



CAREER PATHWAYS
&
PROGRAM OF STUDY GUIDE
2026-2027 SCHOOL YEAR

GENERAL MCLANE HIGH SCHOOL
11761 Edinboro Road
Edinboro, PA 16412

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GRADUATION REQUIREMENTS

ACADEMIC AREAS	REQUIRED CREDITS
English	4 credits
Mathematics	3 credits
Science	3 credits
Social Studies	3 credits
College & Career Readiness	.5 credit
Physical Education / Health / DE	2 credits
Board Approved Electives	12.5 credits
Total Credits	28 credits

In addition to General McLane Graduation Requirements, students must meet the requirements established through Act 158 and Act 339. A student who has completed the requirements for graduation shall not be denied a diploma as a disciplinary measure, but the student may be denied participation in the graduation ceremony when personal conduct so warrants. Such exclusion shall be regarded as a school suspension. (Board Policy 217)

SCHEDULING GUIDELINES

1. All students must register for four (4) courses every nine-week term.
2. Pre-registration- When students access scheduling information via powerschool, recommended courses will be listed. These courses have been recommended on the basis of the student's ability and recommendations from the faculty of the various departments. Deviations from those recommendations should be discussed with the teacher in that discipline area.

RECOMMENDED COURSES

9TH-GRADE	
COURSE	CREDIT
English 9	1
US History 1	1
Science	1
Mathematics	1
Physical Education	.25
Health	.25
Electives	3.50
TOTAL	8

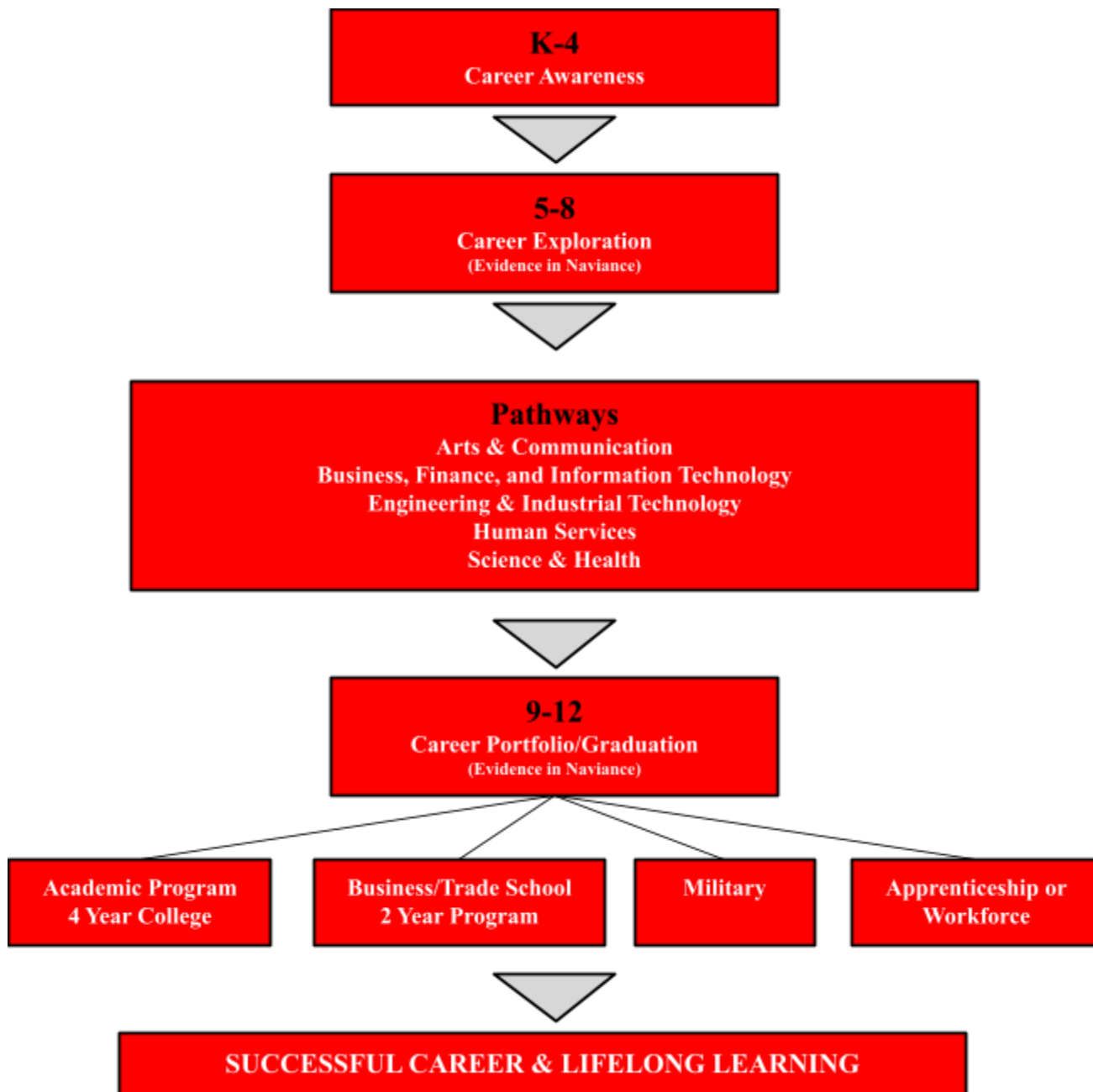
10TH-GRADE	
COURSE	CREDIT
English 10	1
US History 2	1
Science	1
Mathematics	1
Physical Education	.25
Driver's Education	.25
Electives	3.5
TOTAL	8

11TH-GRADE	
COURSE	CREDIT
English 11	1
Government & Econ	1
Science	1
Personal Finance	.5
Physical Education	.25
Health	.25
Electives	3
TOTAL	8

12TH-GRADE 2025-26	
COURSE	CREDIT
English 12	1
Physical Education	.25
Health	.25
Electives	3.5
*Math (Elective)	1.0
*Science (Elective)	1.0
*Social Studies (Elective)	1.0
TOTAL	8

CAREER PATHWAYS

"College, Career and Life Readiness" means that individuals possess the knowledge and skills necessary to succeed in life after high school and to thrive in their community



What are Career Pathways?

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



Why should I choose a career pathway?

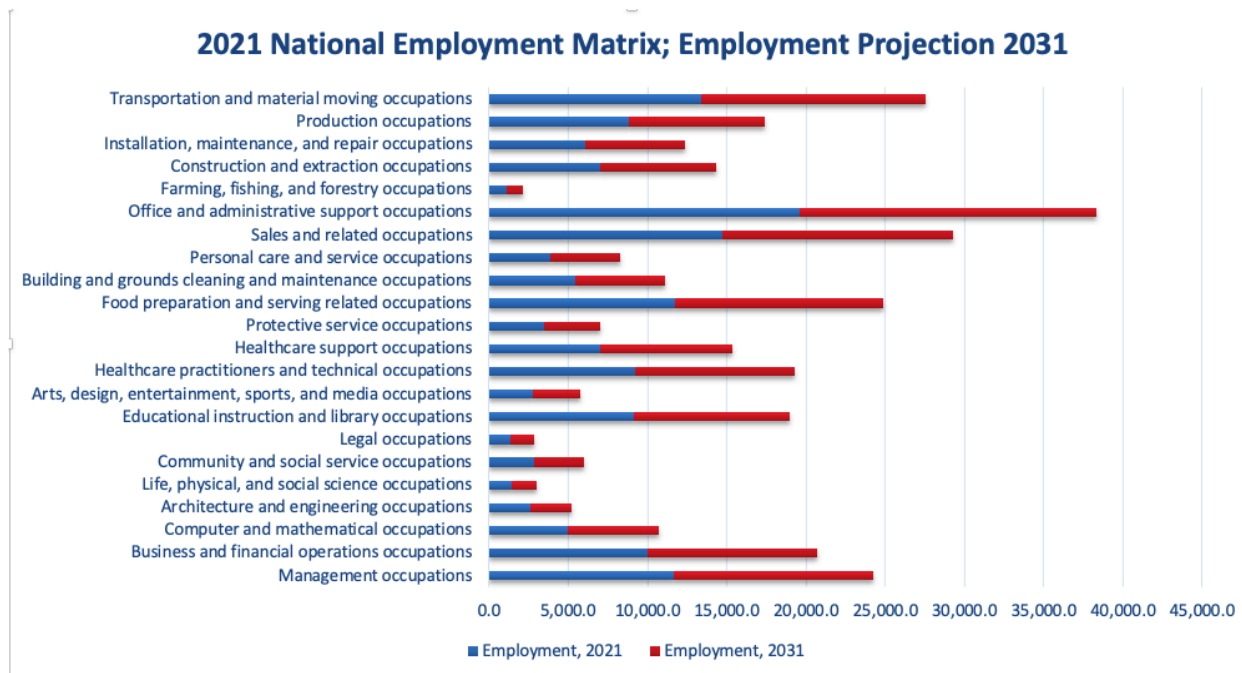
- To help focus on a career area that matches interests.
- To help set goals and align classes necessary to achieve those goals.
- To create career awareness.
- To encourage planning for workforce or postsecondary education opportunities.
- To provide knowledge that relates the high school experience to the world after graduation.

How do I choose a career pathway?

- You will research various career fields in middle school.
- You will take a Career Explorations course in eleventh grade to help guide your decision-making process.
- Your counselors, parents and teachers will assist you.
- You will utilize various software tools to explore and research various careers.

Employment Projections by Occupational Group, 2010-2020

From 2010 to 2020, the U.S. economy is projected to add 20.5 million new jobs.



THE FIVE PATHWAY OPTIONS

Arts and Communications (AC)

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

Career cluster areas:

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

Business, Finance, and Information Technology (BFIT)

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

Career cluster areas:

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

Engineering and Industrial Technology (EIT)

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

Career cluster areas:

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

Human Services (HS)

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

Career cluster areas:

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

Science and Health (SH)

This career pathway is designed to cultivate students' interest in the life, physical and behavioral sciences. In addition, the planning, managing and providing of therapeutic and diagnostic services, health information and biochemistry research development.

Career cluster areas:

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

Arts and Communications (AC) Pathway

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

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

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

SAMPLE CAREERS

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

Business, Finance, and Information Technology (BFIT) Pathway

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

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

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

SAMPLE CAREERS

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

Engineering and Industrial Technology (EIT) Pathway

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

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

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

SAMPLE CAREERS

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

Human Services (HS) Pathway

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

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

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

SAMPLE CAREERS

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

Science and Health (SH) Pathway

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

<i>Are you interested in...</i>	<i>Can you...</i>	<i>Do you enjoy...</i>
<ul style="list-style-type: none"> · <i>Health care environment</i> · <i>Science and medicine</i> · <i>Medical research</i> · <i>Food production</i> · <i>Environment and conservation</i> · <i>Pharmacy</i> · <i>Animals</i> · <i>Physical therapy</i> · <i>Sports and fitness</i> · <i>Information systems</i> · <i>Radiology</i> 	<ul style="list-style-type: none"> · <i>Pay attention to detail</i> · <i>Use a computer and technology</i> · <i>Work in a lab setting or medical facility</i> · <i>Apply scientific theory to real life problems</i> · <i>Work outdoors around animals and plants</i> · <i>Collect and analyze data from experiments</i> · <i>Work with people in need</i> · <i>Work with science and math theories</i> 	<ul style="list-style-type: none"> · <i>Diagnosing and caring for sick animals</i> · <i>Working outdoors with wildlife</i> · <i>Working on cutting edge scientific research</i> · <i>Working on a team</i> · <i>Medical lab research</i> · <i>Making a contribution to society</i> · <i>Working with numbers</i> · <i>Developing conclusions from a database</i>

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

SAMPLE CAREERS

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

Core Course Progression

English Progression	
9	Literacy & Comprehension, Academic, Advanced, Accelerated
10	Literacy & Comprehension, Academic, Advanced, Accelerated <i>*Keystone Exam</i>
11	Academic, Advanced, AP Literature & Composition
12	Academic, Advanced, AP Language & Composition

Social Studies Progression		
Grade	Academic	Accelerated/AP
9	US History I	US History I Accelerated
10	US History II	US History II Accelerated
11	Government & Economics	AP US Government & Politics

Mathematics Progression				
Grade	Academic	Advanced	Accelerated	Accelerated
8	Pre-Algebra/Math 8	Pre-Algebra/Math 8	Algebra I <i>*Keystone Exam</i>	Algebra II
9	Applied Algebra Part I	Algebra I <i>*Keystone Exam</i>	Algebra II or Algebra II Accelerated	Geometry or Geometry Accelerated
10/11	Applied Algebra Part II <i>*Keystone Exam</i>	Algebra II	Geometry or Geometry Accelerated	AP Pre-Calculus or Statistics (CHS)
11/12	Applied Personal Finance	Geometry	AP Pre-Calculus or Statistics (CHS)	AP Calculus AB (CHS)
11/12	Algebra II	AP Pre-Calculus or Statistics (CHS)	AP Calculus AB (CHS)	AP Calculus BC
11/12			AP Calculus BC	

Science Progression			
Grade	Academic	Advanced	Accelerated
9	Integrated Science	Integrated Science	Biology Accelerated <i>*Keystone Exam</i>
10	Biology <i>*Keystone Exam</i>	Biology <i>*Keystone Exam</i>	Chemistry Accelerated
11	Applications of Science	Chemistry Physics Applications of Science	Physics Accelerated or AP Environmental Science
11/12	Chemistry I Physics	Anatomy AP Chemistry (CHS) AP Biology (CHS) AP Environmental Science Physics II Accelerated Astrophysics (.50) Nuclear Physics (.50)	Anatomy AP Chemistry (CHS) AP Biology (CHS) AP Environmental Science Physics II Accelerated Astrophysics (.50) Nuclear Physics (.50)

