technology Sciences, Health and Natural Resource Sciences, Human and Family Services*

**Periods per Cycle:** 6

**Length of Course:** 90 days

**Quality Points:** 4 (General)

**Prerequisite:** *Biology or Honors Biology*

Are you an ID Addict? (Investigation Discovery Channel) Do you enjoy CSI or Forensic Files? Are you a fan of the “Who dunnits?” This is a *realistic* look at forensic science. What it is and what it is not. The history of forensic science dates back to the 1700s with major advancements following trends in technology. The tools of science and the logic of scientific inquiry are fundamental to forensic investigation. This course is an introduction to the history and development of forensic science as well as to some basic techniques used in forensic investigation. In addition to analyzing evidence, writing detailed reports and providing testimony are key functions of a forensic scientist and will be incorporated into course assessment. Emphasis will be on communication as personal interviews, written reports and verbal testimony.



# SENIOR ELECTIVE OPTION

## Senior Elective Option:

Course	Course #	Credits	AC	BIMM	EITS	HFS	HNRS
Service Learning	925	.5	√	√	√	√	√
Financial Literacy	416	.5		√			
Physical Education 12	608	.5				√	
Life-long Personal Communication Skills	055	.5	√				
Online Course		.5	√	√	√	√	√

## Service Learning 925

**Grade level:** 12

**Credits:** 0.5 Credit

**Career Pathways:** *All 5 areas*

**Periods per Cycle:** 6

**Length of Course:** 45 days

**Quality Points:** 4 (General)

**Assessment based on journal entries and a mentor evaluation**

Service Learning offers students the opportunity to take active and meaningful roles in addressing the issues affecting their lives and their world. They will work closely with an assigned mentor either on or off-site. The Service Learning experience will provide students with the chance to explore and apply real-world skills, develop personal and social responsibility, encourage active citizenship, and reinforce the core civic values of honesty, respect, self-disciplines, healthy living, commitment to family and community and service to others.

## Financial Literacy 416

**Grade level:** 12

**Credits:** 0.5 Credit

**Career Pathways:** *Business Information Management and Marketing*

**Periods per Cycle:** 6

**Length of Course:** 45 days

**Quality Points:** 4 (General)

Financial Literacy is an elective course offered to seniors. Financial Literacy will expose students to financial responsibilities that they face as young adults. The material taught in this course will refresh and enhance what students learned in Personal Finance. Specific topics include: careers, paychecks and tax returns, checking and saving accounts, type of credit/mortgages, investment concepts, insurance and paying for college. This class will be “project-oriented” and there will be assignments online which will give students exposure to taking an online class. Seniors who are going to college, joining the military or entering the workforce will all use the content from this course.

## Physical Education 12 608

**Grade level:** 12

**Credits:** 0.5 Credit

**Career Pathways:** *Human and Family Services*

**Periods per Cycle:** 6

**Length of Course:** 45 days

**Quality Points:** 4 (General)

*Grades based on class preparation, class participation, physical fitness testing, written and skill testing*

Physical education is designed to develop the individual's best physical capacities, improve social competencies and team-work, teach appropriate emotional responses, foster recreational skills with an emphasis on lifetime activities, and personal fitness. Students are taught fundamentals and given opportunities to develop these through active co-educational participation.

## Life-long Personal Communication Skills 055

**Grade level:** 12

**Credits:** 0.5 Credit

**Career Pathways:** Arts and Communication

**Periods per Cycle:** 6

**Length of Course:** 45 days

**Quality Points:** 4 (General)

Seniors will be exposed to a variety of tools and strategies that will help them find success as they prepare to enter the next phase of their adult lives. Students will be taught basic technique to help build attention and focus, increase self-regulation, improve empathy, reduce levels of stress and anxiety and engage in more meaningful communication with others. Cultivating these skills will benefit all seniors whether going to college, joining the military or entering the workforce. Throughout the semester students will be engaged in journaling, analysis exercises, teaching opportunities and small and large group discussions. They will take the tools they learn in this course and apply them to their lives outside of the classroom. The course will culminate in a project aligned with the student's specific area of interest.

## Online Course

**Grade level:** 12

**Credits:** 0.5 Credit

**Career Pathways:** *All 5 areas*

**Periods per Cycle:** 6

**Length of Course:** 45 days

**Quality Points:** 4 (General)

There is a pre-approved listing of online courses from which to choose. Please see your guidance counselor for online course selections and descriptions.

# SOCIAL STUDIES/CITIZENSHIP

## SOCIAL STUDIES/CITIZENSHIP:

Course	Course #	Credits	AC	BIMM	EITS	HFS	HNRS
World Studies	703	1.0	√	√	√	√	√
Civics & Government	710	1.0	√	√	√	√	√
AP United States History	706	1.0	√	√	√	√	√
AP European History	730	1.0	√	√	√	√	√
AP United States Government and Politics	734	1.0	√	√	√	√	√
Psychology	720	1.0				√	√
Sociology	721	1.0				√	√
Military History	715	1.0				√	
Contemporary Issues	735	1.0	√			√	
Local Studies	729	1.0	√			√	

### World Studies 703

**Grade level:**10

**Credits:** 1 Social Studies Citizenship Credit

**Career Pathways:** *All 5 areas*

**Periods per Cycle:** 6

**Length of Course:** 90 days

**Quality Points:** 4 (General)

This course will focus on the economic political and social systems in world cultures. The non-western cultures of China, Japan, India, the Middle East and Africa will be emphasized. Each culture's history and current situation will be studied.

### Civics and Government 710

**Grade level:**11

**Credits:** 1 Social Studies Citizenship Credit

**Career Pathways:** *All 5 areas*

**Periods per Cycle:** 6

**Length of Course:** 90 days

**Quality Points:** 4 (General)

This course provides insights to all levels of the American political system. Having a sound comprehension of the governments that affect our daily lives is critical to civic participation. The course will explore the fundamentals of economics, commonwealth government, municipal government and national government. It will examine in detail the principles, processes, and institutions through which this political system functions as well as the public policies that these institutions implement. The course is concerned with the nature of the American political system, its development over the past two hundred years and how it continues to function in present-day America.

## AP United States History 706

**Grade level:** 10, 11, 12 \*offered in 2019-2020

**Credits:** 1 Elective Credit

**Career Pathways:** All 5 areas

**Periods per Cycle:** 6

**Length of Course:** 90 days

**Quality Points:** 6 (AP)

### *Prerequisites:*

*Only students receiving at least a 3.0 average for 9<sup>th</sup> and 10<sup>th</sup> grade social studies*

*It is strongly recommended that students have a strong reading and writing background*

Advanced Placement American History is a college level survey class designed for students with an interest in history and a desire to be challenged. Topics in American history from discovery to the present will be covered. The goal is to provide a college level course emphasizing reading, writing, research and class discussion. The course's intent is to prepare all students to take the Advanced Placement test in May. A college-level text and a variety of primary sources and supplementary materials will be used.

**Students enrolled in AP course are expected to take the AP exam**

## AP European History 730

**Grade level:** 11, 12 \*offered in 2020-2021

**Credits:** 1 Elective Credit

**Career Pathways:** All 5 areas

**Periods per Cycle:** 6

**Length of Course:** 90 days

**Quality Points:** 6 (AP)

### *Prerequisites:*

*Only students receiving at least a 3.0 average for 9<sup>th</sup> and 10<sup>th</sup> grade social studies*

*It is strongly recommended that students have a strong reading and writing background*

Advanced Placement European History is a college level survey course of western history, beginning with the Renaissance and Reformation and concluding in the present day. The focus will be on the cultural, economic, political and social developments that have had much influence on the world in which we live. The course is designed to mature a student's reading, writing and analytical skills by utilizing a wide variety of resources, including a college level textbook.

**Students enrolled in AP courses are expected to take the AP exam**

## AP United States Government and Politics 734

**Grade level:** 11, 12

**Credits:** 1 Social Studies Citizenship Credit or Elective Credit

**Career Pathways:** All 5 areas

**Periods per Cycle:** 6

**Length of Course:** 90 days

**Quality Points:** 6 (AP)

AP U.S. Government and Politics provides a college-level, nonpartisan introduction to key political concepts, ideas, institutions, policies, interactions, roles, and behaviors that characterize the constitutional system and political culture of the United States. Students study U.S. foundational documents, Supreme Court decisions, and other texts and visuals to gain an understanding of the relationships and interactions among political institutions, processes, and behavior. They also engage in disciplinary practices that require them to read and interpret data, make comparisons and applications, and develop evidence-based arguments. In addition, they complete a political science research or applied civics project.

## Psychology 720

**Grade level:** 11, 12

**Credits:** 1 Elective Credit

**Career Pathways:** *Health and Natural Resource Sciences and Human and Family Services*

**Periods per Cycle:** 6

**Length of Course:** 90 days

**Quality Points:** 5 (College Prep)

Psychology is the study of human behavior. Psychologists attempt to explain why people behave, feel and think as they do. This course would be valuable to anyone who plans to enter a “people” related field in the future. The course content will include: life stages, workings of the mind and body, learning processes, personality disorders and social interaction.

## Sociology 721

**Grade level:** 11, 12

**Credits:** 1 Elective Credit

**Career Pathways:** *Health and Natural Resource Sciences and Human and Family Services*

**Periods per Cycle:** 6

**Length of Course:** 90 days

**Quality Points:** 5 (College Prep)

This course focuses on all components of sociology, such as culture, society, social classes, groups, family, religion, and sociological theory. In addition, contemporary social issues such as race relations, the elderly, gender roles, and social changes will be examined.

## Military History 715

**Grade level:** 9, 10, 11, 12

**Credits:** 1 Elective Credit

**Career Pathways:** *Human and Family Services*

**Periods per Cycle:** 6

**Length of Course:** 90 days

**Quality Points:** 5 (College Prep)

War is a social construct that has had a major influence on history. From the Egyptians to Alexander the Great to the British empire, entire civilizations have been created or crushed by war. Students who wish to truly understand world history, and in particular the history of western civilization can learn about the military aspect of society and its impact on global events. The social, political and economic repercussions of conflict on past and present generations of global citizens will be examined in this course.

