

PLUM SENIOR HIGH SCHOOL

10th-12th GRADE PROGRAM OF STUDIES 2013-2014



**Plum Senior High School
900 Elicker Road
Plum, PA 15239
412-795-4880
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www.pbsd.k12.pa.us**

DISTRICT MISSION STATEMENT

Plum Borough Schools, in partnership with parents and community, will strive for excellence in education in order to prepare all students to take their place in the diverse and changing world of the 21st Century. The District will provide a safe and stimulating environment that will promote and support critical thinking and life-long learning.

BOARD GOALS

1. Accountability in all phases of district programs, instruction, and operations through its development of board policies, administrative procedures, and communications.
2. Quality education for students of all abilities.
3. An educational environment that complements curricula, discipline, safety, and initiatives and encourages strong communications between the District and Community-at-Large.
4. Develop a multi-year budgeting system for continued financial stability.

BOARD OF SCHOOL DIRECTORS

Mr. Andrew Drake, President
Mr. Sal Colella, Vice President
Mr. Kevin Dowdell
Mr. Tom McGough
Mr. Shane McMasters
Mr. John St. Leger
Mr. Joe Tommarello
Mrs. Loretta White
Mr. Richard Zucco

CENTRAL ADMINISTRATION

Dr. Timothy Glasspool, Superintendent
Dr. Guy Rossi, Assistant Superintendent

PLUM SENIOR HIGH SCHOOL

ADMINISTRATIVE STAFF

Mr. Ryan Kociela, Principal
Mr. Michael Loughren, Assistant Principal
Mrs. Rachel Gattuso, Assistant Principal
Mr. Robert Alpino, Athletic Director
Mr. Jeff Wolfe, Coordinator of Student Services

GUIDANCE STAFF

(assigned to students by last name alphabetically)

Mr. Robert Fekety, A – Do
Mrs. Kerry Plesco, Dr – La
Mrs. Nadia Abbondanza, Le – Rh
Mr. Brian Betta, Ri – Z

Foreword

Plum Senior High School offers a comprehensive curriculum which provides students the capability to individualize schedules to best prepare for post-secondary aspirations. Parents are encouraged to communicate with both teachers and counselors during the scheduling process. In many cases, the selection of classes can be a simple task, but with others, it can prove to be challenging. Class selection should be based on academic success, academic interest, post-secondary aspirations and input from parents, teachers, and guidance counselors.

We sincerely hope that the upcoming school year will provide countless positive learning experiences.

Grade Advancement

Advancement to subsequent grade levels is determined by credits earned and passing grades in mandated courses.

Grade	Requirements
9→10	Four credits earned in grade 9 of which three must be in the core content areas of English, social studies, math or science.
10→11	A total of 12 credits earned in grades 9 and 10.
11→12	Student must be in position to satisfy all graduation requirements during the course of the regular school year.

Graduation Requirements

A diploma for Plum Senior High is granted upon successful completion of 25.5 credits. These credits include state and district mandated subjects and a graduation project. Students who do not successfully complete credit requirements will not receive a diploma or participate in the commencement ceremony. The state component will depend on PDE legislation.

Minimum Credit Requirements for Graduation—Classes of 2014-2018

Course	Credits	Mandated
English	4.0	State
Social Studies	4.0	District
United States History (2)		State
World Cultures (1)		State
Science	3.0	State
Mathematics	3.0	State
Physical Education	2.0	State/District
Health Education	.5	State/District
Electives	<u>9.0</u>	District
TOTAL	25.5	

Keystone Exams

The class of 2017 will be required to score proficient or advanced on the state required Keystone Examinations for Algebra I, Biology, and English Literature. Plum Senior High will employ instruction, resources, and remediation steps which afford students the best opportunity for success on the Keystone Exams. Scores for Keystone Exams will be included on students' official transcripts. Students not scoring proficient or advanced on any of the exams by the end of their 11th grade year, will be required to complete a project based assessment relating to their content of deficiency, and may also be required to participate in a related remediation class. Students may re-take the exams as many times needed to achieve proficiency as the state permits, until the end of their junior year.