General McLane Elective Courses

Course Number	Course	Pathways				
		Arts & Communication	Business, Finance, & Information Technology	Engineering & Industrial Technology	Human Services	Science & Health
580	Accounting I		BFIT		HS	
168	Acting & Set Design	AC			HS	
450	Anatomy					SH
429_01	AP Biology (CHS)					SH
334_01	AP Calculus AB (CHS)		BFIT	EIT		SH
334_02	AP Calculus BC		BFIT	EIT		SH
420_01	AP Chemistry (CHS)			EIT		SH
338	AP Computer Science Principles		BFIT	EIT		
128	AP English Language & Composition	AC				
173_01	AP English Literature & Composition	AC				
4011	AP Environmental Science			EIT		SH
334_03	AP Pre-Calculus		BFIT	EIT		SH
160	AP Research	AC	BFIT	EIT	HS	SH
174	AP Seminar	AC	BFIT	EIT	HS	SH
515_01	AP Spanish Language and Culture	AC				
229	AP US Government and Politics	AC	BFIT	EIT	HS	SH
231_01	AP US History	AC				
232	AP World History	AC				
397	Applied Personal Finance					
634	Architectural Design I	AC		EIT		
638	Architectural Design II	AC		EIT		
755	Art Introduction	AC	BFIT	EIT		
752	Artistic Metalsmithing	AC		EIT		
460	Astrophysics			EIT		SH
722	Brass Ensemble	AC				
730	Broadway Dinner Choir	AC				
559	Business Publications	AC	BFIT			

Course Number	Course	Pathways				
		Arts & Communication	Business, Finance, & Information Technology	Engineering & Industrial Technology	Human Services	Science & Health
750	Ceramics	AC				
424	Chemistry Magic			EIT		SH
680	Child Dev I	AC			HS	SH
360	Coding I	AC	BFIT	EIT		
349	Computer Animation	AC	BFIT	EIT		
169	Creative Writing	AC	BFIT		HS	
640	Culinary Arts I	AC			HS	SH
641	Culinary Arts II	AC			HS	SH
241	Current Affairs	AC	BFIT		HS	SH
704_2	Digital Music Creation	AC				
742	Drawing	AC	BFIT	EIT		
744	Drawing II	AC	BFIT	EIT		
480	Drone I	AC	BFIT	EIT	HS	
003	Education Academy	AC			HS	SH
635	Engineering Design I	AC		EIT		
636	Engineering Design II	AC		EIT		
812	Extreme Fitness				HS	SH
836	Fitness & Weight Training				HS	SH
157	Future Ready	AC	BFIT	EIT	HS	SH
725	GM Jazz_Big Band	AC				
759	Graph Design : Photoshop	AC	BFIT	EIT		
758	Graphic Design : Illustration	AC	BFIT	EIT		
757	Graphic Design II	AC	BFIT	EIT		
738	Guitar Ensemble	AC				
758_1	Hand Lettering and Illustration	AC	BFIT			
732_3	History of Musical Theater	AC				
732_2	History of Popular Music	AC				
734	Holiday Choir	AC				
701_1	Holiday Symphonic Winds	AC				

Course Number	Course	Pathways				
		Arts & Communication	Business, Finance, & Information Technology	Engineering & Industrial Technology	Human Services	Science & Health
601	Home Maintenance	AC	BFIT	EIT	HS	
582	Intro to Accounting		BFIT		HS	
610	Intro to Metal Material	AC	BFIT	EIT		
739	Introduction to Piano	AC				
600	Intro to Wood	AC	BFIT	EIT		
548	Intro to World Languages & Culture	AC	BFIT	EIT	HS	SH
593	Introduction to Business	AC	BFIT			
718	Jazz Improvisation I	AC				
781	Lifetime Fitness				HS	SH
780	Lifetime Health				HS	SH
645	Lifetime Nutrition				HS	SH
700	Marching Band	AC				
336	Math K'NEXtions	AC		EIT		
163	Media Arts	AC	BFIT	EIT		SH
612	Metal Production Systems	AC	BFIT	EIT		
557	Microsoft Office Applications	AC	BFIT	EIT	HS	SH
706	Music Theory I	AC				
741	Painting I	AC				
745	Painting II	AC				
720	Percussion Ensemble	AC				
597	Personal Finance	AC	BFIT	EIT	HS	SH
746	Photography I	AC	BFIT	EIT		
747	Photography II	AC	BFIT	EIT		
433	Physics			EIT		SH
440	Physics Acc			EIT		SH
441	Physics II Acc			EIT		SH
626	Power Technology	AC		EIT		
558	Principles of Marketing	AC	BFIT	EIT	HS	
242	Psychology (CHS)	AC	BFIT	EIT	HS	SH

Course Number	Course	Pathways				
		Arts & Communication	Business, Finance, & Information Technology	Engineering & Industrial Technology	Human Services	Science & Health
167	Public Speaking	AC	BFIT	EIT	HS	SH
590	Retail Management	AC	BFIT		HS	
628	Robotics/CAM	AC		EIT		SH
180	SAT Prep					
248	Social Conflict	AC	BFIT	EIT	HS	SH
240	Sociology	AC	BFIT	EIT	HS	SH
510	Spanish I	AC				
511	Spanish II	AC				
512	Spanish III	AC				
514	Spanish V	AC				
710	Spring Concert Choir	AC				
701_2	Spring Symphonic Winds	AC				
350	Statistics (CHS)		BFIT	EIT	HS	SH
733	String Ensemble	AC				
207	Struggle & Triumph: History Through Sports	AC			HS	
320M	Trigonometry Accelerated			EIT		
714	Vocal Jazz Ensemble	AC				
466_1	Wilderness Science and Exploration					SH
613	Wood Production Systems	AC		EIT		
721	Woodwind Ensemble	AC				
216	WWII and the Greatest Generation	AC				
165	Yearbook	AC	BFIT			

AP COURSE OFFERINGS

Earn College Credit & Placement

AP courses can help you acquire the skills and habits you will need to be successful in college. You will improve your writing skills, sharpen your problem-solving abilities, and develop time management skills, discipline, and study habits. More than 90 percent of four-year colleges in the United States and colleges in more than 60 other countries give students credit, advanced placement or both on the basis of AP exam scores. By entering college with AP credits, you will have the time to move into upper level courses, pursue a double-major or study abroad.

AP Course Planning

Students who wish to take multiple AP courses must plan their course selections carefully. In order to achieve this goal, students will need to schedule multiple core courses in addition to AP courses concurrently, especially during their 11th and 12th grade year. The AP courses are conducted based on student interest. Students are encouraged to pick a focus area of interest and plan multiple courses as a two-year commitment. For example, if a student excels at science and math, they may want to schedule one or two AP courses in each of those disciplines each year. **Please note that it is highly unlikely a student will be able to schedule all AP course offerings prior to graduation.**

AP Capstone Program

The **AP Capstone Diploma** is granted to students who earn scores of 3 or higher in AP Seminar and AP Research and on 4 additional AP Exams of their choosing.

The **AP Seminar and Research Certificate** is granted to students who earn scores of 3 or higher in both AP Seminar and AP Research.

AP Courses	
AP Biology (CHS)	AP Pre-Calculus
AP Calculus AB (CHS)	AP Research
AP Calculus BC	AP Seminar
AP Chemistry (CHS)	AP Spanish Language and Culture
AP Computer Science Principles	AP US Government and Politics
AP English Language & Composition	AP US History
AP English Literature & Composition	AP World History
AP Environmental Science	

COLLEGE IN THE HIGH SCHOOL COURSE OFFERINGS

General McLane partners with colleges and universities to offer entry-level college courses taught by General McLane faculty in the General McLane High School building. Qualified students take college courses and pay a minimal fee for college credits. Students are responsible for providing a transcript to their attending colleges/universities.

AP Biology (CHS): Robert Morris University	AP Chemistry (CHS): Robert Morris University
AP Calculus AB (CHS): Robert Morris University	Statistics (CHS): Robert Morris University
Psychology (CHS): Robert Morris University	

DUAL ENROLLMENT

The Dual Enrollment program allows eligible students to apply for enrollment in college classes. By participating, these students are able to receive both high school elective credit and college credit for courses successfully completed. College credit is transferred at the discretion of the receiving university or college. Students cannot substitute Dual Enrollment Courses for core courses required for graduation from General McLane High School. Students will be financially responsible for the courses and additional costs associated with these courses.

Dual Enrollment courses are courses that are taken by high school students on college campuses such as Penn West Edinboro University. Students must apply and be accepted by the participating college. A number of criteria must be met to participate in Dual Enrollment. Please contact Dual Enrollment coordinator Mrs. Sarah Webb.

EDUCATION ACADEMY

Education Academy prepares high school juniors and seniors for careers in human services, specifically focusing on educational settings. Students will engage in professional development in areas such as professional learning and ethical practice, learner development and individual learning differences, and behavioral principles and management. Upon completing their professional development, students will volunteer in elementary and middle school classrooms, applying their learning and skills while working with diverse student populations.

AMERICORPS

The AmeriCorps Youth Program provides high school students with the opportunity to gain valuable experience working within the school district while earning a monetary stipend and a scholarship upon completion of the program. This initiative allows students to engage in meaningful service, such as providing academic support, mentoring younger students, and assisting with community projects. Participants must go through an application process to be considered. Once selected, they will commit to a set number of service hours, gaining hands-on experience while making a positive impact in our schools. This program is a great way for students to develop leadership skills, build their resumes, and earn financial support for their future education.

ERIE COUNTY TECHNICAL SCHOOL (ECTS)

The Erie County Technical School (ECTS) provides career and technical education for General McLane students. Students in grades 10 through 12, who are interested in a technical career, should see their school counselor for information concerning application and selection. A curriculum guide for ECTS is available in the school counseling office.

Students selected are enrolled in half-day attendance at ECTS and half-day at their home school. Transportation will be provided by the school district.

Many post-secondary institutions have articulation agreements with ECTS. These agreements allow our students guaranteed admission, advanced placement, or exemption from taking certain classes. Articulation agreements save students time and money for the work they completed in high school.

Technical Training Clusters: Art & Design for Business, Computer Networking, Computer Programming, Drafting & Design Engineering, Graphic Media & Design

Construction: Construction Trades, Facility Maintenance Technologies

Human Services: Cosmetology, Culinary, Baking & Pastry Arts, Early Childhood Education, Health Assistant, Hospitality Management & Tourism, Sports Therapy & Exercise Science, Emergency & Protective Services

Manufacturing: Electrical Engineering, Metal Fabrication, Precision Machining Technology

Transportation: Auto Body Repair, Automotive Technologies

COURSE SEQUENCING & CREDIT REQUIREMENTS

Credit requirements for an ECTS student must be met as follows:

- Once enrolled in ECTS, students earn 10.0 credits via ECTS and 14 credits via GMHS for a minimum total of 24.0 credits.
- AM ECTS students earn 4.0 credits in grade 10
- PM ECTS students earn 3.0 credits in grades 11 & 12
- Please note that if a student is placed in AM ECTS in grades 11 or 12, he/she will earn 4.0 credits that year via ECTS.

English:	4.0 credits
Math:	3.0 credits
Science:	3.0 credits
Soc. Studies:	2.0 credit
Physical Education:	2.0 credits
Elective/Fine Arts:	4.0 credits (minimum)

Students follow a regular 9th-grade schedule and then typically meet graduation requirements at GMHS as follows:

Grade 9		Grade 10		Grade 11		Grade 12	
English 9	1.0	English 10	1.0	English 11	1.0	English 12	1.0
U.S. History 1	1.0	Science	1.0	Mathematics	1.0	Government & Econ.	1.0
Science	1.0	Mathematics	1.0	U.S. History 2	1.0	Science	1.0
Mathematics	1.0	PE 10/DE	.50	Physical Ed/Health	.50	Physical Ed./Health	.50
PE/Health	.50	Elective	.50	Elective	.50	Elective	.50
Electives	3.5	ECTS Lab	4.0	ECTS Lab	4.0	ECTS Lab	4.0
TOTAL	8.0	TOTAL	8.0	TOTAL	8.0	TOTAL	8.0

McDowell Aerospace Science (AFJROTC)

The Air Force Junior ROTC (JROTC) at McDowell High School is an opportunity for students to develop leadership, followership and decision-making skills. **Enrollment in JROTC does NOT mean a commitment to, or even an interest in joining the military.**

The purpose is to teach both aerospace studies, military science, world events, as well as provide an opportunity to learn discipline, respect, teamwork, citizenship and leadership. In addition, AFJROTC offers extra-curricular activities such as Drill Team, Volleyball, Model Rocketry Club, Cyber Partiot, National Academic Quiz, Color Guard, and Rifle Team. Many students are members of one or even all of these groups, not because they are required, but because these activities are challenging, informative and fun.

Students from General McLane students will be transported to McDowell Intermediate High School for Aerospace Science coursework. Aerospace Science is divided into categories with Aerospace Science comprising 40% of the curriculum, Leadership Education 40%, and 20% is made up of physical wellness/PT. Students will be able to participate in JROTC one semester per year.

465_01 Aerospace Science 1

1.00 Credit

Prerequisite: The Ability to participate in marching and physical wellness/PT

This course is open to all students who have the ability to participate in physical wellness, marching, maneuvers, and carry a minimum overall 2.0 grade point average. The first year is a history course designed to acquaint the students with the historical development of flight and the role of the military in history. The leadership portion develops leadership skills and acquaints students with life skills such as discipline, leadership, citizenship, customs, and courtesies. Further leadership training encompasses communication skills, management studies, and basic marching skills. Students are exposed to numerous field trips and competitive drill meets. Aerospace Science is a pathway of civilian/military career exploration into the many different occupations that are available. Careers will be discussed and guest speakers will be invited in to speak of career opportunities.