## Contemporary Issues 735

**Grade level:** 9, 10, 11, 12

**Credits:** 1 Elective Credit

**Career Pathways:** *Arts and Communication and Human and Family Services*

**Periods per Cycle:** 6

**Length of Course:** 90 days

**Quality Points:** 5 (College Prep)

This course will focus on examining and understanding important current issues and events in the US and world. Topics may include current and recent historical events related to social media, communication, pop culture, government and politics, the economy, world affairs, science and technology, the environment, race, gender and class. Students in the class will be using and developing skills for research, discussion, socratic seminar and debate.

## Local Studies 729

**Grade level:** 10, 11, 12

**Credits:** 1 Elective Credit

**Career Pathways:** *Arts and Communication*  
*and Human and Family Services*

**Periods per Cycle:** 6

**Length of Course:** 90 days

**Quality Points:** 5 (College Prep)

This course provides insights about the history of Lancaster County and Pennsylvania. The course will explore the different forms of material culture including and not limited to: tombstones, houses and churches, transportation, industry and power, agriculture and barns and food and entertainment. Examining in detail these categories of material culture over the period of history from 1700 to the present day will enhance the understanding and appreciation of our local heritage. The course is concerned with the nature of Lancaster County and Pennsylvania, its development over the past two hundred years and how it continues to evolve in today's rapidly changing world.

# **TECHNOLOGY EDUCATION**

## **Technology Education:**

Course	Course #	Credits	AC	BIMM	EITS	HFS	HNRS
Materials Technology I	551	1.0			√		
PLTW Digital Electronics	561	1.0			√		
PLTW Introduction to Engineering Design	534	1.0			√		
PLTW Principles of Engineering	562	1.0			√		
Digital Photography	548	1.0	√				
Digital Design and Print Media	552	1.0	√				
Energy, Power, & Transportation	523	1.0			√		
Construction Technology	524	1.0			√		
Computer Aided Design and Drafting	533	1.0			√		
Manufacturing	527	1.0			√		
Digital Film Making	550	1.0	√				
TV Production I	538	1.0	√				
TV Production II	541	1.0	√				
TV Production III	546	1.0	√				
TV Production IV	547	1.0	√				
Yearbook Production I	044	1.0	√				
Yearbook Production II	045	1.0	√				
Yearbook Production III	046	1.0	√				
Yearbook Production IV	047	1.0	√				
Exploring Technology	560	1.0	√				

## **Materials Technology I 551**

**Grade level:** 9, 10, 11, 12

**Credits:** 1 Elective Credit

**Career Pathways:** *Engineering/Industrial and Technological Sciences*

**Periods per Cycle:** 6

**Length of Course:** 90 days

**Quality Points:** 4 (General)

***Students in the class will be responsible for paying a \$25 lab fee for their class materials.***

***Students will be required to purchase approved safety glasses for this class which are available from the school.***

This hands-on course allows students to explore the use of machines and tools while working with materials including wood, metals and plastic. While working on a variety of unique activities, students will be exposed to the characteristics, and the processes used by industries to produce their products. Basic procedures utilizing equipment such as the CNC router, 3D printers, plasma cutter, welders and wood and metal working equipment. This course will provide students with a real-life experience.

## PLTW Digital Electronics 561

**Grade level:** 10, 11, 12

**Credits:** 1 Elective Credit

**Career Pathways:** *Engineering/Industrial and Technological Sciences*

**Periods per Cycle:** 6

**Length of Course:** 90 days

**Quality Points:** 5 (College Prep)

**Prerequisite:** *Algebra I*

*Students in the class will be responsible for paying a \$25 lab fee for their class materials.*

From smartphones to appliances, digital circuits are all around us. This course provides a foundation for students who are interested in electrical engineering, electronics, or circuit design. Students study topics such as combinational and sequential logic and are exposed to circuit design tools used in industry, including logic gates, integrated circuits, and programmable logic devices.

## PLTW Introduction to Engineering Design 534

**Grade level:** 10,11,12

**Credits:** 1 Elective Credit

**Career Pathways:** *Engineering/Industrial and Technological Sciences*

**Periods per Cycle:** 6

**Length of Course:** 90 days

**Quality Points:** 5 (College Prep)

Students dig deep into the engineering design process, applying math, science and engineering standards to hands-on projects. They work both individually and in teams to design solutions to a variety of problems using 3D modeling software and use an engineering notebook to document their work.

## PLTW Principles of Engineering 562

**Grade level:** 10,11,12

**Credits:** 1 Elective Credit

**Career Pathways:** *Engineering/Industrial and Technological Sciences*

**Periods per Cycle:** 6

**Length of Course:** 90 days

**Quality Points:** 5 (College Prep)

**Prerequisite:** *Introduction to Engineering Design*

Through problems that engage and challenge, students explore a broad range of engineering topics including mechanisms, the strength of structures and materials, and automation. Students develop skills in problem solving, research, and design while learning strategies for design process documentation, collaboration, and presentation.



## Digital Photography 548

**Grade level:** 9, 10, 11, 12

**Credits:** 1 Elective Credit

**Career Pathways:** *Arts and Communications*

**Periods per Cycle:** 6

**Length of Course:** 90 days

**Quality Points:** 4 (General)

***This is a recommended course for Grade 9***

***Students in the class will be responsible for paying a \$25 lab fee for their class materials.***

This course will introduce the student to the world of digital photography. It will provide the student with an in-depth understanding of the operation of digital cameras as well as the storage, retrieval and printing of digital images. Topics of study will include hardware needed for digital photography, basic camera controls, lenses, filters, exposure basics, metering light, finishing and mounting, “special techniques” in printing, lighting and photographic composition. Students will be introduced to Adobe Photoshop and Lightroom, In-design, and other programs that lend themselves to various aspects of Digital Photography. Students will work on practical assignment and have the opportunity to have their best work submitted to the yearbook, school newspaper Cocalico school district digital signage and Cocalico TV Channel.

## Digital Design and Print Media 552

**Grade level:** 9, 10, 11, 12

**Credits:** 1 Elective Credit

**Career Pathways:** *Arts and Communications*

**Periods per Cycle:** 6

**Length of Course:** 90 days

**Quality Points:** 4 (General)

***This is a recommended course for Grade 9***

***Students in the class will be responsible for paying a \$25 lab fee for their class materials.***

Students in this course will develop design skills that can be utilized in all areas of communications including social media, web design, digital signage and print media. This is an activity-based class that will explore the above topics in a hands-on environment. The class will incorporate the use of digital cameras, vector imaging, graphic manipulation, offset and screen printing. This course is computer based with an emphasis on Adobe Photoshop, Lightroom, InDesign and Illustrator. Students will explore hands on activities in desktop publishing, electronic imaging, web design and print media.

## Energy, Power, & Transportation 523

**Grade level:** 9,10, 11, 12

**Credits:** 1 Elective Credit

**Career Pathways:** *Engineering/Industrial  
and Technological Sciences*

**Periods per Cycle:** 6

**Length of Course:** 90 days

**Quality Points:** 4 (General)

***This is a recommended course for grade 9***

***Students in the class will be responsible for paying a \$25 lab fee for their class materials.***

Students will explore applications of energy and power conversion device and systems, along with the transportation of goods and services. The class will gain an insight into various modes of transportation and the use of energy through the study of basic electricity, the single cylinder engine, magnetic levitation, wind turbine design and flight principles.

## Construction Technology 524

**Grade level:** 9, 10, 11, 12

**Credits:** 1 Elective Credit

**Career Pathways:** *Engineering/Industrial and Technological Sciences*

**Periods per Cycle:** 6

**Length of Course:** 90 days

**Quality Points:** 4 (General)

*A written final exam will be required for this course.*

Construction Technology will teach students about residential construction along with major structures. The class will form their own construction team and cover topics related to construction materials, tools and processes. Students will work on various projects such as scaled models, sample wall sections, electrical wiring, home maintenance and will combine forces in the completion of constructions projects.

## Computer Aided Design and Drafting 533

**Grade level:** 9, 10, 11, 12

**Credits:** 1 Elective Credit

**Career Pathways:** *Engineering/Industrial and Technological Sciences*

**Periods per Cycle:** 6

**Length of Course:** 90 days

**Quality Points:** 4 (General)

*This is a recommended course for grade 9*

This course will concentrate in the development of skills in drafting and design associated with mechanical and architectural concepts. The content will be introduced through activities using sketching and computer-aided drafting techniques including 3D modeling with final output to 3D printers. Course content will include higher-level math skills, engineering geometry, multi-view drawings, pictorial representation, and working drawings. This Design and drafting-related problem-solving activities will be included throughout the course. The second half of this course will focus on the principles associated with residential design and construction. Upon completion of the course, the students will have drawn portions of a residential house plan including floor plans, foundation plan, elevations, schedules, plot plan, and construction details. The use of both sketching and a computer-aided drafting program will be utilized throughout the course. The development of models will be used to explore many of the phases of construction.

## Manufacturing 527

**Grade level:** 9, 10, 11, 12

**Credits:** 1 Elective Credit

**Career Pathways:** *Engineering/Industrial and Technological Sciences*

**Periods per Cycle:** 6

**Length of Course:** 90 days

**Quality Points:** 4 (General)

*This is a recommended course for grade 9*

*Students in the class will be responsible for paying a \$25 lab fee for their class materials. Students will be required to purchase approved safety glasses for this class which are available from the school.*

This course will allow the student the opportunity to learn the basic techniques of material processing to transform raw materials into usable products in a manufacturing setting. Topics of study will include various types of welding, machining and material processing of wood, metals and plastics. This class will form a company to organize, design and produce a product to sell to the general public to create a profit. Students will utilize various technology education labs to design, produce and market their product. This will be a hands-on course with subject matter from various areas of technology education being introduced.