Scheduling Process

Guidance counselors will meet with students and present recommended class selections based upon academic progress, post-secondary aspirations, and potential career goals. Any questions concerning a class can best be answered by either a guidance counselor or the teacher(s) currently teaching the classes in question.

Students' class selections are the direct result of careful personal planning, parent input, staff recommendations, and guidance. Few educational endeavors are as critical or time consuming as student scheduling.

Teaching assignments, class offerings, and class sizes are based on total numbers of student requests for each course through the end of the scheduling process. Because of the potential for adverse educational impacts to class offerings, class sizes, and even staffing, **requests for changes to class selections will not be taken after the last day of the school year (6/6/2012) for the 2013-2014 school year.** Students will subsequently be expected to adhere to the schedule that results from class selections determined by 6/6/2013.

It is the responsibility of students and parents to thoroughly review class selections and return a signed ***Schedule Agreement***. If there is an error or desired change on the Schedule Agreement (student's class requests), the parent should contact the appropriate guidance counselor prior to the end of the school year to make the necessary corrections.

Study Hall Policy

Students may not be scheduled for more than ten (10) study halls per six-day cycle. This is a School Board policy.

Curriculum and Post-Secondary Planning

Ranging from workforce ready to advanced college preparatory, various levels of program planning can be created for each student. Students are encouraged to take classes that provide academic rigor in order to best prepare for post-secondary aspirations. Students may enroll in classes of various levels depending on individual need, ability, and interest.

Supported

Supported classes provide the same curricular content as academic classes, but are typically team taught by a regular and a special education teacher. Competency levels of assignments and assessments are modified to meet the individual needs of students.

Special Education Programs

Special Education students are scheduled according to the specific needs identified in their Individualized Education Plans (IEP). A case manager (in addition to the student's counselor) will be assigned to oversee the instructional progress and needs of each student identified with special needs.

Academic

The content and competency levels of academic classes are designed to prepare students for post-secondary educational experiences. Because entrance requirements vary among post-secondary institutions, it is recommended that students select courses that demonstrate a marketable academic aptitude for potential acceptance to the post-secondary institution of each student's choosing.

Honors/Advanced Placement

Honors and Advanced Placement classes provide high levels of academic rigor for students with an interest and/or ability in contents beyond the regular academic level.

Honors classes and the grade level at which they are typically offered:

Honors English I – 9	Biology (A) – 9
Honors English II – 10	Chemistry (A) – 10
	Physics (A) – 11
Plane Geometry (A) – 9	
Algebra II (A) – 10	Honors French – 11-12
Pre-Calc/Trigonometry (A) - 11	Honors Spanish – 11-12
Honors Aviations Ground School – 11 – 12	Honors Band – 12
	Honors Orchestra – 12
	Honors Chorus – 12

Advanced Placement classes:

AP classes are nationally recognized curricula, offering students the opportunity to earn college credit and/or recognition while attending high school. Expectations for assignments and assessments will be intense and demanding. **Beginning in the 2011-2012 school year, students are required to take the College Board Advanced Placement Test for each AP class taken, in order to receive weighted credit (5.0) for the class.** The test fee (\$89) is paid by the student, but the district will provide partial reimbursement of test fees for scores of 5 (\$60), 4 (\$40), and 3 (\$20) for each exam taken. A fee waiver is available for students eligible for the free or reduced lunch program. Applications for fee waivers are available in the Guidance Department.