465_02 Aerospace Science 2

1.00 Credit

Prerequisite: The Ability to participate in marching and physical wellness/PT and must have passed Aerospace Science 1

This course is open to all students who have successfully completed Aerospace Science 1 and its requirements. This year is a science course designed to acquaint the students with the Aerospace environment; the human requirements of flight, principles of aircraft flight, and principles of navigation. The leadership portion of the class stresses communication life skills and career opportunities. Written and oral communication requirements compliment academic materials. Cadet Corps activities include holding positions of greater responsibility in the planning and execution of Corps projects. Aerospace Science is a pathway of civilian/military career exploration into the many different occupations that are available. Careers will be discussed and guest speakers will be invited to speak of career opportunities.

465_03 Aerospace Science 3

1.00 Credit

Prerequisite: The Ability to participate in marching and physical wellness/PT and must have passed Aerospace Science 2 (SCIENCE CREDIT AWARDED IF REQUESTED)

This course is open to all Junior and Senior students with prior approval from JROTC staff. JROTC prefers successful AS-1 and AS-2 completion; however, staff will evaluate admittance on a case-by-case basis. The academic subject of this course is Global and Cultural Studies. Leadership classes stress communication and personal development and include actual experience in commanding the Cadet Corps and serving in support command and staff positions. The cadets assist in the planning and supervising of all cadet activities, physical wellness, and drill. Numerous community service opportunities and field trips enhance the classroom experience. One science credit may be awarded to students who successfully complete 3 credits of Aerospace Science. Aerospace Science continues to be a pathway of career exploration into the many different occupations that are available. Careers will be discussed and guest speakers will be invited to speak of career opportunities.

465_04 Aerospace Science 4

1.00 Credit

Prerequisite: The Ability to participate in marching and physical wellness/PT and must have passed Aerospace Science 3

This course is open to all Junior and Senior students with prior approval from JROTC staff. JROTC prefers successful AS-1 and AS-2 completion; however, staff will evaluate admittance on a case-by-case basis. The academic subject of this course is Global and Cultural Studies. Leadership classes stress communication and personal development and include actual experience in commanding the Cadet Corps and serving in support command and staff positions. The cadets assist in the planning and supervising of all cadet activities, physical wellness, and drill. Numerous community service opportunities and field trips enhance the classroom experience. Aerospace Science continues to be a pathway of career exploration into the many different occupations that are available. Careers will be discussed and guest speakers will be invited to speak of career opportunities. One science credit may be awarded to students who successfully complete 3 credits of Aerospace Science.

In addition to the course, cadets must meet the additional requirements.

- Cadets are required to participate in the homecoming parade, McDowell Drill Competition, Dining Out, and the Annual Superintendent's Review.
- Cadets must, at all times, maintain acceptable personal appearance and high academic standards. This includes wearing the JROTC Uniform and participating in four community service events per quarter.
- Three incidents of in school suspension (ISS) or out-of-school suspension (OSS) may result in involuntary dismissal from JROTC. If dismissed from or receiving a final grade of "F" students cannot re-enroll in any JROTC Class.
- Failure to wear the uniform will result in a contract violation and could lead to involuntary dismissal from JROTC.
- Failure in any GMHS Classes precludes involvement in any out-of school field trips.
- Failure to turn in assigned JROTC projects will result in a contract violation and could lead to involuntary dismissal from JROTC.

NON-TRADITIONAL COURSES

NON-INSTRUCTIONAL PERIODS

Non instructional periods are of two basic types. These include: student apprentice periods and release periods. Seniors may participate in a student apprentice of those two options for a maximum of two (2) scheduling units. Juniors may participate in one (1) scheduling unit of a student apprentice period. No academic credit will be given for release periods.

Student Apprentice (Course 770)

Credit .25

Students working with teachers may be involved in any of the following areas: tutoring, correcting objective tests, making bulletin boards and displays, typing and routine clerical tasks. Students working in the office will be assigned one or more of the following duties: typing, filing, answering the telephone, running photocopies, delivering messages to teachers, distributing the daily attendance report, and helping with routine clerical tasks.

Release Period (Course 671, 672, 673, 674):

No credit course

Seniors may request early release a maximum of **two terms** provided they:

- Are registered for all required graduation credits
- Have written permission of a parent or guardian
- Do not owe obligations to the school

Release students must agree to not be in the school building during the release time without prior permission from an administrator and follow the school schedule on early dismissal days, activity period days, etc. Students will not be granted release unless they have earned, or have the potential to earn, enough credits for a diploma.

Independent Study (Course 075)

Any student interested in scheduling an independent study must obtain an approval form in the school counseling office.

NCAA: PLANNING ON COLLEGE ATHLETIC CAREER

Qualifying for athletic financial aid and participation at specific colleges (determined by Division status) depends on completion of a NCAA prescribed core of courses beginning in grade 9, as noted in the annual sports physical packet. Students' high school grade point average along with standardized test scores (SAT and/or ACT) will also determine one's qualifying status. When you register for the SAT/ACT, you must request through your online registration account to have your SAT/ACT test scores sent directly to NCAA (The code is 9999).

The NCAA Clearinghouse form should be filed after the completion of the student's junior year. Seniors must be certified with the NCAA Clearinghouse to be qualified with a specific college. Final qualifying status occurs upon graduation. Detailed and updated information on applying for certification with the NCAA Clearinghouse is available on the [NCAA website](#).

PROGRAM OF STUDY

ART				
<i>Course No.</i>	<i>Subject</i>	<i>Weighted</i>	<i>Grade(s)</i>	<i>Credit</i>
755	Art Introduction		9, 10, 11, 12	0.5
752	Artistic Metalsmithing		9, 10, 11, 12	0.5
750	Ceramics		9, 10, 11, 12	0.5
742	Drawing I		9, 10, 11, 12	0.5
744	Drawing II		10, 11, 12	0.5
758	Graphic Design- Illustration		9, 10, 11, 12	0.5
759	Graphic Design- Photoshop		9, 10, 11, 12	0.5
757	Graphic Design II		9, 10, 11, 12	0.5
758_1	Hand Lettering and Illustration		9, 10, 11, 12	0.5
741	Painting I		9, 10, 11, 12	0.5
745	Painting II		9, 10, 11, 12	0.5
746	Photography I		9, 10, 11, 12	0.5
747	Photography II		10, 11, 12	0.5
165	Yearbook		10, 11, 12	1.0
BUSINESS/TECHNOLOGY				
<i>Course No.</i>	<i>Subject</i>	<i>Weighted</i>	<i>Grade(s)</i>	<i>Credit</i>
580	Accounting 1		10, 11, 12	0.5
559	Business Publications		9, 10, 11, 12	0.5
582	Introduction to Accounting		9, 10, 11, 12	0.5
593	Introduction to Business		9, 10, 11, 12	0.5
557	Microsoft Office Applications		9, 10, 11, 12	0.5
597	Personal Finance		11	0.5
558	Principles of Marketing		9, 10, 11, 12	0.5
590	Retail Management		9, 10, 11, 12	0.5
50	Study Skills		9, 10, 11, 12	0.5
COMPUTER SCIENCE				
<i>Course No.</i>	<i>Subject</i>	<i>Weighted</i>	<i>Grade(s)</i>	<i>Credit</i>
338	AP Computer Science Principles	1.2	10, 11, 12	0.5
360	Coding I		9, 10, 11, 12	0.5
364	Computer Animation		9, 10, 11, 12	0.5
480	Drones I		10, 11, 12	0.5
758	Graphic Design-Illustration		9, 10, 11, 12	0.5
759	Graphic Design-Photoshop		9, 10, 11, 12	0.5
757	Graphic Design II		9, 10, 11, 12	0.5
ENGLISH				
<i>Course No.</i>	<i>Subject</i>	<i>Weighted</i>	<i>Grade(s)</i>	<i>Credit</i>
173_01	AP English Literature & Composition	1.2	11, 12	1.0
128	AP English Language & Composition	1.2	11, 12	1.0
160	AP Research	1.2	11,12	2.0

174	AP Seminar	1.2	10,11,12	1.5
169	Creative Writing		9, 10, 11, 12	0.5
102E	English 9		9	1.0
101	English 9 Advanced		9	1.0
100	English 9 Accelerated	1.2	9	1.0
112E	English 10		10	1.0
111	English 10 Advanced		10	1.0
110	English 10 Accelerated	1.2	10	1.0
122E	English 11		11	1.0
121	English 11 Advanced		11	1.0
132E	English 12		12	1.0
131	English 12 Advanced		12	1.0
167	Public Speaking		9, 10, 11, 12	0.5
175	The Graphic Novel		9,10, 11, 12	0.5
FAMILY & CONSUMER SCIENCE				
Course No.	Subject	Weighted	Grade(s)	Credit
680	Child Development		9, 10, 11, 12	0.5
640	Culinary Arts I		9,10, 11, 12	0.5
641	Culinary Arts II		10, 11, 12	0.5
645	Lifetime Nutrition		9, 10, 11, 12	0.5
157	Future Ready		11, 12	0.5
HEALTH & PHYSICAL EDUCATION				
Course No.	Subject	Weighted	Grade(s)	Credit
831	Adaptive PE		9, 10, 11, 12	0.5
870	Drivers Education		10	0.25
836	Fitness & Weight Training		9, 10, 11, 12	0.5
800	Health 9		9	0.25
821	Health 11		11	0.25
824	Health 12		12	0.25
781	Lifetime Fitness		9,10,11,12	0.5
780	Lifetime Health		11,12	0.5
799	Physical Education 9		9	0.25
810	Physical Education 10		10	0.25
820	Physical Education 11		11	0.25
830	Physical Education 12		12	0.25
813	Recreational Sports		9, 10, 11, 12	0.5
MATHEMATICS				
Course No.	Subject	Weighted	Grade(s)	Credit
301	Algebra I		9, 10, 11, 12	1.0
311	Algebra II		9, 10, 11, 12	1.0
300	Algebra II Accelerated	1.2	9, 10, 11, 12	1.0
334_01	AP Calculus AB (CHS)	1.2	11, 12	1.0
334_02	AP Calculus BC	1.2	11, 12	1.0

334_03	AP Pre-Calculus	1.2	11, 12	1.0
351	Applied Algebra Part I		9, 10	1.0
352	Applied Algebra Part II		9, 10, 11, 12	1.0
397	Applied Personal Finance		11,12	1.0
321	Geometry		9, 10, 11, 12	1.0
310	Geometry Accelerated	1.2	9, 10, 11, 12	1.0
336	Math K'NEXtions		10, 11, 12	0.5
350	Statistics (CHS)	1.2	11,12	1.0
MUSIC				
Course No.	Subject	Weighted	Grade(s)	Credit
168	Acting & Set Design		9, 10, 11, 12	0.5
722	Brass Ensemble		9, 10, 11, 12	0.5
730	Broadway Dinner Choir		9, 10	0.5
704_2	Digital Music Creation		9, 10, 11, 12	0.5
725	GM Jazz Big Band		10, 11, 12	0.5
738	Guitar Ensemble		9, 10, 11, 12	0.5
732_3	History of Musical Theater		9, 10, 11, 12	0.5
732_2	History of Popular Music		9, 10, 11, 12	0.5
734	Holiday Choir		9, 10	0.5
701_1	Holiday Symphonic Winds		9, 10, 11, 12	0.5
739	Introduction to Piano		9, 10, 11, 12	0.5
718	Jazz Improvisation I		9, 10, 11, 12	0.5
700	Marching Band		9, 10, 11, 12	0.5
706	Music Theory		10, 11, 12	0.5
720	Percussion Ensemble		9, 10, 11, 12	0.5
710	Spring Concert Choir		9, 10, 11, 12	0.5
701_2	Spring Symphonic Winds		9, 10, 11, 12	0.5
714	Vocal Jazz Ensemble		9, 10, 11, 12	0.5
721	Woodwind Ensemble		9, 10, 11, 12	0.5
SCIENCE				
Course No.	Subject	Weighted	Grade(s)	Credit
450	Anatomy	1.2	11, 12	1.0
429_01	AP Biology (CHS)	1.2	11, 12	1.0
420_01	AP Chemistry (CHS)	1.2	11, 12	1.0
4011	AP Environmental Science	1.2	11, 12	1.0
464	Applications of Science		11, 12	1.0
460	Astrophysics		10, 11, 12	0.5
411	Biology		10, 11, 12	1.0
400	Biology Accelerated	1.2	9, 10	1.0
421	Chemistry		10, 11, 12	1.0
410	Chemistry Accelerated	1.2	10, 11, 12	1.0
437	Integrated Science		9	1.0
462	Nuclear Physics		11, 12	0.5
433	Physics		11, 12	1.0

440	Physics Accelerated	1.2	11, 12	1.0
441	Physics II Accelerated	1.2	11,12	1.0
466_1	Wilderness Science Exploration		9,10,11,12	.5
SOCIAL STUDIES				
Course No.	Subject	Weighted	Grade(s)	Credit
231_01	AP US History	1.2	11, 12	1.0
229	AP US Government & Politics	1.2	11	1.0
232	AP World History	1.2	10,11,12	1.0
226	Government & Economics		11	1.0
241	Current Affairs		11	0.5
242	Psychology (CHS)	1.2	11, 12	1
248	Social Conflict		11, 12	0.5
240	Sociology		10, 11, 12	0.5
207	Struggle & Triumph: History Through Sports		9,10, 11, 12	0.5
212	US History I		9	1.0
214	US History I Accelerated	1.2	9	1.0
213	US History II		10	1.0
215	US History II Accelerated	1.2	10	1.0
216	WWII and the Greatest Generation		10, 11,12	0.5
TECHNOLOGY EDUCATION				
Course No.	Subject	Weighted	Grade(s)	Credit
634	Architectural Design I		9, 10, 11, 12	0.5
638	Architectural Design II		9, 10, 11, 12	0.5
635	Engineering Design I		9, 10, 11, 12	0.5
636	Engineering Design II		9, 10, 11, 12	0.5
628	Robotics & CNC Technology		10,11, 12	0.5
349	Computer Animation		9, 10, 11, 12	0.5
601	Home Maintenance		9, 10, 11, 12	0.5
610	Introduction to Metal Materials and Processes		9, 10, 11, 12	0.5
600	Introduction to Wood Materials and Processes		9, 10, 11, 12	0.5
163	Media Arts		9, 10, 11, 12	0.5
626	Power Technology		9, 10, 11, 12	0.5
612	Metal Production Systems		10, 11, 12	0.5
613	Wood Production Systems		10, 11, 12	0.5
WORLD LANGUAGES				
Course No.	Subject	Weighted	Grade(s)	Credit
548	Introduction to World Language & Culture		9, 10, 11, 12	0.5
510	Spanish I		9, 10, 11, 12	1.0
511	Spanish II		9, 10, 11, 12	1.0
512	Spanish III		10, 11, 12	1.0
514	Spanish V		11, 12	1.0
515_01	AP Spanish Language & Culture	1.2	11, 12	1.0

Art

755 **Art Introduction**

Grades 9 - 12

Credit: 0.5

The Art Introduction class is taught as a survey course. Students will study and gain experience in art criticism, art history and art production. In the area of production, students will work in drawing, design, painting, and sculpture. Students will critique artwork and discuss aesthetic and historic merits Individually and in group settings. Students will practice studio techniques while creating original works in each of the media areas listed above. Students may have occasional homework assignments.