## Digital Film Making 550

**Grade level:** 9, 10, 11, 12

**Credits:** 1 Elective Credit

**Career Pathways:** *Arts and Communication*

**Periods per Cycle:** 6

**Length of Course:** 90 days

**Quality Points:** 4 (General)

*Students in the class will be responsible for paying a \$25 lab fee for their class materials. Due to the nature of this course, students will be expected to put in extra time on projects and activities after school.  
A project final exam is required for this course.*

This hands-on film production course will allow students the opportunity to explore the field of film production. **The course will be based on storytelling.** Students will work on various length projects that will culminate on their own short film. Students are required to work collaboratively to produce their short film. Throughout the course, students will learn about the art of storytelling, editing techniques, unique camera work, audio creation and layering and lighting for location. This class will also watch portions of classic films to critique and dissect. Unique camera work, audio creation and layering and lighting for location. This class will also watch portions of classic films to critique and dissect.

## TV Production I 538

**Grade level:** 9, 10, 11, 12

**Credits:** 1 Elective Credit

**Career Pathways:** *Arts and Communication*

**Periods per Cycle:** 6

**Length of Course:** 90 days

**Quality Points:** 4 (General)

*Students in the class will be responsible for paying a \$25 lab fee for their class materials. Due to the nature of this course, students will be expected to put in extra time on projects and activities after school.  
A project final exam is required for this course.*

This course will explore the electronic media of television production. Students will have the opportunity to learn and work with the digital equipment in the TV Studio. Topics of exploration include the video camera and its operation, microphones, lighting, sound, and editing. Students will edit their projects using digital editing suite with Final Cut Pro software. Student projects will have the opportunity to air on one of the CHS-TV production. Students in TVI will also have the opportunity to help produce a live CHS-TV show and learn the basics of the TV Studio control room.

## TV Production II 541

**Grade level:** 9, 10, 11, 12

**Credits:** 1 Elective Credit

**Career Pathways:** *Arts and Communication*

**Periods per Cycle:** 6

**Length of Course:** 90 days

**Quality Points:** 5 (College Prep)

**Prerequisites:** *TV Production I (Grade of B or better)*

*Students in the class will be responsible for a \$25 lab fee for their class materials. Due to the nature of this course, students will be expected to put in extra time on projects and activities after school.  
A project final exam is required for this course*

This second-level offering in TV Production will allow students the opportunity to explore advanced features of the TV Studio. Students in TV II will produce a CHS-TV news show. The content of this course will be geared towards on-location productions. This will include unique camera work, field work audio, directing for electronic news gathering, and lighting. Several computer applications, including Adobe Photoshop and Final Cut Pro, will be used in this class. Students will explore these programs in depth while producing packages for class productions.

## TV Production III 546

**Grade level:** 10, 11, 12

**Credits:** 1 Elective Credit

**Career Pathways:** *Arts and Communication*

**Periods per Cycle:** 6

**Length of Course:** 90 days

**Quality Points:** 5 (College Prep)

**Prerequisites:** *TV Production II (Grade of B or better)*

*Students in the class will be responsible for a \$25 lab fee for their class materials. Due to the nature of this course, students will be expected to put in extra time on projects and activities after school.*

*A project final exam is required for this course*

Students enrolled in this class will take a leadership role in assisting TV Production II class members with the production of the CHS-TV news show and the video news magazine, In Focus. Students will be able to design a contract in the “specialty” area they would like to learn more about in an in-depth fashion. All students in TV Production III will spend significant time learning the advanced features of final Cut Pro on the digital editing stations.

## TV Production IV 547

**Grade level:** 10, 11, 12

**Credits:** 1 Elective Credit

**Career Pathways:** *Arts and Communication*

**Periods per Cycle:** 6

**Length of Course:** 90 days

**Quality Points:** 5 (College Prep)

**Prerequisites:** *TV Production III (Grade of B or better)*

*Students in the class will be responsible for a \$25 lab fee for their class materials. Due to the nature of this course, students will be expected to put in extra time on projects and activities after school.*

*A project final exam is required for this course*

Students enrolled in this class will take a leadership role in assisting TV Production II class members with the production of the CHS-News Show and the video news magazine, In Focus. Students will be able to design a contract in the “specialty” area they would like to learn more about in an in-depth fashion. All students in TV Production IV will spend significant time learning the advanced features of Final Cut Pro on the digital editing stations.

## Yearbook Production I 044

**Grade level:** 9,10,11,12

**Credits:** 1 Elective Credit

**Career Pathways:** *Arts and Communication*

**Periods per Cycle:** 6

**Length of Course:** 90 days

**Quality Points:** 4 (General)

Students enrolled in Yearbook Production I will help produce the yearbook and an online yearbook through layout design, digital photography and writing. A variety of instructional techniques will be employed in the classroom including collaborative exercises, small group work, demonstration, reading, writing, speaking and peer evaluations.

## **Yearbook Production II 045**

**Grade level:** 9,10,11,12

**Credits:** 1 Elective Credit

**Career Pathways:** *Arts and Communication*

**Periods per Cycle:** 6

**Length of Course:** 90 days

**Quality Points:** 5 (College Prep)

***Prerequisite:*** *Yearbook Production I (Grade of B or better and instructor approval)*

A student enrolled in this elective course will take a leadership role on the yearbook staff, providing guidance and assistance for Yearbook I students. A variety of instructional techniques will be employed in the classroom including collaborative exercises, small group work, demonstration, reading, writing, speaking and teacher and peer evaluations.

## **Yearbook Production III 046**

**Grade level:** 10,11,12

**Credits:** 1 Elective Credit

**Career Pathways:** *Arts and Communication*

**Periods per Cycle:** 6

**Length of Course:** 90 days

**Quality Points:** 5 (College Prep)

***Prerequisite:*** *Yearbook Production II (Grade of B or better and instructor approval)*

A student enrolled in this elective course will take a leadership role on the yearbook staff, providing guidance and assistance for Yearbook Production I and II students. A variety of instructional techniques will be employed in the classroom including collaborative exercises, small group work, demonstration, reading, writing, speaking and teacher and peer evaluations.

## **Yearbook Production IV 047**

**Grade level:** 10,11,12

**Credits:** 1 Elective Credit

**Career Pathways:** *Arts and Communication*

**Periods per Cycle:** 6

**Length of Course:** 90 days

**Quality Points:** 5 (College Prep)

***Prerequisite:*** *Yearbook Production III (Grade of B or better and instructor approval)*

A student enrolled in this elective course will take a leadership role on the yearbook staff, providing guidance and assistance for Yearbook Production I, II and III students. A variety of instructional techniques will be employed in the classroom including collaborative exercises, small group work, demonstration, reading, writing, speaking and teacher and peer evaluations.

## **Exploring Technology 560**

**Grade level:** 9,10,11,12

**Credits:** 1 Elective Credit

**Career Pathways:** *Arts and Communication*

**Periods per Cycle:** 6

**Length of Course:** 90 days

**Quality Points:** 4 (General)

Exploring Technology is a course that allows students to explore the systems of technology education. The systems of communication, engineering, manufacturing and problem solving will be examined. The following is a list of topics that will be studied: visual communications, video production, wood working, manufacturing and problem solving. This will be a hands-on/activity based course.

# WORLD LANGUAGE

## World Language:

Course	Course #	Credits	AC	BIMM	EITS	HFS	HNRS
Spanish I	301	1.0	√	√	√	√	√
Spanish II	302	1.0	√	√	√	√	√
Spanish III	303	1.0	√	√	√	√	√
Spanish IV	304	1.0	√	√	√	√	√
Spanish for Careers	318	1.0	√	√	√	√	√
Hispanic Film and Culture	319	1.0	√	√	√	√	√
AP Spanish and Culture	316	1.0	√	√	√	√	√
German I	305	1.0	√	√	√	√	√
German II	306	1.0	√	√	√	√	√
German III	307	1.0	√	√	√	√	√
German IV	308	1.0	√	√	√	√	√
AP German and Culture	317	1.0	√	√	√	√	√

## Spanish I 301

**Grade level:** 9,10,11,12

**Credits:** 1 World Language Credit

**Career Pathways:** All 5 areas

**Periods per Cycle:** 6

**Length of Course:** 90 days

**Quality Points:** 5 (College Prep)

*A final written and oral exam is a requirement of this course.*

Spanish I will focus on development of the four basic skills of a language: listening, speaking, reading and writing. Students will be able to describe themselves and others in the Spanish language. Students are given insights into Hispanic culture to increase their awareness of cultural diversity and the various Hispanic customs that exist through Spain, Mexico and Latin America.

Completion of all levels is strongly recommended for students entering the field of health services, criminal justice, social service, education, business, law, tourism, media, military service and government.

## Spanish II 302

**Grade level:** 9,10,11,12

**Credits:** 1 Elective Credit

**Career Pathways:** All 5 areas

**Periods per Cycle:** 6

**Length of Course:** 90 days

**Quality Points:** 5 (College Prep)

**Prerequisite:** Spanish I

*A final written and oral exam is a requirement of this course.*

Spanish II continues to develop the four language skills and concentrates on oral proficiency and further grammar development. Students work in past tense and further enhance their understanding of Hispanic culture. Completion of all levels is strongly recommended for students entering the fields of health services, criminal justice, social service, education, business, law tourism, media, military service, and government.

## Spanish III 303

**Grade level:** 10,11,12

**Credits:** 1 Elective Credit

**Career Pathways:** All 5 areas

**Periods per Cycle:** 6

**Length of Course:** 90 days

**Quality Points:** 5 (College Prep)

***Prerequisite: Spanish II***

***A final written and oral exam is a requirement of this course.***

Spanish III further develops the four language skills. The course includes conversational activities and additional grammar, as well as an overview of Hispanic art, culture, and literature. Spanish will increasingly be used for instruction, and students are encouraged to respond in Spanish. Completion of all levels is strongly recommended for students entering the field of health services, criminal justice, social services, education, business, law, tourism, media, military service, and government.