Advanced Placement classes and the grade level at which they are typically offered:

Language and Composition - 11	Statistics – 11-12
Literature and Composition – 12	Calculus AB – 11-12
	Calculus BC – 12
American History – 10	
European History – 11	Biology – 11-12
	Chemistry – 11-12
Psychology – 10-12	Physics – 12
Economics – 12	
Studio Art – 12	Spanish - 12
Photography/2-D Design – 12	French – 12

College in High School Classes – The following classes offer students the opportunity to receive credit from the college or university listed below:

University of Pittsburgh Affiliated Courses

- AP Calculus AB
- Business Calculus
- Computer Programming with Visual Basic
- Computer Science/Intermediate Programming
- Basic Applied Statistics
- Web Page Design
- AP Physics

Community College of Allegheny County Affiliated Courses

- Pre-Calc/Trigonometry
- Pre-Calc Trigonometry (A)
- Introduction to Accounting
- Financial Accounting

Adams State College, Colorado

- Air Force JROTC – Journey into Aviation History
- Air Force JROTC – Science of Flight
- Air Force JROTC – Leadership Laboratory Activity

Duquesne University

- Television Productions II
- Television Productions III

Carlow University

- Economics/Law
- World Cultures

SAT Prep

SAT prep courses are designed to help students prepare for the math and reading portions of this critical test. Both are offered online and worth .25 credits each.

SAT Prep Offerings:

- SAT Critical Reading and Writing
- SAT Math

Online Enrichment Electives

In addition to regular class selections, up to 50 students will be afforded the opportunity to take one online enrichment class. Students taking online classes will complete coursework from an assigned study hall period. Priority for scheduling will be based on grade (seniors given first priority), and sequences of previously taken classes. Waterfront Learning, a component of the Allegheny Intermediate Unit, will be the provider for the classes listed below. Course descriptions can be found through the Waterfront Learning home page at <http://www.aiu3.net/Level3.aspx?id=6358>.

Mathematics
Advanced Algebra with Financial Application
AP Calculus BC
Consumer Math/Financial Math
Math Models & Applications
SAT Math - .25 credit

Language Arts
Honors Journalism I
SAT Critical Reading and Writing - .25 credit

Social Studies
Honors World History
AP Human Geography
Honors American Gov't - .5 credit
AP US Gov't & Politics - .5 credit
Native American Studies – Historical Perspectives - .5 credit
Native American Studies – Contemporary Perspectives .5 credit
African American Studies – Historical Perspectives - .5 credit
Consolidated Gov't - .5 credit

Technology Education
Chemical Engineering - .25 credit
Computer Engineering - .25 credit
Electrical Engineering - .25 credit
Mechanical Engineering - .25 credit

Science
Honors Marine Science
AP Environmental Science
Astronomy - .25 credit
Biotechnology - .25 credit
Epidemiology - .25 credit
Genetics - .25 credit
Intro to Tech. Sciences - .25 credit
Natural Disasters - .25 credit
Science of Computing - .25 credit
Sports Medicine - .25 credit
Sports Science - .25 credit
Stem Cells - .25 credit
Superstars of Science - .25 credit

World Languages
Chinese I
Chinese II
Chinese III
German I
German II
Latin I
Latin II
Latin III

PHS Online Electives
Applied Math
Health
Personal Training Prep Course
WWII: A Global Perspective

Forbes Road Career and Technology Center



The mission of Forbes Road Career and Technology Center is to provide a quality educational program that enables all individuals to achieve their fullest potential in the pursuit of high skill employment and advanced education. Each student shall be equipped with the technical, academic, human relations, and life-long learning skills necessary to adapt in a changing economy and to compete in the global marketplace.

Partner Schools

Allegheny Valley
East Allegheny
Gateway
Highlands
Penn Hills
Plum
Riverview
Wilkinsburg
Woodland Hills

Programs Offered

Advertising Design	Electrical Technology
Automotive Technology	Emergency Response Services
Building Construction Technology	Health Science Technology
Child Care Services	Heating, Ventilation & AC
Collision Repair Technology	Information Technology & Gaming
Computer Networking & Security	Landscape Design
Cosmetology	Machine Tool/Robotics
Culinary Arts	Multimedia Design
Diesel Technology	Warehouse Management



2013-14 Programs of Study



FORBES ROAD

CAREER AND TECHNOLOGY CENTER
607 BEATTY ROAD, MONROEVILLE, PA 15146-1550

Phone: 412-373-8100 • Fax: 412-373-3208 • Website: forbesroad.com

Construction

Building Construction Technology

Building Construction Technology students gain technical knowledge as well as practical hands-on training in the trade which includes carpentry, plumbing, electrical, masonry and blueprint reading. Individuals learn to apply technical knowledge and skills in the maintenance and repair of residential, office, apartment and other commercial buildings.