752 **Artistic Metalsmithing**

Grades 9 - 12

Credit: 0.5

Prerequisite: Art Introduction or Hand Lettering & Illustration

Introduction of basic metalsmithing and jewelry design techniques. Students will work hands-on on a series of projects to develop 3-D design skills and to create works that express individual ideas. Emphasis will be on metalsmithing as an art medium. Students will study metalsmithing techniques to create fine art jewelry and metal sculpture. This course covers metalsmithing processes, materials, tools and equipment, as well as historic and contemporary jewelry design. Topics include sawing, cold connecting sheet metal, stone setting, enameling, soldering, casting, craftsmanship, and studio safety.

750 **Ceramics**

Grades 9 - 12

Credit: 0.5

Prerequisite: Art Introduction or Hand Lettering & Illustration

This course will serve as an introduction to the process of working in clay. Hand building techniques including coil, slab and slip cast as well as additive and/or subtractive sculptural techniques will be explored. Attention to detail, craftsmanship and a serious dedication to the art process is expected.

742 **Drawing I**

Grades 9 - 12

Credit: 0.5

Prerequisite: Art Introduction or Hand Lettering & Illustration

Drawing I is designed to improve student drawing techniques, as well as teach students how to compose original works of art. Emphasis is placed on the process of seeing (visualization), the Elements and Principles of Art, different drawing media and application techniques. Attention to detail, craftsmanship, and a serious dedication to the art process is expected. Students are also required to have a sketchbook for the course.

744 **Drawing II**

Grades 10 - 12

Credit: 0.5

Prerequisite: Drawing I

A course that extends the concepts and techniques covered in Drawing I. Extensive study of formal compositional principles: balance, unity, variety, rhythm, and movement will be explored. Creative application of materials and techniques will be employed in the creation of more in depth illustrative projects. Attention to detail, craftsmanship, and a serious dedication to the art process is expected. Students are also required to have a sketchbook for the course.

758 **Graphic Design - Illustration**

Grades 9 - 12

Credit: 0.5

Digital Art Illustration. Students learn how to use the tools to create digital artwork that can be used in web design, print media, and digital screen design. In this Illustration course, it will concentrate on the high-end capabilities of Adobe software as an illustration, design and vector drawing tool. Students will learn how to use the software: Adobe Illustrator & Adobe Fresco to create high quality illustrations, logos, and other custom artwork. This digital illustration course gives students an overview of how computer software is used in illustrations. A variety of imaging programs are discussed, and students learn how to digitally create vector images, apply colors, use textures and take advantage of the flexibility associated with computers. Instruction takes place primarily through class projects and demonstrations. It is recommended that you also sign up for the course Graphic Design Photoshop to complete the understanding of Graphic Design. Students will need to successfully complete this course and Graphic Design Photoshop as a prerequisite for Graphic Design II.

759 **Graphic Design - Photoshop**
Credit: 0.5

Grades 9 - 12

Digital Art in Photoshop. This course is an art course that concentrates on the high-end capabilities of Adobe Photoshop as an illustration, design and photo retouching tool. Students explore a wide range of selection and manipulation techniques that can be applied to photos and graphics. Students in this course will also explore color theory, digital painting. It is recommended that you also sign up for the course Graphic Design Illustration to complete the understanding of Graphic Design. Students will need to successfully complete this course and Graphic Design Illustration as a prerequisite for Graphic Design II.

757 **Graphic Design II**
Credit: 0.5

Grades 9 - 12

Prerequisite: Graphic Design-Illustration & Graphic Design- Photoshop

Advanced Digital Art. This course is a continuation of concepts learned in Graphic Design-Photoshop & Graphic Design-Illustration. Applying basic design concepts to the presentation of informative or persuasive material, students will develop their craft in practicing effective visual communication. The course emphasizes practical assignments that examine applied problem solving and professional solutions for graphic designers.

758_1 **Hand Lettering & Illustration**
Credit: 0.5

Grades 9 - 12

This course is designed to show students how to create and design like an illustrator while incorporating hand-lettering techniques. Illustration is a fancy name for commercial art such as a book, greeting card, magazine, advertising, product packaging, or branding. Hand-lettering refers to the art of drawing letters by hand. This course will combine illustration and hand-lettering to help students define their personal style by having choice over which projects they wish to create. They will also participate in creativity-boosting drawing exercises that will help hone a student's style through exploring a myriad of different art materials, techniques, and equipment such as painting with inks, creating in virtual reality, and printmaking. This class is designed for the student who wants to see their creativity be pushed, to learn what it looks like to be a working illustrator, and to explore new ways of creating art through experimentation.

741 **Painting I**
Credit: 0.5

Grades 9 - 12

Prerequisite: Art Introduction or Hand Lettering & Illustration

This course will place emphasis on color dynamics through the study of various color relationships beyond those already learned in Art Introduction. Brush stroke techniques and blending color to create form and depth will be emphasized and practiced. Students are encouraged to carefully plan each project through sketching and experimentation with color. Skills learned in Art Introduction are essential to the success of this course. Attention to detail, craftsmanship and a serious dedication to the art process is expected.

745 **Painting II**
Credit: 0.5

Grades 9 - 12

Prerequisite: Painting I

A course that extends the concepts and techniques covered in Painting I. It incorporates various paint application techniques while focusing on compositional organization. Students will be exposed to numerous styles and approaches to historical and contemporary painting. Attention to detail, craftsmanship and a serious dedication to the art process is expected.

746 Photography I

Grades 9 - 12

Credit: 0.5

This photography course introduces students to photography through a combination of lectures, demonstrations, assignments, and critiques. Students will learn to see photographically via an exploration of the basic tools, techniques and aesthetics of photography, with an emphasis on the creative use of camera controls, this course will also introduce students to the digital darkroom post processing of digital captures. Methods of transferring files from camera to computer, basic digital asset management, image editing tools using Adobe Lightroom and Photoshop, optimizing files for print and screen, image sharpening, proper understanding of black and white tonal scale, methods of color photography. All photography is completed in natural light during the daylight after school hours. During the in-person class time, students will work in the digital dark room to process photos & learn about new photography concepts. Students must own a digital camera for this course, not a phone camera. The digital camera must be at least 10mp and have at least a 10x optical (not digital) zoom. Printing is included. *\$20.00 lab fee.*

746 Photography II

Grades 10 - 12

Credit: 0.5

Prerequisite: Photography I

This DSLR photography course is a level 2 course for students who have successfully completed photography 1. Photography will be taught through a combination of lectures, demonstrations, assignments, and critiques. Students will pair seeing photographically with the more technical side of operating a DSLR camera. This course will be an exploration of camera controls, such as aperture, shutter speed and ISO (exposure) and focusing techniques. The class will have in-person photography lab assignments each week. Photography Photoshoot assignments will also be completed in natural light during the daylight after school hours. During the in-person class time, students will work in the lab and in the digital dark room to process photos in Adobe Lightroom and Adobe Photoshop. Students must own a DSLR camera for this course. The DSLR camera will need: MANUAL mode, any lens will be satisfactory. The camera must be at least 10mp. Printing is included. *Required \$20.00 lab fee.*

165 Yearbook

Grades 10 - 12

Credit: 1.0

Prerequisite: "A" or "B" in last completed English course.

Yearbook is an in-depth study of all the skills needed to produce a professional journalistic-style publication. Strong emphasis is placed on writing copy, photo captions and headlines. Page design, layout, photo cropping, scheduling and financing are explored, mastered and applied to the production of the Emperor, the General McLane High School Yearbook. Because time demands exceed the classroom hours allotted, interested students should contact the teacher for schedule details. Evaluation is based on copy submissions, page designs, participation in advertising and book sales campaigns, and the ability to meet deadlines.

Business/Technology

- 580 **Accounting I** Grade 10 - 12
Credit: 0.5
Prerequisite: Introduction to Accounting
This is an accounting course where students will learn the concepts and procedures used to keep the financial records for a merchandising business organized as a corporation. Students will learn accounting principles that apply to payroll, taxes, and other special procedures. Students will use both general and special journals.
- 559 **Business Publications** Grades 9 - 12
Credit: 0.5
In this hands-on course students will produce our school newspaper, the Lancer Ledger. This course combines the fundamental elements of journalism concepts, business aspects of newspaper production, and desktop publishing with essential design basics to give students an authentic experience in the field of journalism. While engaging as staff writers and participating in the editorial aspects of newspaper production, students will explore various styles and techniques of journalistic craft. Students will develop business and marketing strategies appropriate for newspaper circulation, advertising, and budgeting including the use of social media as a marketing tool. Students will learn to use the robust, industry-standard software, Adobe InDesign to create visually enticing print media, and will learn to maintain a WordPress-based website. Students taking this class should have a high level of maturity and an interest in writing articles for student publications.
- 557 **Microsoft Office Applications** Grade 9 - 12
Credit: 0.5
This course will help students learn essential software applications and technology skills for personal, academic, and professional success and help increase their productivity. Word processing and desktop publishing applications will be used to create, edit, manipulate, and format personal, academic, and business documents. Students will create a digital presentation which includes appropriate text formatting, graphics, animation, and public speaking skills. Formulas will be used in spreadsheet applications to solve mathematical problems and evaluate investments and loans and a variety of charts will be created.
- 582 **Introduction to Accounting** Grade 9 - 12
Credit: 0.5
This is an introductory accounting course where students will learn the concepts and procedures used to keep the financial records for a proprietorship.. Basic principles learned can also be applied to various personal finances. It is highly recommended that students planning to major in any business or business-related major in college take Intro to Accounting, as Accounting is a required course for all college business majors.
- 593 **Introduction to Business** Grade 9 - 12
Credit: 0.5
This course provides opportunities to learn and experience a variety of topics in the field of business. Students will use an online simulation to invest in the stock market and learn about stocks, bonds, mutual funds, and help prepare them for financially independent futures. Types of businesses, business in a global economy, and business management will be covered. Students will examine the fundamental principles of entrepreneurship and small business, the characteristics of an entrepreneur, and how to identify business opportunities. Students will use an online simulation to run a retail business, explore the operational aspects of starting a business, and write a business plan. Students will be researching, problem-solving, collaborating, and presenting throughout the course.
- 590 **Retail Management** Grades 9 - 12
Credit: 0.5
This course applies classroom theory to the actual operation of the school's student store. Students assume full responsibility for the entire operation of the store - advertising and promotions, accounting, merchandising, inventory, pricing, purchasing, scheduling, and selling.

597 **Personal Finance**

Grade 11

Credit: 0.5

The goal of this course is to address the PA Academic Standards for Financial Literacy. Students should receive a solid foundation in financial literacy to live independent financial lives as adults in these areas: Income, Spending, Budgeting, Credit, Financial Services, Saving & Investing, and Risk & Insurance.

558 **Principles of Marketing**

Grades 9 - 12

Credit: 0.5

In today's rapidly-evolving media landscape, social media has not only become a fundamental tool for communication, but a must-have skill in a multitude of industries. In this class, students will be introduced to marketing and its essential role in the operation of a business and in our economy. They will gain insight into the functions of marketing and will be introduced to basic marketing concepts including the marketing mix and target marketing. They will then dive into the role of social media in marketing communications, learning how to use social media and content marketing to grow a business and engage with customers. **Students taking this course must have access to a smartphone** as they will be learning to create a social media presence for businesses using popular outlets such as Facebook, Twitter, Snapchat, Pinterest, You Tube, Instagram, etc.

050 **Study Skills**

Grades 9 - 12

Credit: 0.5

Study Skills is a course designed to help students acquire the necessary "student skills" to become successful in school and later in the workplace. Topics include goal setting; time management; effective study environment, learning styles; effective note taking, test preparation, and memory devices.