## Spanish IV 304

**Grade level:** 11,12

**Credits:** 1 Elective Credit

**Career Pathways:** All 5 areas

**Periods per Cycle:** 6

**Length of Course:** 90 days

**Quality Points:** 5 (College Prep)

***Prerequisite: Spanish III***

***A final written and oral exam is a requirement of this course.***

Spanish IV refines and enhances the four language skills. Students' ability to understand and communicate in Spanish will be tested and challenged through daily instruction held almost exclusively in the Spanish language. The course focuses on conversational activities and includes additional grammar, as well as deeper examination of Hispanic art, culture, literature, and geography. Completion of all levels is strongly recommended for students entering the field of health services, criminal justice, social services, education, business, law, tourism, media, military service, and government.

## Spanish for Careers 318

**Grade level:** 11,12

**Credits:** 1 Elective Credit

**Career Pathways:** All 5 areas

**Periods per Cycle:** 6

**Length of Course:** 90 days

**Quality Points:** 5 (College Prep)

***Prerequisite: Completion of Spanish IV***

***(offered in the spring only)***

Spanish for Careers is designed to finely tune students' Spanish skills gained in Spanish I through Spanish IV with a focus on their desired career. This course will prepare students to get hired easily and to get promoted quickly after attaining employment in their desired career path (business, medical, criminal justice, education and construction, etc.). Students will focus on vocabulary and skills needed for their specific career of choice. Mock interviews, a brief internship and resume writing are just a few of the useful experiences included in this course specific career of choice. Mock interviews, job shadowing and resume writing are just a few of the useful experiences included in this course tailored to fit students' specific career goals.



## Hispanic Film and Culture 319

**Grade level:** 11,12

**Credits:** 1 Elective Credit

**Career Pathways:** All 5 areas

**Periods per Cycle:** 6

**Length of Course:** 90 days

**Quality Points:** 5 (College Prep)

***Prerequisite: Completion of Spanish IV  
(offered in the fall only)***

The Hispanic Film and Culture course is taught exclusively in Spanish requiring students to improve their proficiency across the three modes of communication. Students will learn about the history and culture of Spanish-speaking countries through film, short stories, news clips, art, and other forms of media. Students will watch films of the Spanish-speaking world set in North America, Latin America, and Spain in order to explore questions about globalization, immigration and exile, war and violence, women's roles in contemporary society, among other themes. Movies viewed in class will provide a context in history and culture as well as language. In preparation for watching the films, students will study the historical/cultural information that provides the backdrop of the settings of the films. Lessons will require higher-level thinking skills such as expressing opinions, analyzing, predicting, and comparing and contrasting in the target language. Students will continue to master more sophisticated vocabulary and grammatical concepts and improve oral, written, and reading proficiencies.

## AP Spanish Language & Culture 316

**Grade level:** 11,12

**Credits:** 1 Elective Credit

**Career Pathways:** All 5 areas

**Periods per Cycle:** 6

**Length of Course:** 90 days

**Quality Points:** 6 (AP)

***Prerequisite: Completion of Spanish IV and grade of A or B in Spanish IV (or teacher override)  
(offered in the spring only)***

The AP Spanish Language and Culture course is a rigorous course taught exclusively in Spanish that requires students to improve their proficiency across the three modes of communication. The course focuses on the integration of authentic resources including on-line print, audio, and audiovisual resources, as well as traditional print resources that include literature, essays, ad magazine and newspaper articles with the goal of providing a rich, diverse learning experience. Students communicate using rich, advanced vocabulary and linguistic structures as they build proficiency in all modes of communication toward the pre-advanced level. Students are expected to complete review work prior to the course and attend three review sessions in the spring semester to prepare for the AP exam. Students enrolling in this course should be prepared to devote additional time to study outside of class.

**Students enrolled in AP courses are expected to take the AP exam**



## German I 305

**Grade level:** 9,10,11,12

**Credits:** 1 World Language Credit

**Career Pathways:** *All 5 Areas*

**Periods per Cycle:** 6

**Length of Course:** 90 days

**Quality Points:** 5 (College Prep)

*A final written and oral exam is a requirement of this course.*

German I will focus on development of the four basic skills of a language: listening, speaking, reading, and writing. Students will be able to describe themselves and others, and express likes and dislikes in the German language. Students are given insights into Germanic culture to increase their awareness of cultural diversity and customs throughout regions of Germany, Switzerland, and Austria. Germany has Europe's strongest economy, and the language is also useful in many worldwide companies both in the United States and abroad.

The completion of the four-level program is strongly recommended for college-bound students entering the field of international business and law, the sciences, tourism, military service and international relations.

## German II 306

**Grade level:** 9,10,11,12

**Credits:** 1 Elective Credit

**Career Pathways:** *All 5 Areas*

**Periods per Cycle:** 6

**Length of Course:** 90 days

**Quality Points:** 5 (College Prep)

*Prerequisite: German I*

*A final written and oral exam is a requirement of this course.*

German II will expand the development of the four basic skills of a language and concentrate on oral proficiency and further grammar development. Students will continue to develop their ability to speak and write in German while simultaneously enhancing their understanding of the German culture. The completion of the four-level program is strongly recommended for college-bound students entering the field of international business and law, the sciences, tourism, military service, and international relations.

## German III 307

**Grade level:** 10,11,12

**Credits:** 1 Elective Credit

**Career Pathways:** *All 5 Areas*

**Periods per Cycle:** 6

**Length of Course:** 90 days

**Quality Points:** 5 (College Prep)

*Prerequisite: German II*

*A final written and oral exam is a requirement of this course.*

German III further develops the four language skills, as well as, a better understanding of German culture. German will increasingly be used for instruction, and students are encouraged to respond in German. The completion of the four-level program is strongly recommended for college-bound students entering the fields of international business and law, the sciences, tourism, military service, international relations, and education.

## German IV 308

**Grade level:** 11,12

**Credits:** 1 Elective Credit

**Career Pathways:** *All 5 Areas*

**Periods per Cycle:** 6

**Length of Course:** 90 days

**Quality Points:** 5 (College Prep)

***Prerequisite: German III***

***A final written and oral exam is a requirement of this course.***

German IV refines and enhances the four language skills. Students ability to understand and communicate in German will be tested and challenged through daily instruction held almost exclusively in the German language. The course focuses on conversational activities and includes additional grammar, as well as an overview of Germanic art, culture, literature, and geography. The completion of the four-level program is strongly recommended for college-bound students entering the fields of international business and law, the sciences, tourism, military service, international relations, and education.

## AP German Language & Culture 317

**Grade level:** 11,12

**Credits:** 1 Elective Credit

**Career Pathways:** *All 5 areas*

**Periods per Cycle:** 6

**Length of Course:** 90 days

**Quality Points:** 6 (AP)

***Prerequisite: Completion of German IV and grade of A or B in German IV (or teacher override)***

The AP German Language and Culture course emphasizes communication (understanding and being understood by others) by applying the interpersonal, interpretive, and presentational modes of communication in real-life situations. This includes vocabulary usage, language control, communication strategies, and cultural awareness. The AP German Language and Culture course strives not to overemphasize grammatical accuracy at the expense of communication. To best facilitate the study of language and culture, the course is taught almost exclusively in German.

The AP German Language and Culture course engages students in an exploration of culture in both contemporary and historical contexts. The course develops students' awareness and appreciation of cultural products (e.g., tools, books, music, laws, conventions, institutions); practices (patterns of social interactions within a culture); and perspectives (values, attitudes, and assumptions).

# Lancaster county career & technology center programs of study (POS)

The Carl D. Perkins Career and Technical Education Act of 2006 requires the development and implementation of career and technical Programs of Study (POS). The Lancaster County Career & Technology Center, under the Act, is now required to offer the relevant academic and technical courses as they relate to the POS. Programs of Study are very similar to, and build on, positive initiatives, such as Tech Prep, career pathways, career academies and career clusters, already underway in career and technical education in Pennsylvania.

Students participating in an approved state Program of Study (POS) must successfully complete the scope and sequence below, in order to be eligible for statewide articulations with post-secondary programs. For consideration in a Program of Study, students must complete an LCCTC application within the designated time period and the student's successful completion of POS secondary academic courses. These academic courses include:

- 4 Years of College Prep English (4th yr at LCCTC);
- 3 years of College Prep math including Algebra I, Geometry, Algebra II and a higher level math;
- 3 years of science including Biology, Chemistry and Physics or Physical Science; and
- 3 years of social studies including US and World History, with attention given to civic learning.

## “programs of study” secondary scope and sequence

Grade 9	Grade 10	Grade 11	Grade 12
Elective(s) Classes related to Career Interests	Elective(s) Classes related to Career Interests	Elective(s) Classes related to Career Interests	<b>LCCTC Full Day Program</b>
English English 9 CA	English English 10 CA	English English 11 CA or American Literature or British Literature or Dramatic Literature	English <b>LCCTC Post-Secondary Public Speaking**</b>  **Required
Math Algebra I or Algebra II or Geometry	Math Algebra II or Geometry or Algebra III	Math Geometry or Algebra III or Precollege Math or Precalculus/Trigonometry or AP Statistics or Applied Calculus or AP Calculus	Math
Science Earth Science or Physical Science or Biology	Science Biology or Chemistry	Science Chemistry or Community Chemistry or Principles of Technology or Physics	Science <b>HACC Dual Enrollment</b> BIO 105 Medical Term* 3 Cr. AH 140 Intro to Allied Health* 3 Cr. <b>PA College of Health Sciences</b> BIO 175 Anatomy & Phys I* 3 Cr.  *Health Center Students Only
Social Studies American Studies	Social Studies World History	Social Studies Process of Democracy	Social Studies <b>HACC Dual Enrollment</b> PSY 101 General Psychology 3 Cr. SOC 201 Intro to Sociology 3 Cr. <b>PA College of Health Sciences</b> PSY 100 General Psychology* 3 Cr.  *Health Center Students Only
<ul style="list-style-type: none"> <li>• Career Pathways</li> <li>• Electronic Career Portfolio</li> <li>• Job Shadowing related to student's pathway</li> <li>• Career &amp; Work Standards</li> </ul>	<ul style="list-style-type: none"> <li>• Career Pathways</li> <li>• Electronic Career Portfolio</li> <li>• Job Shadowing related to student's pathway</li> <li>• Career &amp; Work Standards</li> </ul>	<ul style="list-style-type: none"> <li>• Career Pathways</li> <li>• Electronic Career Portfolio</li> <li>• Visits to LCCTC &amp; Colleges</li> <li>• Career &amp; Work Standards</li> </ul>	<ul style="list-style-type: none"> <li>• Industry Credentials</li> <li>• Career &amp; Work Standards</li> <li>• Co-Op/Clinical</li> <li>• CTC Portfolio</li> <li>• Articulation to Post-secondary</li> <li>• HACC College in the High School Courses</li> </ul>