Heating, Ventilation & Air Conditioning

The program trains students to become qualified HVAC technicians and mechanics. A major portion of the instruction focuses on how to install, diagnose, service and maintain residential and commercial control wiring for HVAC.



Electrical Technology

Electrical Technology prepares students for entry level electrical and electronics careers. Their technical applications include green technology instruction within this state-of-the-art electrical laboratory. Computerized training equipment is utilized to prepare the students for careers in the "high-tech" electrical field.



Landscape Design



Landscape Design is aimed to prepare students to be employees of nurseries, greenhouses, florists, or landscape businesses. The curriculum includes turf management, landscape design and safety, pest and disease management, and irrigation. You will be practicing skills on our 42 acre campus and in the new greenhouse.

Information Technology

Advertising Design

The field of advertising and commercial art requires a person who possesses a wide range of creative skills. This curriculum includes production, illustrative techniques, computer graphics and photography. Students create art that requires them to apply their technical skills to an advertising workplace.



Computer Networking & Security

This exciting technical course prepares students to design, maintain and secure today's Information Technology (IT) Systems which support every aspect of our global economy. Network Security Specialists acting as Ethical Hackers prevent data loss from cyber attacks, network intrusions and viruses, protecting valuable personal and corporate data. Students will use the latest tools to gain the practical experience needed to earn valuable professional certifications such as A+, Network +, CISCO and Security +. Network Security Specialists are in high demand in law enforcements, large corporations, and government agencies including the FBI, CIA and NSA.

Information Technology & Gaming

This program provides students with a foundation in computer fundamentals, information management and a basic knowledge of video game development. Students receive instruction in a variety of office and business applications, the fundamentals of personal finance, as well as several computer programming languages, including some used for video game development.



Multimedia Design

This program allows students to be creative with design presentations for entertainment, industrial and commercial applications. This curriculum utilizes digital/video cameras and projectors in conjunction with computers. Students create animations, manipulate photographs, create presentations and web pages.

Manufacturing



Machine Tool/Robotics

In this program you will design and create metal objects that are used daily. Students will read blueprints and cut, shape and finish metal products on state-of-the-art machines. Student projects include making motorcycle, atv, and race car parts, machinist tools and paintball markers.

Electromechanical technicians engage in design, construction and programming of robotic systems. This program combines computer, electrical, and mechanical engineering skills to create robots. Students will design, develop, test and manufacture electronic and computer-controlled mechanical systems, such as robots and assembly machines. Students will have the opportunity to work on a BattleBots team and construct a robot from research and development, manufacturing, construction, inspection, and maintenance to the final competition.



Health

Emergency Response Services

This program is for students interested in pursuing a career, volunteer service or post-secondary education in emergency medical, law enforcement, fire or emergency management services. EMS provides training on a fully equipped on-site lab including a fire tower and fire truck.



Health Science Technology

This pre-nursing course gives ample opportunity for skill development through clinical experience in a health care setting. During this practical experience, students care for patients and perform skills under the direct supervision of a Registered Nurse. Students can also prepare for careers in Physical Therapy, Occupational Therapy and Medical Office areas.



Transportation



Automotive Technology

Automotive Technology provides instruction covering a wide range of skills for the high-tech automotive industry. This includes engines, computer diagnostics, maintenance and repair, and the opportunity to earn a PA State Inspection and Emissions Certification.

Collision Repair Technology

The program provides the skills necessary to transform a wrecked vehicle into a masterpiece. Students receive instruction with state-of-the-art equipment for replacing or repairing auto body parts. Students learn to customize vehicles with painting techniques using water borne base coats.