Computer Science

- 338 **AP Computer Science Principles** Grades 10 - 12
Credit: 0.5
AP Computer Science Principles is a semester course designed to introduce new and experienced programmers to all aspects of app development while helping prepare them for the AP Computer Science Principles exam. Students choose any language and complete a self-paced curriculum that involves creating apps and other programs, along with learning various aspects of computer science.
- 360 **Coding I** Grades 9 - 12
Credit: 0.5
Earn a certification in web development by completing tutorials and projects by using HTML and CSS. By the end of the course, you will be able to create various web apps that can be accessed from any device, including a personal portfolio page that can showcase your skills in coding.
- 349 **Computer Animation** Grades 9 - 12
Credit: 0.5
Students will use a professional computer animation tool to study two-dimensional animation as it pertains to web development. The animation will be used to enhance the content and design of a web page.
- 480 **Drone I** Grades 11-12
Credit: 0.5
Prerequisite: Algebra I
Drone I is a course designed to explore a variety of subjects as they relate to drones. This course will include elements of the following topics: Safety, Battery Chargers and Connectors. Design and Documentation, Drone Overview and Flight Basics, Common Sense Flying, Fundamentals of Flight, FAA Regulations, Beginning Flight Skills, Transmitters and Receivers, Propellers, Drone Maintenance and Battery Care. While using a real toy drone a student will then learn the basic principles of aerodynamics.
- 758 **Graphic Design- Illustration** Grades 9 - 12
Credit: 0.5
Digital Art Illustration. In this course students will use Adobe Illustrator to create digital art Illustrations. Classes are designed to give students an understanding of composition, color, design graphics, product design, logo design, typography, character design, poster design, and how to draw digitally using vector based graphics. Students will need to take both this course along with Graphic Design-Photoshop to be eligible for the Graphic Design II course. Art Introduction is recommended prior to taking this course, but not required.
- 759 **Graphic Design- Photoshop** Grades 9 - 12
Credit: 0.5
This course is an introduction to art in the digital world. Students will learn how to create digital artwork using the graphic design industry standard program Adobe Photoshop. Students will learn to manipulate photographs as well as create digital photographic artwork. Classes are designed to give students an understanding of color, design, and digital painting. This course recommends that students have a digital camera: 10.0 megapixels, 3x optical zoom or higher or students may use the school issued iPad (iPad photos will not capture the same quality as an actual camera) to capture photos for the assignments. Students will need to take both this course along with Graphic Design-Illustration to be eligible for the Graphic Design II course. Art Introduction is recommended prior to taking this course, but not required.
- 757 **Graphic Design II** Grades 9 - 12
Credit: 0.5
Prerequisite: Graphic Design- Illustration & Graphic Design- Photoshop
This course is a continuation of the concepts learned in Graphic Designed I. Students will take their digital art creation to the more advanced level. More independent/creative projects will be encouraged. This course recommends that students have a digital camera: 10.0 megapixels, 3x optical zoom or higher.

English

128 AP Language & Composition

Grade 12

Credit: 1.0

Prerequisite: English 10 Accelerated and proficient or advanced score on the Keystone.

Students moving from English 11 Advanced must have earned an “A” or “B” in the course.

AP English Language and Composition is an introductory college-level composition course. Students cultivate their understanding of non-fiction writing and rhetorical arguments through reading, analyzing, and writing texts as they explore topics like rhetorical situations, claims and evidence, reasoning and organization, and style. This course continues to improve upon writing skills previously taught in other accelerated courses. In addition to the non-fiction texts, students will continue to read classic novels, which may include *Frankenstein*, *Wuthering Heights*, *Grendel*, *Hamlet*, *The Brothers Karamazov*, *The Hitchhiker's Guide to the Galaxy*, *Appointment with Death*. Students will be required to complete a summer reading project.

173_01 AP Literature & Composition

Grade 11

Credit: 1.0

Prerequisite: English 10 Accelerated and proficient or advanced score on the Keystone. Students moving from English 11 Advanced must have earned an “A” or “B” in the course.

AP Literature and Composition is a literature driven writing intensive course designed to both meet the curricular requirements detailed in the AP English Literature and Composition course description and prepare students for the AP English Literature & Composition test. Literature: Students will read, respond to, analyze, interpret, and evaluate works of American literature from using a variety of critical approaches, all based on a close reading of the text. Our primary approach will be formal, considering ways literary structures, elements, and techniques work to convey themes. We will also consider literature in its social and historical context by considering ways it reflects the human experience within a larger process of change. Nonfiction works will also be included as part of the course. We will also frequently write timed, in-class explications similar to the free response items on the AP exam. The course also includes a research paper, an ongoing vocabulary program, a review of traditional grammar and usage, and revision and editing activities addressing style and tone in the development of student essays. Novel units, including a summer reading unit, may include: *The Scarlet Letter*, *The Crucible*, *The Red Badge of Courage*, *Of Mice and Men*, *The Great Gatsby*, and *The Catcher in the Rye*.

160 AP Research

Grades 11 - 12

Credit: 2.0

Prerequisite: AP Seminar

AP Research, the second course in the AP Capstone experience, allows students to deeply explore an academic topic, problem, issue, or idea of individual interest. Students design, plan, and implement a yearlong investigation to address a research question. Through this inquiry, they further the skills they acquired in the AP Seminar course by learning research methodology, employing ethical research practices, and accessing, analyzing, and synthesizing information. Students reflect on their skill development, document their processes, and curate the artifacts of their scholarly work through a process and reflection portfolio. The course culminates in an academic paper of 4,000–5,000 words (accompanied by a performance, exhibit, or product where applicable) and a presentation with an oral defense. The class guiding text—*Research Methods: The Basics*—will be assigned for summer reading in addition to short summer assignments to brainstorm possible research topics.

174 AP Seminar

Grades 10 - 12

Credit: 1.5

AP Seminar is an interdisciplinary course that challenges students to explore complex real-world issues through research, analysis, and collaborative inquiry. Students examine a variety of texts—including articles, data, speeches, and multimedia—to evaluate arguments and perspectives. The course emphasizes critical thinking, effective communication, and the ability to synthesize information from multiple sources. Through individual and team projects, students develop and present research-based arguments in both written and oral formats. AP Seminar also prepares students for college-level work by strengthening their skills in academic research, citation, and formal presentation.

169 Creative Writing

Grades 9 - 12

Credit: 0.5

This course is an introduction to creative writing. Students will be given the opportunity to experiment with a variety of forms, understanding that the creativity lies as much in the arrangement of the words, sentences, and paragraphs, as it does in the metaphors, the details, and the descriptions that they bring to the page. There will also be a strong focus on revision. Throughout the class, students will revise and polish works in preparation for a final portfolio. Assessment will be based primarily upon this final portfolio, though the students will also complete exercises and analyses throughout the course.

102E English 9

Grade 9

Credit: 1.0

In this course, students use the reading curriculum “Read 180.” Read 180 is a blended learning intervention program building reading comprehension, academic vocabulary, and writing skills. The class allows for each student to work from a more individualized curriculum that meets each individual student’s needs. There is a software (iPad) component, independent reading component that allows students to self-select books of interest and individual level, and small group component that focuses on vocabulary, reading comprehension, and writing. Novels include *The Book Thief* along with leveled novels.

101 English 9 Advanced

Grade 9

Credit: 1.0

This course is a more intensive study of literature including short stories, novels, nonfiction, poetry, vocabulary, grammar, and essay development. Mastery of the parts of speech, mechanics of writing and paragraph writing is expected at this level. Research will focus on developing an outline to arrange, map out, and ensure flow of points that support a thesis while identifying gaps in information. Composition will be in the informative, reflective, and persuasive modes. The advanced course is designed to develop the skills necessary for college. Reading List may include: *The Tragedy of Romeo and Juliet*, *The Secret Life of Bees*, *To Kill a Mockingbird*, *Born a Crime*.

100 English 9 Accelerated

Grade 9

Credit: 1.0

English 9 Accelerated is a rigorous course designed to introduce students to literary analysis. The student will be challenged to develop skills to read, analyze and interpret a variety of literary selections from different genres. Composition study will focus on writing in a variety of discourses: narrative, informational, and persuasive. Students will also be required to master the foundational skills of writing a research paper outline. This course will continue student’s progress in the study of grammar, usage, & vocabulary. The accelerated class is designed to prepare students for advanced placement testing in their senior year. Novel units, including a summer reading unit, may include: *The Tragedy of Romeo and Juliet*, *To Kill a Mockingbird*, and *The Narrative Life of Frederick Douglass*, *The Secret Life of Bees*, *Fahrenheit 451*, *Born a Crime*

- 112E **English 10** Grade 10
Credit: 1.0
Prerequisite: English 9
English 10 develops students' reading, writing, and critical thinking skills through a diverse range of literary genres. Students will explore short stories, drama, a novel, and poetry, with selections that may include mythological tales, *A Midsummer Night's Dream*, *A Monster Calls*, and a variety of poetic works. In addition to whole-class texts, students will engage in an independent reading selection to foster personal interest and analytical growth. The course emphasizes vocabulary development, grammar proficiency, and structured writing across multiple forms, including persuasive and creative pieces. Instruction and practice are designed to strengthen comprehension and literary analysis skills, preparing students for success on the Literature Keystone Exam.
- 111 **English 10 Advanced** Grade 10
Credit: 1.0
Prerequisite: English 9
English 10 Advanced allows a student to further develop writing, research and literature skills. Students explore world literature in thematic units. The purpose of the class is to build the students' abilities to identify the themes and other literary devices used in poetry, dramas, short stories, and novels and to apply these skills in their own writing assignments and speeches. Students will also write a content-related research paper. The Advanced courses are designed to develop the skills necessary for college. Reading List (of major works) may include: *Lord of the Flies*, *Oedipus Rex/Macbeth*, and two independent reading texts.
- 110 **English 10 Accelerated** Grade 10
Credit: 1.0
Prerequisite: English 9
English 10 Accelerated is a rigorous study of major world authors and thinking and writing skills. Its purpose is to build students' ability to identify the themes of dramas, short stories, essays, and novels to develop logically their own themes in writing assignments and speeches. Students will also write a research paper. Accelerated classes are designed to prepare students for Advanced Placement testing in their junior and senior year. Novel units, including a summer reading unit, may include: *Macbeth*, *Night*, *Lord of the Flies*, and two student-choice world classics.
- 122E **English 11** Grade 11
Credit: 1.0
Prerequisite: English 10
English 11 Academic traces the development of American literature from the colonial period to the present. The students will examine the values, conflicts, and ideas within the literature that are uniquely American, and through this examination, discover that American literature is often a reflection of its political and historical geographic climate. The class will have a strong focus on writing. Students will create focused compositions that include specific, substantial, and sophisticated content. At times, they will be asked to apply ideas from the literature to their own lives. Students will also demonstrate an understanding of purpose and audience and adjust their style accordingly. Ultimately, the course is designed to develop critical thinking skills necessary for technical school, or the workplace. In addition to readings from the anthology, students will read contemporary nonfiction selections, as well as the following: *The Scarlet Letter*, *The Great Gatsby*, and *Of Mice and Men*.
- 121 **English 11 Advanced** Grade 11
Credit: 1.0
Prerequisite: English 10
English 11 Advanced will explore and evaluate the progression of American literary history from 1620 to the Modern Era. This investigation into historical literature will reveal the attitudes, beliefs, and values of those Americans that came before us. It will allow us to compare the way they lived to the way we currently exist in America. Additionally, the course will offer an in-depth examination of the research and formal writing process where students will produce a research-based essay and project that fits the thematic topics of the course.

132 **English 12**

Grade 12

Credit: 1.0

Prerequisite: English 11

English 12 chronologically examines world literature that ranges between the Anglo-Saxon Time Period and the modern day. Students will read the abridged versions of classical texts and look for thematic, relevant connections using a mix of project-based activities and traditional assessments. Additionally, the development of vocabulary and application of everyday writing skills are both central focuses.

121 **English 12 Advanced**

Grade 12

Credit: 1.0

Prerequisite: English 11 Advanced & proficient or advanced score on Keystone. Students moving up from English 11 must have earned an “A” or “B” in the course.

English 12 Advanced is a literature driven, writing intensive course designed to both familiarize students with the central themes at work in the development of British literature and prepare students for the demands of academic writing. The course requires that students complete daily reading assignments. Students will also frequently be called upon to write about the literature they read--both formally in essays and informally. Finally, students will be given the opportunity to study the structure of the language as we conduct a review of traditional grammar. Students will read representative works from the major literary periods which may include but are not limited to *Beowulf*, *The Canterbury Tales*, *Beowulf*, *Macbeth*, *Gulliver’s Travels*, *Frankenstein*, *A Christmas Carol*, *A Modest Proposal*, *Heart of Darkness*, and *A Portrait of the Artist as a Young Man*. *The course also includes selections of contemporary nonfiction and literary criticism.*

167 **Public Speaking**

Grades 9 - 12

Credit: .5

In this course, the student will develop skills in public speaking, debate, interpersonal communication, and oral interpretation. Students will develop their diction, volume, organization, and style. Each student will deliver a variety of speeches including, informative, persuasive, impromptu, and oral interpretation.

175 **The Graphic Novel**

Grades 9 - 12

This course is an introduction to graphic novels. A central focus will be how images and text combine to tell a story and make meaning. After beginning with short-form strip comics, study will shift to action-adventure and superhero comics. Following that, students will read and learn about “alternative” and “underground” comix (with an x) which have evolved into the modern long-form graphic novels of today. Students will learn the terms associated with the genre. Students will consider graphic novels as literature, analyze formal structure as it relates to content, and trace the development of various themes. Central questions will include the following: What works of literary culture offer significant insight to a broader sense of culture? What is considered literary and what is not? Most importantly, what makes a graphic novel canon? Possible texts include (but are not limited to) *The March*, *Maus: A Survivor’s Tale*, *Persepolis: The Story of a Childhood*, *American Born Chinese*, *Lindbergh Child*, *Special Exits*, *Stitches*, and *Batman: The Dark Knight Returns*.