# Lancaster county career & technology center program offerings

## Full day Programs - Grade 12

Brownstown Campus	Mount Joy Campus	Willow Street Campus
<b>Construction Technologies Center</b> Architectural CAD – Design Commercial Construction/Management Electrical Construction Technology Heavy Equipment Operation & Basic Maintenance HVAC/R Painting & Interior Finishes Plumbing  <b>Information Technology Center</b> Computer Systems Technology  <b>Visual Communications Center</b> Commercial Art Digital Design/Print Media Interactive Media & Web Design Photography & Digital Imaging	<b>Advanced Manufacturing Center</b> Electro-Mechanical Engineering Technology Metals Fabrication Welding Technology Precision Machining & Computer-Aided Manufacturing  <b>Construction Technologies Center</b> Residential Carpentry  <b>Consumer Services Center</b> Early Childhood Education  <b>Culinary Arts Center</b> Baking & Pastry Arts Culinary Arts/Chef Event Planning & Tourism Services Management  <b>Protective Services Center (at the Lancaster County Public Safety Training Center)</b> Protective Services Academy	<b>Agriscience Center</b> Animal Production Science & Technology Veterinary Assistant  <b>Health Care Center</b> Patient Care Technician Dental Assistant Medical Administrative Assistant Medical Assistant Nursing Assistant/Home Health Aide Sports Medicine and Rehabilitation Technician  <b>Transportation Technologies Center</b> Automotive Technology Collision Repair Diesel Equipment Technology RV & Outdoor Power Equipment

## Part Day Programs - Grades 11 & 12

<b>Senior Only</b> Advanced Health Careers <b>Grades 11</b> Intro to Construction Careers Intro to Culinary Careers Intro to Health Careers Intro to Manufacturing Careers Intro to Transportation Careers Intro to Visual Communication Careers	<b>Senior Only</b> Advanced Health Careers <b>Grades 11</b> Intro to Construction Careers Intro to Culinary Careers Intro to Health Careers Intro to Transportation Careers	<b>Senior Only</b> Advanced Health Careers <b>Grades 11</b> Intro to Construction Careers Intro to Culinary Careers Intro to Health Careers Intro to Manufacturing Careers Intro to Transportation Careers Intro to Visual Communication Careers
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## General Information:

### Full Day Programs – Grade 12

High school seniors spend the day at one of the three Lancaster County Career & Technology Centers, Brownstown, Mount Joy or Willow Street Campus. Students participate in a comprehensive technical or career-oriented program. The full-day program allows more usable time for instruction and enables students to gain insight into daily work patterns. In full-day programs an LCCTC student may earn college credits toward an associate degree at two year colleges. Through partnerships with area colleges, LCCTC provides a variety of dual enrollment courses. The LCCTC also has articulation agreements with 2-year colleges and technical schools. Dual enrollment and articulation offer college-level segments that give students an additional head start toward their future career and life-long learning.

### Part Day Programs – Grades 11 & 12

Part day programs enable college bound seniors and students in grade 11 the opportunity to explore different aspects of a career field. The senior part day programs enable students to explore a career area for a few hours during each school day. Since the programs meet for only a part of a day, students can gain technical skills at LCCTC while meeting academic requirements for college at their sending schools. Since the programs meet for only a part of a day, students can gain technical skills at LCCTC while meeting academic requirements for college at their sending schools. The 11th grade programs allow students to explore a variety of careers within an occupational cluster and are designed for students who plan to apply for one of the full-time Lancaster County Career & Technology Programs during their senior year.

More information about Lancaster County Career & Technology and its programs can be found at [www.lancasterctc.edu](http://www.lancasterctc.edu). For enrollment and application information, please contact your school counselor.

# Lancaster county career & technology center dual enrollment program



**Students Occupationally and Academically Ready**

[www.education.state.pa.us](http://www.education.state.pa.us)



**SOAR programs of study  
prepare today's student for  
tomorrow's high demand  
and high wage careers**

SOAR is built on programs of study (POS) that incorporate secondary and postsecondary education elements and include coherent and rigorous academic and technical content aligned with Pennsylvania's challenging academic standards.

SOAR Agreement Articulation for advanced credit transfer is made possible when Perkins-allocated postsecondary institutions and Pennsylvania secondary schools offering SOAR programs agree to the terms and conditions stated in the Perkins Statewide Articulation Agreement.

## **SOAR Mission**

The mission of SOAR is to prepare students for college and careers in a diverse, high-performing workforce.

## **SOAR Benefits**

- Saving Money on College Tuition
- Saving Time by Shortening College Attendance
- Getting on the Right Career Pathway
- Entering the Job Market Ready
- Getting a Consistent Education

## **SOAR Articulation**

SOAR credits are accepted at higher education institutions.

### **Website Navigation**

- **Background**  
Policy information on programs of study
- **Framework**  
Templates and crosswalks to implement programs of study
- **Articulation**  
Information relating to statewide articulation agreements

### **Learn More About SOAR**

- **Programs of Study (POS)**
- **Planning Your Career**
- **Qualifying for SOAR College Credit**
- **Postsecondary SOAR Partners**

**Go to [CollegeTransfer.net](http://CollegeTransfer.net) to see how  
SOAR programs are accepted at  
higher education institutions**



**Get The Credit You Have Already Earned**



**For further information contact:**  
Bureau of Career and Technical Education  
[www.education.state.pa.us](http://www.education.state.pa.us)







# advanced manufacturing center

## Electro-Mechanical Engineering Technology

The Electro-Mechanical Engineering program is designed as a pre-engineering program with an industry driven curriculum developed by leaders in the field. This program combines mechanics, control, electronic and electrical engineering, computer science, and systems design to create useful products. Examples of Electro-Mechanical systems include robots, digitally-controlled combustion engines, and machine tools with self-adaptive tools, contact-free magnetic bearings, and automated guided vehicles. In such systems, software has become an integral part of the product itself, an actual "machine element" necessary for proper function and operation. The Electro-Mechanical Engineering program includes an innovative curriculum. Students will gain knowledge and skills in: blueprint reading, mechanics, pneumatics, hydraulics, electricity, electronics, motors, motor control, programmable logic controls, robotics and motion control, process control instrumentation, and computer integrated manufacturing.

## Metals Fabrication

This program teaches skills necessary for construction of metal roofing, siding, spouting, welding application, and the layout, fabrication and installation of heating, ventilation and air conditioning (HVAC) ductwork along with other custom applications used in manufacturing and construction fields. In addition to lab work, sheet metal students create HVAC ductwork and flashing work for the student-built house project. The program is nationally certified by the National Center for Construction Education and Research (NCCER) which is recognized by the Associated Builders and Contractors (ABC). Students learn how to set up and operate major fabricating machines, such as shears, brakes, presses, and forming rolls. These machines cut, bend, form or strengthen materials. Sheet metal jobs may require considerable bending, lifting, standing and squatting. Workers need good hand-eye coordination, manual dexterity and measurement skills, plus the ability to visualize three dimensional projects.

## Precision Machining & Computer Aided Manufacturing

Every machine needs the skilled hand of a good operator. In the metal fabrication industry, you might find yourself working with a press brake to cut large sheets of metal to size before they go into the production line. You can operate a rolling machine to transform flat material into a specific curved configuration or angle roll the metal. Shearers cut material into specified shapes. The operator controls the process and makes sure that the work is up to company standards. The program will prepare students in the use of metal working, CNC machining and areas of welding for employment and post-secondary technical training.

## Welding Technology

Welders apply intense heat to metal pieces to join, melt and fuse them to form a permanent bond. Students in the program learn the techniques of Oxyfuel, Arc, Mig and Tig welding processes necessary for a variety of construction and repair projects such as building bridges, automobiles and other manufactured products. The Welding Technology program is nationally accredited by the American Welding Society (AWS/SENSE) and introduces students to both welding and cutting. Welders and cutters need manual dexterity, strength to lift heavy objects, measurement skills, good eyesight and hand-eye coordination. They should be able to concentrate on detailed work for long periods and be able to bend, stoop and work in awkward positions.



# agriscience center



## Animal Production Science and Technology

This program introduces students to the exciting and dynamic Agriscience industry while preparing them with the knowledge, hands-on training, and technical skills to successfully enter the career ladder in production animal science. The program covers topics including anatomy and physiology, reproduction, veterinary care, handling and restraint, nutrition, agriculture law compliance, biosecurity, genetics, and laboratory procedures. Students in this program will have the opportunity to do both theory in the classroom and hands-on education in the lab and on curriculum trips. Students will be exposed to cows, horses, sheep, goats, alpacas, and poultry. There is a demand for skilled workers with a strong work ethic. Graduates will have employment options in the expanding and diverse field of large animal sciences.

## Veterinary Assistant

The program combines classroom theory and laboratory experience on topics including small animal veterinary care, surgical assisting, laboratory testing, cleaning and feeding techniques. A career as a Veterinary Assistant encompasses all parts of veterinary medicine and assists Veterinary Technicians and Veterinarians in the care of animals. Common duties would include animal restraint, receptionist tasks, surgical assisting, setting up for laboratory procedures, grooming, exercising animals and cleaning. Students learn hands on skills with dogs and cats. Graduates could obtain employment in veterinary hospitals, animal training facilities, boarding kennels, grooming parlors or any business that houses or cares for animals. This program has an affiliation with the Lancaster Humane League and they perform low cost spay and neuter surgeries for the public once a week. This is the only program in the state that has students practicing surgical assisting tasks on a weekly basis. The demand for trained veterinary assistants has steadily increased over the past decade and this growth is expected to continue.