Family & Consumer Science

680 **Child Development I**

Grades 9 - 12

Credit: 0.5

Child Development and Parenting is a nine week, half credit course designed to provide students with information regarding the mental, physical, and social development of children from pregnancy through age 3. In addition, content will be taught regarding parenting such as nurturing, discipline, schooling, child abuse, and parental support systems. This course is designed for any student who desires to become a parent in the future and/or wishes to obtain a career in childcare/education.

640 **Culinary Arts I**

Grades 9 - 12

Credit: 0.5

Culinary Arts is a nine week, half credit course that will utilize a combination of classroom learning and kitchen laboratory experiences to provide students with a base level of knowledge in food and food preparation. Students will be able to develop and refine their culinary skills with a goal of becoming self-sufficient in the home kitchen. The hands-on component of this course will allow for students to practice the basic skills they have learned. Areas of study will include safety and sanitation, tools and equipment, small appliances, and measurement techniques and equivalents.

641 **Culinary Arts II**

Grades 11 - 12

Credit: 0.5

Prerequisite: Culinary I

Culinary Arts II is a nine week, half credit course that will expand upon the culinary skills gained in Culinary Arts I. Students will participate in both classroom learning and laboratory experiences to gain more comfort in the field of food preparation. In addition to refining culinary skills used in the home kitchen, students will have the opportunity to experience food related careers and job opportunities. Areas of study will include tools, equipment, and appliances, cookies and cakes, cake decorating, meal planning, and catering.

645 **Lifetime Nutrition**

Grades 9 - 12

Credit: 0.5

Lifetime Nutrition is a nine week, half credit course designed to assist students in developing a foundation of basic nutritional knowledge. The goal of the course is to enable students to make healthier decisions regarding food and nutrition. Students will evaluate the role food plays in their lives and how to make positive decisions regarding food choices and eating styles. Focus will be given to learning of the essential nutrients and their functions in the human body. In addition, students will participate in cooking labs to gain exposure to various culinary techniques and foods that can be part of a healthy lifestyle. Areas of study will include nutrition basics, reading food labels, types of diets and eating patterns, health conditions, food substitutions, and meal planning.

157 **Future Ready**

Grades 11-12

Credit: 0.5

Future Ready is a nine-week course designed to provide students with an opportunity to participate in an informed career decision-making process. Throughout this course, student lessons will focus on three main areas: Exploring Careers, Planning for Careers, and Landing Careers. Upon the completion of this course, students will have developed a plan to get started on the correct path to achieve personal career goals. In addition, throughout the term we will focus on identifying, developing, and strengthening soft skills and workplace behaviors.

Health & Physical Education

831 **Adaptive Physical Education**
Credit: 0.5

Grades 9 - 12

This course is designed to give the adaptive students a complete physical fitness experience. Teachers work in conjunction with other support staff to facilitate the needs of each individual student.

870 **Driver's Education**
Credit: 0.25

Grade 10

Classroom driver's education affords the students an instructional background for driving a car. This course is taken in conjunction with Physical Education 10. The Physical Education 10 course meets for 4 1/2 weeks and the emphasis is on physical fitness and the team sports offered in Physical Education 9. There is also more emphasis on character education, team cohesiveness, and cooperative games.

836 **Fitness & Weight Training**
Credit: 0.5

Grades 9 -12

Fitness and Weight Training is a 9 week course that meets every day. It exposes students to weight training concepts, plyometrics, speed, agility and quickness training in addition to cardiovascular training. This class will enhance students' overall wellness. Each student will design and implement their own strength training program based on their own goals.

800 **Health 9**
Credit: 0.25

Grade 9

Ninth grade health is a class that meets for one nine week period, resulting in a quarter credit. This course focuses mainly on the health triangle. Topics covered include mental/emotional health, social health, physical health, and human sexuality. This course is taught in conjunction with ninth grade physical education.

821 **Health 11**
Credit: 0.25

Grade 11

Eleventh grade health is a quarter-long health class that meets for one nine-week period, resulting in a quarter credit. Topics covered include foundations of care, CPR, AED, choking and first aid for the Adult, Child and Infant. This class is taught in conjunction with PE 11.

824 **Health 12**
Credit: 0.25

Grade 12

Twelfth-grade health is a quarter-long class that meets for one nine-week period, resulting in a quarter credit. Topics covered include prefixes and suffixes, body systems, reproductive system, skeletal and muscular system, and mental and emotional awareness. This class is taught in conjunction with PE 12.

781 **Lifetime Fitness**
Credit: 0.50

Grade 9-12

Lifetime Fitness is an elective physical education class that meets for one nine week period, resulting in a half credit. It can only be taken once in a high school career. This course focuses on individual, simple, and complex lifetime sports that can be performed at any age. Topics covered include learning the rules and skills of pickleball, disc golf, badminton, yoga, pilates, group fitness, summer activities, geocaching, hiking, golf, elementary games, winter activities, and small sided games. Some of these activities can only be done during certain months.

- 780 **Lifetime Health** Grade 11-12
Credit: 0.50
Lifetime Health is a quarter-long elective health class that meets for one nine-week period, resulting in a half credit. It can only be taken once in a student's high school career. It's open to eleventh and twelfth grade female students. Topics covered include issues pertaining to relationships, mental health, and real life situations. Students will also study reproductive health and reproductive health outcomes. Throughout the course, students will participate in a weekly physical education class where they will learn lifetime activities.
- 799 **Physical Education 9** Grade 9
Credit: 0.25
Ninth grade physical education is a class that meets for one nine week period, resulting in a quarter credit. This course focuses mainly on traditional team sports. Topics covered include learning the rules and skills of football, softball, soccer, wrestling/self defense/tumbling among other small sided games. This course is taught in conjunction with ninth gRec. Sports:
- 810 **Physical Education 10** Grade 10
Credit: 0.25
Physical Education 10 is taken in conjunction with Drivers Education. This course meets for 4 1/2 weeks and the emphasis is on physical fitness and team sports. Emphasis is placed on character education, team cohesiveness, and cooperative games.
- 820 **Physical Education 11** Grade 11
Credit: 0.25
Eleventh grade physical education is a class that meets for one nine week period, resulting in a quarter credit. This course focuses mainly on non-traditional team sports. Topics covered include learning the rules and skills of nitroball, Tchoukball, basketball and summer activities among other games. This course is taught in conjunction with eleventh grade health.
- 830 **Physical Education 12** Grade 12
Credit: 0.25
Twelfth grade physical education is a quarter long course that meets every other day, resulting in a quarter credit. This course focuses on team and individual lifetime activities that can be performed at any age. Topics covered include learning the rules and skills of tennis, pickleball, badminton, nitroball, volleyball, team handball among other small sided games. Some of these activities cannot be played during the winter months. This course is taught in conjunction with twelfth grade health.
- 813 **Recreational Sports** Grades 9 - 12
Credit: 0.5
Recreational Sports is an elective physical education class that meets for one nine week period, resulting in a half credit. It can only be taken once in a high school career. This course focuses on individual, simple, and complex lifetime sports that can be performed at any age. Topics covered include learning the rules and skills of tennis, pickleball, disc games, badminton, nitroball, volleyball, basketball, and softball among other activities. Some of these activities can not be played during the winter months.

Mathematics

- 301 Algebra I** Grades 9 - 12
Credit: 1.0
Prerequisite: Successful completion of pre-algebra with a 70% or better
Algebra I is a one-semester, one-credit course designed as a beginning study of Algebra. The course covers real numbers, variables, linear equations and inequalities, linear systems, exponents, functions, factoring, and data analysis. Emphasis is placed on real-life problem solving strategies and graphing.
- 311 Algebra II** Grades 9 - 12
Credit: 1.0
Prerequisite: Algebra I
Algebra II is a one semester, one credit course for students who have successfully completed Algebra I and Algebra II. The course covers functions (linear, quadratic, polynomial, rational, exponential, and logarithmic) and graphing, analysis, and matrix operations utilizing hands-on experiments, technology, creating mathematical models for real world applications and team explorations. The course is designed to introduce students to the topics needed for successful work in Geometry.
- 300 Algebra II Accelerated** Grades 9 - 12
Credit: 1.0
Prerequisite: Algebra I, teacher recommendation
Algebra II Accelerated is a one-semester course dealing with the theory of algebra. This is a rigorous course designed to provide students with the prerequisite skills needed for the successful completion of higher level math courses. The main topics include linear systems and matrices, polynomial, exponential and rational functions and equations, a data analysis, and probability.
- 334_01 AP Calculus AB (CHS)** Grades 11 - 12
Credit: 1.0
Prerequisite: Trigonometry Accelerated
AP Calculus AB is a weighted, advanced placement, elective course covering the calculus of a single variable. This course has been audited and approved by the College Board as an advanced placement course and its curriculum is recognized by colleges and universities. The content covers the same content as first level college calculus classes. Numerical, graphical, analytical and verbal representations will be used to present the concepts of differential and integral calculus including rates of change, limits, derivatives and their applications, antiderivatives, techniques of integration and applications of definite integrals. Computers and graphing calculators will be utilized. The syllabus of the course satisfies the College Board's requirements for Advanced Placement Calculus AB. A Texas Instruments TI-84 Graphing calculator is required for this course.
- 334_02 AP Calculus BC** Grades 11 - 12
Credit: 1.0
Prerequisite: AP Calculus AB and teacher recommendation
AP Calculus II BC is an advanced placement, one-credit weighted elective course designed to allow students to explore topics typically covered in second or third level college calculus classes. This course has been audited and approved by the College Board as an advanced placement course and its curriculum is recognized by colleges and universities. The course covers differential equations, hyperbolic functions, advanced techniques of integration, infinite series, complex implicit relations and their applications, parametric functions, and polar equations. Applications of calculus to other disciplines will be explored. The syllabus of this course will follow the outline of topics provided by the college board for AP Calculus BC. Students will also be provided the opportunity to prepare for the AP Calculus exam if they elect to take the exam. A Texas Instruments TI-84. Graphing calculator is required for this course.

334_03 AP Pre-Calculus

Grades 11 - 12

Credit: 1.0

AP Pre-Calculus helps students build a strong foundation for calculus and other advanced STEM classes. Students study different types of functions, such as polynomial, exponential, logarithmic, and trigonometric, and learn how to model real-world situations, solve problems, and explain their thinking clearly. The course emphasizes patterns, graphs, and practical applications, while using technology to explore concepts and analyze data, and it prepares students for the AP Exam and future math experiences.

351 Applied Algebra Part I

Grades 9 - 10

Credit: 1.0

Applied Algebra Part I is a one-semester, one-credit course designed as a beginning study of Algebra. The course covers operations with real numbers, solving and graphing, linear equations, statistics and probability. Emphasis is placed on strengthening basic skills, real life problem solving strategies and graphing.

352 Applied Algebra Part II

Grades 9 - 12

Credit: 1.0

Prerequisite: Successful completion of Applied Algebra Part I

Applied Algebra Part II is a one-semester, one-credit course designed as a continuation of Applied Algebra Part I. The course covers linear equations and inequalities, linear systems, functions, factoring, probability, and coordinate geometry. Emphasis is placed on real-life problem solving strategies and graphing.

357 Applied Personal Finance

Grades 9 - 12

Credit: 1.0

Prerequisite: Successful completion of Applied Algebra Part II

Applied Personal Finance is a practical math and business course designed to equip students with essential skills for managing personal finances, covering budgeting, credit, investing, insurance, and retirement planning. It focuses on real-world application of financial concepts, such as tax planning, risk management, and wealth building, ensuring individuals can make informed financial decisions.

321 Geometry

Grades 9 - 12

Credit: 1.0

Prerequisite: Algebra II or Applied Algebra Parts I, II, and Consumer Math

Geometry is a one-semester, one-credit course for students who have successfully completed Algebra II or Applied Algebra Parts I, II and III. The course presents geometry by using a guided-discovery approach, whereby students work with the tools of geometry and discover geometric properties by experimentation and observation. Real world application, technology, mathematical models and team explorations are utilized. This course is designed to introduce students to the topics needed for successful work in Trigonometry and Pre-calculus.

310 Geometry Accelerated

Grades 9 - 12

Credit: 1.0

Prerequisite: Algebra II Accelerated

Geometry Accelerated is a one-semester, one-credit course for students who have successfully completed Algebra II accelerated. The course is rigorous and covers all topics of traditional plane geometry and many topics of solid geometry. Students are expected to know and apply previously learned Algebra skills in a geometric setting. Logic and problem solving is emphasized through content knowledge, formal and informal proof, utilizing manipulatives and application problems.

336 Math K-NEXtions

Grades 10 - 12

Credit: 0.5

This course is a 9-week math elective class. It will use a hands-on approach to discovering engineering and mathematical concepts. Students will work on projects together in teams: brainstorming, designing, building, testing, analyzing, and rebuilding. Many projects will use K-NEX pieces to construct however other everyday objects will be used also. There will be an overarching theme of STEM (Science, Technology, Engineering, Mathematics) each project uses. Teamwork and communication are two soft skills this course will focus on.

350 **Statistics (CHS)**

Grades 11- 12

Credit: 1.0

Prerequisite: Algebra I

Students will explore contemporary issues through statistics and data analysis. Descriptive and inferential statistics will be covered in the course. Topics include measures of center, measures of variation, probability, discrete and normal probability distributions, confidence intervals, hypothesis testing, correlation and regressions. The TI-84 and statistical software will be used to analyze statistical data.

Music

- 168 **Acting & Stage Design** Grades 9 - 12
Credit: 0.5
This course will approach acting as the realistic portrayal of emotions. Students will improve their volume, facial expressions, gestures, and movement to present real emotions to an audience. Course material includes styles and techniques of acting along with a technical knowledge of stage lighting and set design. Each student will perform five monologues and will act in several group scenes including a combat situation.
- 722 **Brass Ensemble** Grades 9-12
Credit: 0.5
Prerequisite: Ability to play a brass instrument
This course will allow the student to work on a solo for his/her instrument as well as perform in a small group. Students may choose to learn a second instrument. Performance may be required. Combinations of brass instruments will be explored.
- 730 **Broadway Dinner Choir** Grades 9-10
Credit: 0.5
Prerequisite: Participating in one other elective choir
Students in this choir will prepare for and perform at the annual Broadway Dinner. Opportunities are available for solo, small group and full choir singing. To participate in this choir, you must also be registered for a large choir group. Students are required to provide their own costume(s). This may require a rental fee or purchase of materials.
- 704_2 **Digital Music Creation** Grades 9 - 12
Credit: 0.5
Students will learn the basic concepts of synthesizers, MIDI, computer applications in music, Analog and Digital recording techniques, effects, processors, etc. This course is hands-on. Students will have the opportunity to experiment with many different types of electronic equipment. Limited space is available.
- 725 **GM Jazz- Big Band** Grades 10 - 12
Credit: 0.5
Prerequisite: Audition and enrollment in concert band or symphonic wind ensemble and/or permission of instructor. Priority will be given to students participating in marching band and concert band or symphonic wind ensemble.
Some sessions on jazz history and improvisation will be held. The band participates in competitions and numerous performances throughout the semester. Instructors may permit students based upon ability level.
- 738 **Guitar Ensemble** Grades 9 - 12
Credit: 0.5
Prerequisite: Interest to play a stringed instrument
This course will allow the student to work on a solo for his/her instrument as well as perform in a small group. Students may choose to learn a second instrument. Performance may be required. Combinations of string instruments will be explored.
- 732 2 **History of Popular Music** Grades 9-12
Credit: 0.5
This course explores the rich history of popular music, beginning with the development of the blues and the American Song form. Students will trace the evolution of various musical genres, including jazz, rock 'n' roll, soul, funk, hip-hop, and electronic music, leading to contemporary popular music. The course will examine the cultural, social, and technological influences that have shaped these genres and their impact on society. Through listening, analysis, and discussion, students will gain a comprehensive understanding of the significant musical movements and artists that have defined popular music from its origins to the present day.

732_3 History of Musical Theater

Grades 9-12

Credit: 0.5

In this course, students will learn about musical theatre's history, performance practice, and advancement. Students will experience musical theatre by listening to important recordings, watching professional performances, and possibly attending live local performances. Students will begin by learning the basics of theatre and then begin brief instruction of opera, operetta, ballet, and ballad opera before moving on to the 20th century. Then students will progress from Tin Pan Alley to follies, to the great American musical, the Golden Age, Andrew Lloyd Weber, Stephen Sondheim, Stephen Schwartz, Alan Menken, Maury Yeston, David Malloy, Jonathan Larson, Jason Robert Brown, Pasek and Paul, Lin-Manuel Miranda, and contemporary musicals.

734 Holiday Choir I

Grades 9-10

Credit: 0.5

This mixed choir meets during the second term and performs traditional holiday music. Performances at holiday concerts and gatherings will be part of the experience. Students signing up for this course need to have no prior singing experience.

701_1 Holiday Symphonic Winds

Grades 9-10

Credit: 0.5

This instrumental ensemble meets during the second term for holiday concerts and gatherings. Students will perform traditional and modern holiday music as part of their Holiday Symphonic Winds experience.

739 Introduction to Piano

Grades 9-12

Credit: 0.5

In this course, students will learn piano basics- hand position, finger numbers, proper posture, and more rudiments. This course is designed for students of any level. Beginners will work out of a piano book as a class with benchmark songs to complete throughout the course. Students with more experience will work out of more advanced workbooks or on solo repertoire appropriate to their skill level.

718 Jazz Improvisation I

Grades 9 - 12

Credit: 0.5

Prerequisite: Instructor approval

This course will teach basic jazz improvisation and music theory and harmony as it relates to jazz performances. The lab will be used to support solos that the student will create. Where possible, combo experiences will be provided for the student.

700 Marching Band

Grades 9-12

Credit: 0.5

Prerequisite: Ability to play an instrument; audition required for visual unit

The Marching Band performs at all football games, parades and competitions. Marching band members must be a member of a concert band to participate. Questions should be referred to the band director.

706 Music Theory I

Grades 10-12

Credit: 0.5

Prerequisite: Instructor's Permission

Basic elements of music compositions will be taught leading to the realization of four-part harmonies. Melodic and rhythmic dictation, sight singing and ear training will be included.

- 720 **Percussion Ensemble** Grades 9-12
Credit: 0.5
Prerequisite: Ability to play a percussion instrument
This course will allow the student to work on a solo for his/her instrument as well as perform in a small group. Students may choose to learn a second instrument. Performance may be required. All percussion instruments will be taught.
- 710 **Spring Concert Choir** Grades 10-12
Credit: 0.5
Participants in Concert Choir are exposed to elements of proper vocal technique, music reading and stylistic elements of different musical periods. Students participate in the spring choral concert.
- 701_2 **Spring Symphonic Winds** Grades 9-12
Credit: 0.5
Participants in the Spring Symphonic Winds will be exposed to proper performance techniques and will perform music from different musical periods. Students will participate in the Spring Symphonic Winds concert.
- 714 **Vocal Jazz Ensemble** Grades 9-12
Credit: 0.5
Prerequisite: Instructor's Permission (Audition may be required)
This course is designed for highly motivated vocalists, looking for a more intensive, high-paced performing ensemble with a focus on vocal music.
- 721 **Woodwind Ensemble** Grades 9-12
Credit: 0.5
Prerequisite: Ability to play a woodwind instrument
This course will allow the student to work on a solo for his/her instrument as well as perform in a small group. Students may choose to learn a second instrument. Performance may be required. Combinations of string instruments will be explored.

Science

- 450 **Anatomy** Grades 10 - 12
Credit: 1.0
Prerequisite: Biology and Chemistry
This course was developed to introduce basic human anatomy and physiology. Students planning a career in any health related field should be encouraged to take this class. The basic scope and sequence of the course will cover the following bodily systems: skeletal, muscular, cardiovascular, and nervous. Each unit will include lab explorations like monitoring blood pressure, sensory labs, dissection of the sheep brain, sheep heart, cow eye, and bullfrog's muscular system. All material covered in this class is unique to the course and is not covered in any other science class offered at GM. **This course counts as an elective credit.**
- 429_01 **AP Biology (CHS)** Grades 11 - 12
Credit: 1.0
Prerequisite: Biology and Chemistry
AP Biology is a course designated for the accelerated, college bound students. The course builds on the concepts learned in Biology I with an emphasis on laboratory explorations. By structuring the course around the four big ideas, enduring understandings, and science practices students will develop an appreciation for the study of life. This course will help students identify and understand unifying principles within a diversified biological world. In addition, this course will facilitate critical thinking skills in the process of inquiry. At the end of the course, students will have an awareness of the integration of other sciences in the study of biology, understand how the species to which we belong is similar to, yet different from, other species, and be knowledgeable and responsible citizens in understanding biological issues that could potentially impact their lives. This course counts as an elective credit. **This course counts as an elective credit.**
- 420_01 **AP Chemistry (CHS)** Grades 11 - 12
Credit: 1.0
Prerequisite: A "B" average in Chemistry I and Algebra II
This course is an advanced chemistry course designed for those students who exhibit a desire and an ability to continue beyond the basic chemistry. It includes a review of major concepts from Chemistry I Accelerated and new topics in the area of nuclear reactions, rates of chemical reactions, various equilibrium types and electrochemistry. An introduction to organic chemistry is also included if time permits. Experimentation & mathematical analysis are emphasized. The syllabus of the course satisfies the College Board's requirements for AP Chemistry exam. **This course counts as an elective credit.**
- 4011 **AP Environmental Science** Grades 11 - 12
Credit: 1.0
Prerequisite: Biology and Chemistry
The AP Environmental Science course is a one-credit course designed to be the equivalent of a one-semester, introductory college course in environmental science. The goal of the course is to provide students with the scientific principles, concepts, and methodologies required to understand the interrelationships of the natural and human worlds. Students will identify and analyze environmental problems-both natural and human-made-evaluate the relative risks associated with these problems, examine alternative solutions for resolving and/or preventing these problems, and -in the process-develop and focus their own individual perspectives on the issues facing our world now and in the future. Through interdisciplinary in nature, AP Environmental Science has several cross-cutting themes: science is a process, energy, conversions underlie all ecological processes, the Earth itself is one interconnected system, humans alter natural systems, environmental problems have a cultural and social context, human survival depends on developing practices that will achieve sustainable systems. **This course counts toward one of the three science credits required for graduation.**

- 464 **Applications of Science** Grades 11 - 12
 Credit: 1.0
 Prerequisite: Biology and teacher recommendation
 This course will provide students with a grounded practical experience that spans the physical science disciplines. A hands-on, laboratory-based approach is purposefully explored throughout the course. Distinct attention is paid to topics involving energy which include energy and work, heat, electricity, electricity generation, renewable and nonrenewable sources of electricity, waves, light, and optics. **This course counts toward one of the three science credits required for graduation.**
- 460 **Astrophysics** Grades 10 - 12
 Credit: 0.5
 Astrophysics is a science course for students who desire to learn about phenomena beyond the scope of the earth using minimal amounts of mathematics. The topics that will be discussed are space flight, NASA, the solar system, black holes, UFO's, stars, comets, asteroids, galaxies, cosmology, and the universe. The course will be swayed by student interest and current events in astrophysics. **This course counts as an elective credit.**
- 411 **Biology** Grades 10 - 12
 Credit: 1.0
 Prerequisite: Integrated Science
 This course will provide students with the understanding necessary to meet the Pennsylvania Keystone standards in the discipline of biology. Specific topics discussed in this course include biochemistry, prokaryotic and eukaryotic cell structure, cellular homeostasis, cellular reproduction, photosynthesis and cellular respiration, DNA replication, transcription, and translation, genetics, mechanisms of evolution, and comparative anatomy through a series of dissections. Upon completion of Biology, the student will take the Keystone Exam in Biology. **This course counts toward one of the three science credits required for graduation.**
- 400 **Biology Accelerated** Grades 9 - 12
 Credit: 1.0
 Prerequisite: MS Teacher Recommendation
 The purpose of this course is to help students develop the concepts necessary for understanding living organisms. Course topics will be covered in a depth appropriate for the accelerated student. Upon completion of Biology I Accelerated, the student will take the Keystone Exam in Biology. Topics discussed in this course include characteristics of organisms and their levels of biological organization, life sustaining properties of water, biochemistry, mechanisms of evolution, principles of ecology, prokaryotic and eukaryotic cell structure, cellular homeostasis, the cell cycle, and cellular reproduction, photosynthesis, cellular respiration, DNA replication, transcription, translation (protein synthesis), genetics, and comparative anatomy through a series of dissections. **This course counts toward one of the three science credits required for graduation.**
- 421 **Chemistry** Grades 10 - 12
 Credit: 1.0
 Prerequisite: Integrated Science & Algebra I
 Chemistry is a physical science dealing with the structure and composition of matter, the changes matter undergoes, and the mechanisms by which these changes occur. The topics covered in this course include: bonding chemical formulas, composition and nomenclature, chemical reactions and equations, stoichiometry, solutions, and gas laws. There is a significant amount of mathematics used in Chemistry thus requiring an above average ability in mathematics. **This course counts toward one of the three science credits required for graduation.**

- 410 **Chemistry Accelerated** Grades 10 - 12
Credit: 1.0
Prerequisite: Biology Accelerated or Biology and Algebra II or Algebra II Accelerated
Chemistry is a physical science dealing with the structure and composition of matter, the changes matter undergoes, and the mechanisms by which these changes occur. The topics covered in this course include: matter and its changes, scientific measurements, atomic structure, electron arrangement, the periodic table, bonding, chemical formulas, composition and nomenclature, chemical reactions, stoichiometry, solutions and gas laws. There is a significant amount of mathematics used in Chemistry thus requiring an above average ability in mathematics. Chemistry I Accelerated also places a large emphasis on high analytical skills. **This course counts toward one of the three science credits required for graduation.**
- 437 **Integrated Science** Grade 9
Credit: 1.0
Integrated Science will provide students with an experience that encompasses the breadth of the natural sciences, including physics, chemistry, and biology. This course will provide foundational knowledge that will serve students well in all future science courses. **This course counts toward one of the three science credits required for graduation.**
- 462 **Nuclear Physics** Grades 11 - 12
Credit: 0.5
Prerequisite: Chemistry I Accelerated or Physics I
The student will become familiar with nuclear reactions, quantum physics and atomic physics. The depth and scope of these topics will be steered by the student's interest level. The student will apply mathematical solutions to physical problems and expand his or her problem solving ability. The student will learn to communicate scientific data, results and conclusions, and to relate the concepts of physics to everyday phenomena. **This course counts as an elective credit.**
- 433 **Physics** Grades 11 - 12
Credit: 1.0
Prerequisite: Biology I and Algebra II (or equivalent)
Physics is a science course that focuses on the study of matter and energy and their interactions. It provides a systematic understanding of the fundamental laws that govern physical, chemical, and biological processes. This Physics course is for students that desire to go beyond the introductory level and is designed to: instruct students in foundational physics concepts, prepare students to exist in an increasingly technological society, develop the students' analytical, problem solving, and laboratory skills and integrate math, science and technology. **This course counts toward one of the three science credits required for graduation.**
- 440 **Physics I Accelerated** Grades 11 - 12
Credit: 1.0
Prerequisite: Concurrent or completed Trigonometry Accelerated
This course will provide the student with the opportunity to develop a basic understanding of the fundamental principles of physics. The course includes a thorough study of classical mechanics. A problem solving approach will be emphasized. Students will participate in a variety of classroom activities to develop confidence in their ability to understand and apply scientific concepts and principles. **This course counts toward one of the three science credits required for graduation.**
- 441 **Physics II Accelerated** Grades 11 - 12
Credit: 1.0
Prerequisite: Physics I Accelerated
Physics II is an advanced physics course designed for those students who exhibit a desire and an ability to continue beyond accelerated physics. The course will begin with a brief review of mechanics and then proceed to the following topics: vibrations and waves, sound, light and optics, relativity, and electricity and a little magnetism. If time remains, topics of fluids and thermodynamics will be introduced. A problem-solving approach will be emphasized. Students will participate in a variety of classroom activities designed to develop confidence in their abilities to understand and apply scientific concepts and principles. **This course counts as an elective credit.**