## Architectural CAD – Design

The Architectural CAD–Design program offers a foundation of basic CAD (Computer-Aided Drafting) skills and knowledge, preparing students to attend a two or four-year institution of higher learning or to begin a career as an entry level drafter and/or CAD operator. Students learn techniques through a self-paced program of instruction that includes instruction in AutoCAD software and other architectural concepts. Architectural draftspersons prepare accurate architectural working plans, cross-sections and details for engineering drawings. They may be required to make mathematical calculations, and to estimate both the quantity and cost of materials needed for a project. The program content consists of detailed instruction in basic house design, room planning, floor plans, elevations and preparation of working drawings and details.

## Commercial Construction/Management

The Commercial Construction and Management program offers students the opportunity to gain skills and knowledge for entry-level employment in the commercial/industrial construction field. The skills are acquired through a unique blend of theory, lab, and job site experiences. The program is certified by the National Center for Construction Education and Research (NCCER) and is recognized by the Associated Builders and Contractors (ABC). It includes instruction in and hands-on application of power tool operation, blueprint reading and layout, site preparation, concrete, framing with metal and wood, building design, interior finishes, exterior finishes, estimating and purchasing procedures. Additionally, the curriculum offers the Occupational Safety and Health Administration (OSHA) ten hour safety training, Hilti Powder Actuated Fastener certification, Hydromobile Scaffolding certification, JCB backhoe training, and construction fork truck training.

## Electrical Construction Technology

The Electrical Construction Technology program is recognized by the Associated Builders and Contractors (ABC) and taught by a certified National Center for Construction Education and Research (NCCER) instructor. The program prepares individuals for employment in today's residential, commercial and industrial electrical industries. Instruction includes electrical principles and theory, residential and commercial wiring, electrical maintenance, basic motor control systems and transformers. Electricians install, connect, test and maintain electrical systems for a variety of purposes. Electricians follow the requirements of the National Electrical Code (NEC) specifications and procedures. Students learn these guidelines and how to navigate the NEC. Excellent reading and math skills are necessary, as well as good eyesight with normal color vision to distinguish color codes on wires.

## HVAC/R

From furnaces to refrigeration units, systems that control heating, ventilation, air conditioning and refrigeration are important components of today's residential, commercial and industrial buildings. The HVAC/R program prepares students to install, repair and maintain this equipment. The program is nationally certified by HVAC Excellence and by the National Center for Construction Education and Research (NCCER), and is recognized by the Associated Builders and Contractors (ABC). Curriculum studies include: HVAC equipment line voltage circuits, 24-volt control circuits, electric schematics, air distribution and duct work, air conditioning, heat pumps, electric heat, gas heat, oil heat, hydronics and blueprint reading. Lab includes basic HVAC industry entry level skills of the following: electric circuits, soldering, brazing, black iron piping, sst piping, sheet metal duct, basic fiberglass duct, air conditioning, heat pumps, gas furnaces, oil furnaces, boilers. Employees in this field need a strong mechanical aptitude, and solid reading and math skills are needed to understand technical manuals.

## Painting & Interior Finishes

This program teaches the basics of residential, commercial and industrial painting and flooring. Lessons include fundamentals of color theory, using tools, estimating material amounts, using scaffolding and ladders, reading blueprints. The program is certified by the National Center for Construction Education and Research (NCCER) and is recognized by the Associated Builders and Contractors (ABC). The curriculum covers various painting/finishing techniques including exterior and interior painting, wood finishing and spray painting. Instruction in wall covering installation includes preparing drywall and hanging wallpaper around doors, windows, inside and outside corners, and archways. Students learn how to apply finishes to both antique and new furniture. Flooring lessons include the installation of ceramic tile and vinyl. Students use a wet saw, tile cutter and trowels to prepare and lay ceramic tile for floors, countertops, backsplash, tub surrounds and shower stalls. Work in this field requires bending, kneeling, crawling, working on ladders and the flexibility to maneuver in confined areas.

## Plumbing

The high-paying field of plumbing involves the installation and repair of water, drainage, waste disposal and gas systems in residential, commercial and industrial buildings. Plumbers also install fixtures, such as bathtubs, sinks and appliances including dishwashers and water heaters. The Plumbing program is certified by the National Center for Construction Education and Research (NCCER) and recognized by the Associated Builders and Contractors (ABC). The program covers blueprint reading, residential systems, fixture and equipment installation, system maintenance, repair and troubleshooting. Other areas include plumbing rough-in, PVC and metal piping, water heater service and system installation, system performance, estimations, soldering, drain line work and using trade tools and equipment. Students acquire job site experiences, such as installing plumbing in residential and commercial buildings, as part of their training. The class is responsible for the installation of all plumbing systems in the new house construction project, including gas mains, water mains, sewer lines and fixtures.

## Residential Carpentry



Our Residential Carpentry class encompasses a wide variety of skills necessary for employment as a Carpenter Apprentice. With an emphasis on personal safety, students are trained to read a blueprint, make precise measurements, estimate materials and do rough framing. They will also learn to use power tools, do exterior and interior finishing, concrete forming, roof framing, hardwood floor installation and stair construction just to name a few. Seniors are given the opportunity to apply their hands-on knowledge at an off-campus job site where, under careful supervision, they will participate in residential renovation and construction using the latest green technology. On completion of projects, students are asked to focus on the accuracy of their work. Our program is recognized by the Associated Builders and Contractors (ABC) and certified by the National Center for Construction Education and Research (NCCER).



## consumer services center

### Early Childhood Education



This program is designed to train and prepare students for employment in the early learning field and provides the foundation for study in higher education. Early Childhood students receive hands-on experiences at the state-of-the-art Early Learning Center located on the Mount Joy campus, at the on-site Head Start program, and at a local elementary school. A graduate of this program who meets the requirements can qualify as an assistant group supervisor in Early Learning centers throughout Pennsylvania. In addition, students can prepare for the nationally recognized Child Development Associate credential. The students study all phases of child development: physical, social, emotional, and intellectual. Instruction is provided in health, safety, development, learning environments, guidance, classroom management, and observation and learning activities. This program's curriculum is aligned with several college courses at local post-secondary schools. This allows students to earn college credits towards degrees in related occupations, such as: Elementary Education, Early Childhood Education, and Human Development and Family Studies.



## culinary arts center

### Baking and Pastry Arts



The Baking and Pastry Arts program is equipped with the same state-of-the-art tools and machines used in industry settings. The program teaches the functions of ingredients in products, recipe conversions, sanitation, equipment safety and proper food handling. Students gain experience by preparing desserts, pastries and breads, which are sold or served in the Culinary Arts Center restaurant and store. Some of these products include tortes, flans, chocolate specialties, Danish, puff pastries, pies, mousses, specialty cookies, sauces, custards, puddings, icings and a wide variety of both breads and decorated cakes.

### Culinary Arts/Chef



In the Culinary Arts/Chef program, students learn how to prepare soups, sauces, meat entrees, vegetable dishes, salads and dressings as well as herb and spice identification. Students prepare menu items ranging from local favorites to classical and international cuisine. Other areas covered include fresh pasta preparation, fabrication of beef, pork and poultry, seafood identification and preparation, appetizers, desserts, plate presentation, garnishing, beverage creation, and restaurant service. Course work also includes purchasing, inventory, menu planning, nutrition, recipe costing and customer service. A major emphasis is placed on sanitation and use and care of kitchen equipment. A pleasant attitude and neat appearance are important when dealing with customers. Individuals need stamina to stand for long periods of time, excellent hand-eye coordination and a keen sense of taste and smell. Students will participate in a variety of serving techniques ranging from beverage service to in room dining to fine dining. An array of customer service skills and techniques will also be evaluated and practiced by each student.

### Event Planning & Tourism Services Management



This program takes a first-hand look at the fast-paced and exciting careers in hospitality. Students in this program will receive academic instruction and work experience that reflects industry standards for jobs within the hospitality, event planning and lodging industry, and gain work experience at a local lodging property. Students in this program will learn an overview of lodging management, leadership and management skills, reservations, front desk, housekeeping, marketing and sales, event coordination, and food and beverage service. When students graduate, they will be ready to begin their hospitality career or continue their education at a college or university.





## Patient Care Technician

This challenging program prepares students to work as nursing assistants in acute care settings (Hospital, Home Health Agency, Physician Office). A nursing assistant provides direct patient care while utilizing technical skills in tasks assigned by a registered nurse. This individual completes and documents patient care activities. This program is certified by the National Health Career Association (NHA). The curriculum includes medical terminology, anatomy and physiology, medical law and ethics, math, nutrition, growth and development, critical thinking skills, pathophysiology, bedside care, personal care, ECG, phlebotomy, emergency skills, home health aide skills, and medical assisting skills including front office skills. This theory-intensive program includes a significant amount of reading from college level textbooks. The physical ability to move patients, excellent hand dexterity, and good hand-eye coordination are a must. This program offers a clinical internship in a hospital setting, preparing students for nursing programs and other health care careers.

## Dental Assistant

The Dental Assistant program integrates lectures, demonstrations and hands-on experiences to teach students a variety of dental-related subjects. The major areas of study include anatomy and physiology, chairside dental assisting, radiology, dental materials and microbiology/sterilization. The program also covers pharmacology, oral pathology, dental anatomy, computer introduction, medical/dental emergencies, dental office business procedures, legal/ethical management and communications. During the second half of the year, students participate in clinical rotations in private dental offices, clinics and hospitals. Experience gained in the Dental Assistant program prepares students to take the Dental Assisting National Board in Dental Radiology Health and Safety required by the Commonwealth of Pennsylvania. The program's textbook is written on a college level, requiring that students entering the program possess excellent reading/comprehension skills. The coursework is a stepping stone to furthering your education as an EFDA, Dental Hygienist or Dentist.

## Medical Administrative Assistant

This program prepares students to serve on a healthcare team in the administrative role. A Medical Administrative Assistant requires medical knowledge, organizational and business skills, communication skills, and the ability to meet accepted performance standards of health care workers. The program includes medical terminology with abbreviations, anatomy and physiology, disease processes, law and ethics, medical transcription, insurance procedures, coding, billing, collections, medical records, and electronic medical records. Administrative skills include appointment scheduling, phone technique, filing medical records, maintaining electronic medical records, typing medical reports, filling out insurance forms, banking duties, computer skills, and many other administrative procedures. The program textbooks are written on a college level, so students need excellent reading skills. Students should have basic computer and keyboarding skills upon entering the program. Qualifying students participate in an eight-week externship at a physician's office, hospital, clinic, insurance company, laboratory, pharmaceutical company, etc.

## Medical Assistant

Medical assistants are professional, multi-skilled individuals who perform administrative and clinical duties in health care settings. The program includes studies in anatomy and physiology, health insurance coding and billing, medical math, medical terminology, medical law and ethics, pharmacology, clinical and administrative skills. In addition, curriculum includes clinical skills such as phlebotomy, laboratory tests, minor surgical procedures, medication administration and performing electrocardiograms. During the fourth making period, students who have successfully completed program requirements may participate in a six-week clinical experience in a physician's office. The National Health Career Association (NHA) participates with the program to allow medical assistant students to receive certification through this agency. Students who participate in clinical may be eligible to sit for the exams to become certified as a clinical medical assistant, administrative medical assistant, phlebotomist and/or EKG technician. Students planning to pursue further health care training after high school should take the SAT or ACT testing during their junior year.

## Nursing Assistant/Home Health Aide

This rewarding program prepares students to work as nursing assistants in long-term care facilities and/or as an aide in the home care environment. A nursing assistant provides direct patient care while utilizing technical skills in tasks assigned by a licensed nurse in the long term care setting. Nursing assistants complete and document patient care activities. This course is approved by the Pennsylvania Department of Education. This course will offer CNA training as well as Home Health Aide training. The curriculum includes medical terminology, anatomy and physiology, legal aspects of health care, math, nutrition, growth and development, critical thinking skills, pathophysiology, and bedside care, as well as home health care. The physical ability to move patients, good hand-eye coordination, dependability, and compassion are required. This program offers students the ability to participate in clinical rotations at long-term care facilities. After clinical completion students are eligible to take the Red Cross certification test. Additional certifications include: American Heart Association First Aid, and Personal Care Home/Direct Care Staff Certification, American Heart Association Healthcare Provider CPR.

## Sports Medicine and Rehabilitative Technician

The program combines tasks and theory to introduce students to the various fields of sports medicine and rehabilitation therapy. Students will perform a variety of duties to aid in the successful treatment of patients. This program will prepare students to work as a professional healthcare team member and prepare students that wish to pursue post-secondary training in the various healthcare fields. The Sports Medicine/Rehabilitation Therapy program pathway can lead to occupations in athletic training, physical therapy, occupational therapy, sports medicine and other related fields.



# information technology center

## Computer Systems Technology



Computer Systems Technology includes courses in CompTIA A+ and Network+. In the A+ course, students learn about computer hardware and software such as motherboards, hard drives, operating systems, printers, customer service and troubleshooting in preparation for the CompTIA A+ certification exams. In the Network+ course, students learn advanced networking skills such as subnetting and routing in preparation for the CompTIA Network+ certification exam. Once these courses have been mastered, various vendor-specific product certifications may be taken in order to give the student more specific skills, such as AMP/Tyco cabling certification. Students acquire an in-depth understanding

of the planning, installing, configuration and maintenance of computer systems. Instruction includes knowledge of server-level hardware implementations, data storage and data recovery. The program follows standards set forth by CompTIA, AMP/Tyco, and CISCO.



# protective services center

## Protective Services Academy



The Protective Services programs prepare individuals to apply technical knowledge and skills required to perform entry-level duties in law enforcement, firefighting, emergency medical services, and other public safety services. This program stresses the techniques, methods, and procedures specific to the areas of criminal justice, fire protection, and emergency medical services especially in emergency and disaster situations. Physical development and self-confidence skills are emphasized due to the nature of the specific occupation(s). In addition to the application of mathematics, communication, science, and physics students receive training in social and psychological skills, map reading, vehicle and equipment operations, the judicial system, firefighting, pre-hospital emergency medical care and appropriate emergency assessment, treatment and communication.



# transportation technologies center

## Automotive Technology



With each new model year, automobile systems become more sophisticated. The Automotive Technology program prepares students for entry-level dealership or Independent shop employment and to continue their training at a post-secondary school. The National Automotive Technicians Education Foundation (NATEF) has certified this program in four areas: brake systems, steering and suspension, electronics/electricity, and engine performance. In addition to these areas, the program includes instruction in automotive fundamentals, customer relations, engine management systems, and Pennsylvania State Inspection and Emissions Inspection procedures. Qualified students may participate in the Auto YES Program (Automotive Youth Educational Systems). This intensive program allows students to continue to learn technical skills as they work side-by-side with an experienced technician at a local dealership. Points on a student's driver's license may prevent him/her from being hired by dealerships as a new technician.

## Collision Repair



Motor vehicle accidents occur frequently, and while some vehicles are damaged beyond economical repair, most receive only minor damages. Collision Repair Technicians examine these damages and use tools to straighten bent vehicle bodies, remove dents and replace parts so that vehicles operate properly and look like new. The Collision Repair program trains students in this field, covering areas such as safety, estimating, hand and power tool usage, frame repair, body alignment, refinishing, and customer relations. Curriculum also includes metal straightening, mig welding, metal cutting, glass and accessory service, measurement, panel replacement and alignment, servicing doors, surface preparation, cosmetic repairs and the selection of automotive paint finishes. Collision repair requires good color discrimination capabilities, excellent eye-hand coordination, stamina to stand for long periods of time, and a good understanding of measurement and ratios. Qualified students may participate in the Auto YES Program (Automotive Youth Educational Systems). This intensive program allows students to work side-by-side with an experienced technician at a local dealership.

## Diesel Equipment Technology

As the diesel equipment industry continues to expand, the demand for mechanics and technicians to repair and maintain diesel equipment grows. The program instructs students in personal and workplace safety practices, tools, measuring devices and fasteners, basic engine principles, preventive maintenance and inspection. Study also includes electrical and electronic systems, truck brake systems, suspension and steering systems, and diesel engine rebuilding. The program is NATEF (National Automotive Technicians Education Foundation) certified in the following areas: diesel engine, brakes, electrical/electronic systems, preventive maintenance inspection, suspension and steering. Mechanics and technicians require a driver's license and a clean driving record. Due to federal regulation, mechanics must undergo drug and alcohol testing when hired and be able to pass random drug and alcohol testing even after continued employment. Qualified students may participate in the API Program (Advanced Placement Internship) and/or cooperative education. The intensive API program allows students to work side by side with an experienced diesel technician.

## Heavy Equipment Operation & Basic Maintenance

This program is designed to provide students with the technical and job-related skills to work in the field of heavy equipment operation and maintenance. Students learn skills that prepare them to be heavy equipment operators for excavation and construction. When weather conditions permit, students practice their operation techniques at a training site. Skills are relevant to excavation, site layout, use of transit/laser/ hand levels. The program is certified by the National Center for Construction Education and Research (NCCER) and recognized by the Associated Builders and Contractors (ABC) and also the Associated Pennsylvania Construction Contractors. The course and its curriculum have been developed in conjunction with the Pennsylvania Department of Transportation.

## RV & Outdoor Power Equipment

From lawn and garden equipment, such as lawn mowers, lawn and garden tractors, chain saws, leaf blowers, and string trimmers, to vehicles such as motorcycles, dirt bikes, 4-wheelers, and snowmobiles, small engines power many machines that make our lives more fun and convenient. The RV and Outdoor Power Equipment program offers both classroom and lab experience in all phases of repair and maintenance work on outdoor power equipment and recreational vehicles. The program is nationally certified by the Equipment and Engine Training Council (EETC); Outdoor Power Equipment (OPE). It provides instruction and practice in the areas of diagnosis of malfunction, four and two-stroke engines, disassembly of engines, examination of parts, and reassembly of engines, hydrostatic and manual drive units and state inspection.

Study includes various systems including fuel, electrical, lubricating, governing, steering, suspension, and braking systems. Students use an assortment of technical manuals, testing and diagnostic equipment, hand tools and power tools. During the school year, students have the opportunity and training to take EETC exams and the PA State Inspection written and performance tests for motorcycles.



# visual communications center

## Commercial Art

The Commercial Art program is designed to introduce students to necessary tools and skills that will help advance their training in Graphic Design, Illustration, Web Design, Fashion/Interior Design, Advertising Art Direction, Animation, and Film. The Commercial Art program stresses craft, concept and professionalism. The program focuses on traditional board work, layout composition, illustration, elemental photography and production art. Program coursework continues with training on Apple® workstations and Adobe® Creative applications as students study computer graphics, typography and production basics. Students entering the Commercial Art program should have a background in several types of art with at least basic computer experience. Drawing ability, creativity, color keenness and the ability to sit at a workstation for extended periods of time, while meeting strict deadlines, are necessary aptitudes. The Commercial Art program is an excellent prelude to advanced post-secondary training at both colleges and art schools. It allows students to prepare an extensive portfolio and even obtain college credit with participating post-secondary schools.

## Digital Design/Print Media

This program provides a comprehensive approach to the printing industry. From the beginning concept to final product, students take print jobs through the entire production process from electronic files to complete prepress, through offset, digital, screen and other printing processes and professional finishing. This program provides a national certification for all students through the Graphic Arts Education and Research Foundation (Print ED/GAERF). Through this comprehensive exploration of graphics and desktop publishing, students cover the fundamentals of page layout, job work flows to digital printers, CTP platemaking, offset press operation and finishing operations in addition to the repurposing of digital information using the Adobe® Creative Suite for the visual communications industry.