466_1 **Wilderness Science and Exploration**

Grades 9 - 12

Credit: 0.5

This hands-on, field-based course explores forest and aquatic ecosystems, local plants and animals, and basic outdoor survival skills. Students examine biodiversity, ecological relationships, sustainability, and current environmental issues through activities such as plant identification, wildlife tracking, and freshwater and marine studies. Because learning regularly occurs outdoors, students are required to dress appropriately for the season and weather conditions. Through direct experience in nature, students develop scientific understanding, practical outdoor skills, and a strong sense of environmental stewardship. **This course counts as an elective credit.**

Social Studies

- 229 **AP U.S. Government and Politics** Grades 11
Credit: 1.0
Prerequisite: U.S. History I & U.S. History II
Study the key concepts and institutions of the political system and culture of the United States. You'll read, analyze, and discuss the U.S. Constitution and other documents as well as complete a research or applied civics project.
- 231_01 **AP U.S. History** Grades 11 - 12
Credit: 1.0
Prerequisite: U.S. History I & U.S. History II
The advanced placement U.S. history course is an elective course of study that will prepare students to take the advanced placement exam. Successful completion of this exam provides college credit to the colleges and universities that accept the advanced placement exam results. This course will expand upon the traditional curriculum to include an in-depth study of U.S. domestic and foreign affairs up to and including present-day.
- 232 **AP World History** Grades 10 - 12
Credit: 1.0
Study the cultural, economic, political, and social developments that have shaped the world from c. 1200 CE to the present. You'll analyze texts, visual sources, and other historical evidence and write essays expressing historical arguments.
- 241 **Current Affairs** Grade 9 - 12
Credit: 0.5
Current affairs will cover issues, events, history, and geography from our local community, state, nation, and world. Each week students will examine local, state, and national news in addition to covering a region of the world.
- 226 **Government, Civics, & Economics** Grade 11
Credit: 1.0
Prerequisite: U.S. History II
This course introduces students to the structure and workings of the American government and the political system. Students will also learn about economic systems and the role of government in the economy. Through the use of primary and secondary sources, students will examine the foundations of the American government, the United States Constitution, citizenship, and the role government has in their life. While the course emphasizes American Government, students will also have the opportunity to examine other systems of governance.
- 242 **Psychology (CHS)** Grades 11 - 12
Credit: 1
General Psychology is a survey of the fundamental concepts and approaches relating to human thoughts and behavior. The course includes an overview of the scientific methods used to study human behavior and is designed to help students better understand the motivation and behaviors of themselves and others.
- 248 **Social Conflict** Grades 11 - 12
Credit: 0.50
In this course, students will investigate the dangers of ignorance, discrimination, and persecution throughout history. Through the use of films, websites, and activities, students will analyze case studies of ethnic conflict and Genocide, paying careful attention to the ways in which the forces of division contribute to these conflicts. After being exposed to various world events and human suffering, students will be expected to complete a final project related to course content, identifying their role in raising awareness and/or presenting possible solutions to world problems.

- 240 **Sociology** Grade 10-12
 Credit: .50
 Sociology is an introductory course that focuses on social behavior in human groups. The primary objective will be to examine and identify patterns of behavior in terms of the roles that people have in specific groups. The students will focus on the elements of groups in culture, the family, race, ethnicity, education, and religion. They will attempt to apply sociological knowledge to existing social situations.
- 207 **Struggle & Triumph: History Through Sports** Grades 9 - 12
 Credit: 0.5
 This course will focus on the struggles and triumphs of individuals, societies, and countries through the lens of sports. From the Olympics in Ancient Greece to modern day athletics, students will see how historical events have been impacted by sports and how sports have been impacted by historical events. This course is intended for all students who are interested in exploring historical events from a unique perspective. You don't need to be an athlete or love sports to learn and be engaged by this social studies course!
- 212 **U.S. History I** Grade 9
 Credit: 1.0
 The topics covered in the ninth grade US History course will include: Mexican War, events leading up to the Civil War, Civil War, Reconstruction Era, Indian policies, railroads, steel, oil and automobile industries, industrialization in general, urbanism, Gilded Age, expansionism, U. S. emerging as a world power, Spanish American War, Progressive Era, Wilson years and WWI. There will also be an emphasis on geography and the comparing and contrasting of events that happened throughout the world at the same time periods.
- 214 **U.S. History I Accelerated** Grade 9
 Credit: 1.0
 Content of this course is the same as course #212, but an emphasis will be placed on higher order thinking, critical thinking, and problem solving. Alternative assessments, such as drawings, narratives, debates, group presentations, short story construction, self and group evaluations, will be used with the standard assessment techniques to determine the student's grade. There will be a more demanding writing component as well.
- 213 **U.S. History II** Grade 10
 Credit: 1.0
 Prerequisite: U.S. History I
 The course pursues the study of modern US history and the relationship of our country to the larger world. The course begins after WWI in the year of 1920 and concluded by studying the present day US as well as its relationship to Europe, Asia, Africa and Latin America. Emphasis will be placed on the Jazz Age, the Great Depression, the struggle of WWII, battling the Cold War and transformations within the United States and the World.
- 215 **U.S. History II Accelerated** Grade 10
 Credit: 1.0
 Prerequisite: U.S. History I
 Content of this is the same as course #214, but an emphasis will be placed on higher order thinking, critical thinking, visual learning and the use of primary source documents, as tools for finding our place in the global society of this time period. Alternative assessments, such as drawings, narratives, debates, group presentations, and short story construction.
- 216 **WWII and the Greatest Generation** Grade 11,12
 Credit: 0.5
 Prerequisite: U.S. History I & US History II
 This course will be a detailed study of the most pivotal event of the 20th century. Emphasis will be placed on the major political and military leaders of the conflict along with the common soldiers. Focal points include the pre-war causes, world leadership biographies, theaters of operations, training, weaponry and technological advancement. Students will examine the impact on the home front, factory production, POW/internment camps, and treatment of minorities. Special attention will be given to the experience of the average soldier, sailor, airman, marine, and citizen.

Technology Education

- 634 **Architectural Design I** Grades 9 - 12
Credit: 0.5
Students will design their own residential dwelling and draw a set of working plans for that design. Drawings will be completed using an architectural design software. Drawings to be completed include floor plans, elevations and a 3-D model.
- 638 **Architectural Design II** Grades 9 - 12
Credit: 0.5
Prerequisite: Architectural Design I
This course is a continuation of Architectural Design I with students learning how to design individual rooms of a residential dwelling taking into consideration traffic flow through the house. Using an architectural design software, students will create a set of working drawings based on their designs. Drawings to be completed include floor plans, elevations, 3-D models and a walkthrough.
- 639 **Computer Animation** Grades 10 - 12
Credit: 0.5
Students will use a professional computer animation tool to study two-dimensional animation as it pertains to web development. The animation will be used to enhance the content and design of a web page.
- 635 **Engineering Design I** Grades 9 - 12
Credit: 0.5
This course provides an introduction to computer aided drafting, CNC machining and the engineering design process. Students will use CAD software to complete multi-view projections with dimensions as well as 3-D models. Using CAD drawings students will learn how to produce parts on CNC machines. Students will also be introduced to the engineering design process. (This course replaced CAD I.)
- 635 **Engineering Design II** Grades 9 - 12
Credit: 0.5
Prerequisite: Engineering Design I
This course is a continuation of Engineering Design I with students learning more advanced CAD and CNC concepts. Students will use CAD software to complete 3-D models incorporating section views, auxiliary views and working drawings. Students will use the engineering design process to design a product to be produced utilizing advanced CNC machining concepts.
- 601 **Home Maintenance** Grades 9 - 12
Credit: 0.5
This course is designed to teach students about basic home repairs & maintenance. Items to be covered include drywall repair, painting, wallpaper, electrical and plumbing repair, furniture assembly and ceramic tile repair. These skills will be acquired through hands-on technology learning activities.
- 610 **Introduction to Metal Materials & Processes** Grades 9 - 12
Credit: 0.5
Introduction to Metals introduces students to the study of metal materials, design, tools and processes. Students will explore various aspects of metal manufacturing, including how the processing and changing of raw materials can produce desirable products. During this process they will create custom manufactured projects while learning aspects of machine safety. This course will conclude with a manufacturing unit where students mass produce a product.

- 600 **Introduction to Wood Materials & Processes** Grades 9 - 12
Credit: 0.5
Introduction to Wood Material and Processes introduces students to wood material, tools and equipment. Students will develop an understanding of design and transform the design into a completed wood product. Students will study safety, fabrication, assembly and finishing of a wood product. The course concludes with a construction unit covering structural design and processes.
- 163 **Media Arts** Grades 9 - 12
Credit: 0.5
Media Arts is a communications class. We focus on storytelling with the use of cameras and editing programs. Students will also enrich their technology skills using apps such as Google Docs, Google Drive, Wordpress (web design) and YouTube. Students will have the opportunity to create a portfolio creating video stories within their interests connected to our school. School Announcement projects will be selected to be shown to the rest of the school during Advisory.
- 612 **Metal Production Systems** Grades 10 - 12
Credit: 0.5
Prerequisite: Introduction to Metal
Metal Production Systems is an advanced study of metal material, design, equipment, and manufacturing processes. Students will examine the processes of manufacturing facilities and the advances that maintain manufacturing efficiency. Students will create custom metal projects through various manufacturing processes.
- 626 **Power Technology** Grades 9 - 12
Credit: 0.5
Power Technology provides a broad overview of energy, control systems, and transportation. Students will explore how energy and power systems can be made and how they may be utilized for problem solving. Transportation systems will be examined by looking at their functional processes and impacts.
- 628 **Robotics & CNC Technology** Grades 10 - 12
Credit: 0.5
In this course students examine the different types, uses, power systems, and control techniques for robotics. Through lab experiments, students use the Scorbot robot to gain experience and develop their own practical use of the robot. In the CNC unit, students develop a basic understanding of machining, processor language and programming of the CNC mill, lathe and router. The course concludes with the study of Master CAM software and how to apply it to design and machining a product.
- 613 **Wood Production Systems** Grades 10 - 12
Credit: 0.5
Prerequisite: Introduction to Wood
Wood Production Systems is an advanced study of wood material, design and equipment. This class is geared towards students with an aptitude of working with their hands in a lab based classroom. Students will work through the design process to create a project. This class will require a lab fee for any materials used.

World Language

515_01 AP Spanish Language and Culture

Grades 11 - 12

Credit: 1.0

Prerequisite: Spanish III

This is a challenging course that is taught exclusively in Spanish with an immersion-like approach. It is appropriate for students who learn in a high energy and interactive setting. The goal of the course is to equip students with Intermediate-High to Advanced-Low presentational, interpersonal, and interpretive skills in reading, writing, speaking, and listening. By taking the AP course and earning a successful score on the AP Exam, students can stand out in college admissions and earn college credits by skipping out of introductory courses.

548 Introduction to World Language & Culture

Grades 9 - 12

Credit: 0.5

Get ready to explore French and Spanish-speaking countries around the world! These two language cultures make up over 700 million people on Earth. Students will discover the food, music, art, and celebrations that make these cultures so unique. Students will learn words and phrases used in real life travel and social situations. This course complements any student's schedule and can provide a better understanding of what you're learning in other classes.

510 Spanish I

Grades 9 - 12

Credit: 1.0

Spanish I is an introductory language and culture course. Students will begin as Novice-Low learners. By the end of the semester, students will gain a working knowledge of the people, language, culture, history, geography, and daily customs of Hispanic countries. Students are expected to reach a proficiency level of Novice-High in preparation for Spanish II.

511 Spanish II

Grades 9 - 12

Credit: 1.0

Prerequisite: Spanish I

This course will further develop Spanish language proficiency. Through a continued exploration of the Hispanic world, students will be expected to reach a proficient level of Intermediate-Low in preparation for Spanish III.

512 Spanish III

Grades 10 - 12

Credit: 1.0

Prerequisite: Spanish II

As a continuation of Spanish II, students will polish their intermediate reading, writing, listening, and speaking skills. Spanish III is appropriate for those who are seeking to fulfill basic university requirements, as well as those who wish to enroll in AP Spanish.

514 Spanish V

Grades 11 - 12

Credit: 1.0

Prerequisite: AP Spanish Language and Culture

This course will focus on higher levels of conversations in Spanish reading and writing at advanced levels. Students work independently, participating in a variety of reading and writing activities.