## Interactive Media and Web Design

This is an instructional program that prepares individuals to apply HTML, XML, JavaScript, graphics applications and other authoring tools to design, edit and publish (launch) documents, images, graphics, sound and multimedia products on the World Wide Web. This program includes instruction in internet theory, webpage standards and policies, elements of webpage design, user interfaces, vector tools, special effects, interactive and multimedia components, search engines, navigation, morphing, e-commerce tools and emerging web technologies. Web architects or programmers are responsible for the overall technical construction of the website. They create the basic framework of the site and ensure that it works as expected. Web architects also establish procedures for allowing others to add new pages to the website and meet with management to discuss major changes to the site. Students will have the choice to focus career opportunities in areas of Web Design, Web Development or Client Relations.

## Photography & Digital Imaging



The Photography and Digital Imaging program has a carefully structured curriculum that allows students to gain real world experience in digital media while encouraging students to specialize in the medium of their choice. Students begin their photographic education by developing

an understanding of the basic technical skills, along with using their own individual creative talent. Beginning with the camera, students learn the understanding of aperture, ISO, shutter speeds, focal length and depth of field. Students enrolled in this course will gain competency in capturing and producing photographs, using several different digital image file formats (JPG, TIF, RAW). Each individual student will acquire the knowledge to properly prepare and produce digital files, using postproduction software along with the printing of a finished product. The use of different lighting techniques will be taught using both traditional hot lights along with Commercial Studio Strobes. Successful students will acquire and show a formal knowledge of photography through the production and presentation of their own portfolio at the end of the course, along with designing and making their own logo, business card, letterhead and resume.



## part-day programs

### Advanced Health Careers

The Advanced Health Careers Program at the Lancaster County Career & Technology Center is a half-day academic program for seniors, allowing students to attend both the LCCTC and their sending high school to fulfill college preparatory academic requirements. The program gives students an overview of the health care system and an introduction to health care careers. Through an affiliation with Harrisburg Area Community College, the College in the High School program provides students the opportunity to earn six college credits, transferable to a college of their choice. A unique feature of the program is that health care professionals from the Lancaster Regional Medical Center, Ephrata Community Hospital, The Heart of Lancaster, Lancaster General Suburban Outpatient Pavilion, Schreiber Pediatrics, Lancaster Cancer Center, Susquehanna Valley Emergency Medical Services, and other health/medical facilities provide job shadowing opportunities and career information. Classroom instruction includes anatomy, physiology, medical terminology, medical law, ethics, history of health care, health care economics and safety. Classroom activities and job shadowing provide practice or observation in core skills required in a clinical setting. Students must have excellent reading skills and a good foundation in algebra, chemistry and biology.

### Introduction to Construction Careers

Intro to Construction is a half-day, foundational program, which introduces students to careers in the construction industry. Students receive basic instruction in carpentry and construction practices, painting and finishing, electricity, masonry, and plumbing. This program is open to students in grades ten or eleven who plan to apply for admission into one of the full-day senior programs in the Construction Technologies Center. In addition to learning basic skills related to the construction trades, students learn the basics of hand and power tools, power equipment, blueprint reading, and trade-related math. The program offers students exposure to site work, concrete forming, rough framing, exterior and interior finishing, energy conservation, drywall installation, residential and commercial painting, and wood finishing. Students are also exposed to basic electricity and plumbing. Masonry instruction includes the development of clay and shale brick and concrete block, paving with masonry materials, and preparing and pouring concrete. This program stresses problem solving and employability skills necessary for career success.

### Introduction to Culinary Careers

Intro to Culinary is a half-day foundational program of study which introduces students to the culinary related career areas of cooking, baking, restaurant service techniques, and the hospitality industry. This program is offered to students in grades ten or eleven who plan to apply for admission into one of the full day senior programs at the Culinary Arts Center located at the Mount Joy Campus. Students learn baking techniques by preparing quick breads, cakes, pies, and cookies. Students also learn basic cooking methods, breakfast preparation, soups, salads, sandwiches, fast foods, stocks, basic meat cutting, and the presentation of food. Students also learn retail skills by selling foods that they prepare in class. Working in the food service industry requires excellent hygiene and an emphasis on safety and sanitation (lab cleanup). For success

in Intro to Culinary, an individual must have excellent hand-eye coordination, good arithmetic skills to measure ingredients accurately, the ability to work quickly, strength to lift heavy pots and pans, ability to work with others, and the stamina to stand for long periods of time.

### Introduction to Health Careers

The Health Careers program is a foundational program offered on a half-day basis to students in grades ten or eleven. This program is extremely valuable for students who want to pursue a career in the health care field and is especially important for those who are trying to decide which health career path to select. The program is intended for students who plan to apply for a full-day Health Care Center program for their senior year of high school. Many health careers involve direct interaction with patients, which requires excellent communication skills. Health care professionals typically work as part of a team to provide care. They must pay close attention to details to ensure the good health of their patients. Students learn basic clerical and clinical skills. They study anatomy and physiology, medical terminology, medical law and ethics, history of health care, effective teamwork, communication skills, health care financing, and health care safety.

## Introduction to Manufacturing Careers

Intro to Manufacturing program is a foundational program offered on a half-day basis to students in grades ten or eleven. The program focuses on necessary core metalworking skills and prepares students for admission into one of the full-day senior programs at the Advanced Manufacturing Center at the Mount Joy Campus. Students gain useful knowledge of hand tools and machine tools and learn a variety of metal forming processes. The program is designed to allow students the opportunity to explore employment possibilities in metalworking. Students investigate four areas of study, including precision machining, electro-mechanical engineering technology, sheet metal fabrication, and welding. In the electro- mechanical engineering technology phase, students gain experience in basic maintenance and repair, electronics, and sensor technology. The sheet metal fabrication phase introduces students to various skills used in the layout, cutting, forming, and joining of sheet metal. Skills gained in this area are used in employment as a sheet metal mechanic working in roofing, siding, spouting, HVAC ductwork, and custom metal fabrication. The welding phase provides basic training in tig, mig, oxyacetylene, and electric arc welding, which may lead to employment in industrial fabrication, custom welding applications, and repair work.

## Introduction to Transportation Careers

Intro to Transportation is a half-day foundational program of study designed for students in grades ten or eleven who plan to apply for a full-day Transportation Technologies Center program at the Willow Street Campus during their senior year. Instructors combine classroom training and hands-on experiences to prepare students in three areas related to transportation: auto mechanics, diesel mechanics, and small engine mechanics. The study of auto and diesel mechanics covers electrical, cooling, exhaust systems, tires and wheels, seals and gaskets, and preventive maintenance. During the small engine curriculum, students learn disassembly of engines and examination of parts, reconditioning and replacement of parts, diagnosis of malfunctions, and adjustment and repair of fuel systems. All three areas include safety instruction, identification, use of hand and power tools, and use of various fasteners. This program is designed as an entry-level, preparatory program, which has been developed specifically to provide students with the basic skills needed to apply for admission to one of the LCCTC full-day Transportation Technologies Center senior programs and give students skills they will use for their entire life.

## Introduction to Visual Communications Careers

Intro to Visual Communication is a foundational program offered on a half-day basis to students in grades ten or eleven. This program is extremely valuable for students who want to pursue a career in the visual communications field. Students explore and learn specific skills related to a variety of visual communications careers. It is especially important for those who plan to apply for a full-day Visual Communications Center program at the Brownstown Campus during their senior year of high school. Students learn visual and graphic design basics, web design principles, desktop publishing, electronic imaging, color theory, basic drawing, typography, plate making, offset press operation, bindery, pre-press procedures, photography, video-editing and production. This program is designed as an entry-level, foundational program, which has been developed specifically to provide students with the basic skills needed to apply for admission to one of these LCCTC full-day senior programs: Commercial Art, Digital Design/Print Media, Interactive Media and Web Design or Photography and Digital Imaging.

## **Equal Rights and Opportunities/Non-Discrimination Policy Statement**

The Cocalico School District is an equal opportunity education institution and in compliance with the requirements of the Title VI, Title IX, Section 504, and the Americans with Disabilities Act (A.D.A.), will not discriminate on the basis of race, color, religion, national origin, sex, disability or handicap in its activities, programs or employment practices.

For more information regarding civil rights or grievance procedures, contact Dr. Ella Musser, Cocalico School District, South Fourth Street, Denver, PA 17517.

For information regarding services, activities, and facilities that are accessible to and usable by persons with disability, contact Dr. Ella Musser at 717-336-1417.

### **Students with Disabilities**

In compliance with state and federal law, notice is hereby given by the Cocalico School District that it conducts ongoing identification activities as a part of its school program for the purpose of identifying students who may be in need of special education and related services (eligible students). If your child is identified by the District as possibly in need of such services, you will be notified of applicable procedures. Individualized services and programs are available for children who are determined to need specially designed instruction due to the following conditions:

- |  |  |
|--|--|
| 1. Autism/Pervasive Developmental Disorder (PDD)       | 8. Other Health Impairments (OHI)          |
| 2. Deaf-Blindness                                      | 9. Orthopedic Impairment                   |
| 3. Development Delay (Early Intervention Program only) | 10. Specific Learning Disability (SLD)     |
| 4. Emotional Disturbance (ED)                          | 11. Speech and Language Impairment         |
| 5. Hearing Impairment, including Deafness              | 12. Traumatic Brain Injury                 |
| 6. Intellectually Disabled                             | 13. Vision Impairment, including Blindness |
| 7. Multiple Disabilities                               |  |

For further information on the rights of parents and children, provisions of services, evaluation and screening processes and rights to due process procedures, you may contact the Director of Special Education at 717-336-1461.

### **Community Partnership Information**

The Cocalico Community Partnership was formed in 1993 to improve the health, stability and emotional well-being of persons who live or work in the Cocalico area. The goals of the partnership are to: provide educational resources and programs to the Cocalico community; increase community awareness of existing service organizations; and serve as the Cocalico School District's Community Drug, Alcohol and Mental Health Advisory Board. The Partnership's Advisory Board meets monthly on the third Friday at 11:00 a.m. in the School District Staff Development Room. For further information call: Cocalico Community Partnership at 717-336-1417 or write: P. O. Box 800, Denver, PA 17517.



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