Diesel Technology

This program provides training covering diesel engines, as well as gasoline powered equipment and vehicles. Medium/heavy trucks and heavy equipment are part of every aspect of today's transportation, construction and manufacturing industries. Students can also obtain PA State Inspection and Emissions Certification.

Warehouse Management

This program will actively engage students in the process of receiving, storing, shipping, controlling and distributing products. Students will use conveyors, hand trucks and carts to transport materials/supplies. They will work in Forbes distribution center using technology to scan and track products.



Service Occupations



Cosmetology

This program builds skills for a variety of careers within the cosmetology industry. The course includes skills in performing procedures in areas as: hair, skin and nail care as well as salon operations. Upon completion of the required hours of instruction, students will be eligible to take the PA State Board Exam to obtain a cosmetology license.

Culinary Arts

The Culinary Arts course offers instruction in the commercial restaurant industry including: gourmet and fine dining, customer service, menu planning, cost-control, sanitation and hygiene. The curriculum provides students the opportunity to learn the complete food cycle including nutrition, ordering processes, menu design, equipment use and presentation skills.



Child Care Services

This program provides training through our ABC's Day Care facility. The course encompasses all the phases of early childhood development including physical, social, emotional and intellectual. The curriculum also includes nutrition, guidance, discipline, the value of play and science of child development.

Forbes Fast Facts...

- Forbes offers 18 State Approved Technical Programs
- Students receive 3 high school credits yearly at Forbes
- Students play sports and participate in sending school activities
- 9th grade students participate in Career Exploration programs
- Students can earn industry and Pennsylvania Skills Certificates
- Students participate in state and national competitions and WIN
- Students can earn college credits. Visit collegetransfer.net
- 62% of our 2012 graduates planned to attend two year, four year and trade post-secondary schools
- Students can earn money and gain valuable work experience
- 38% of our 2012 graduates are employed full or part-time

Ninth Grade Exploratory Program

Ninth grade students will explore three different programs to determine career interest and future choices. During the 4th quarter students will choose a program to continue with during their next school year.



Boyce Campus Middle College High School

BCMC is a “school of opportunity” for students who show potential for success but have not flourished in traditional high school classrooms. Many students who attend BCMC have a history of poor attendance, academic failure, and/or personal or family problems, which translate into alienation from school, home, and/or their peers. In a traditional high school setting, these students achieve well below their academic potential and/or feel disengaged from school.

BCMC places students in a college setting to motivate them to finish school and set goals for attending college or other post-secondary schooling. BCMC provides a guidance-based approach to learning experiences, with an emphasis on preparing students for higher education and career exploration. Instructors communicate care and personal concern in a nurturing learning environment, to help students develop positive views of education, establish solid relationships with teachers and peers, and improve their confidence and self-esteem.

Rank and Academic Merit

Official class rank will not be formally calculated beginning with the class of 2015. Percentage and numeric rank estimates will be available through the guidance department at the request of post-secondary institutions and scholarship organizations.

Students with a 4.0 grade point average and above will be awarded a medallion for “Academic Excellence” at commencement, lead the roll call procession, and earn the distinction of “Academic Excellence” on their high school diplomas.

Formal valedictorian and salutatorian standings will not be recognized, but may be merited through rank requests of post-secondary institutions and scholarship organizations.

General Class Offerings by Department

ENGLISH

Course No.	Course Title	Grade	Sem.	Level	Credits
100	English 9 - Composition	9	Y	2	1
101	English 9, Supported - Composition	9	Y	1	1
102	English 9, Honors - Composition	9	Y	3	1
110	English 10 - Literature	10	Y	2	1
111	English 10, Supported - Literature	10	Y	1	1
112	English 10, Honors - Literature	10	Y	3	1
120	English 11	11	Y	2	1
103/113/ 123	English Functions	9-11	Y	1	1
121	English 11, Supported	11	Y	1	1
122	AP English Language and Composition	11	Y	AP	1
130	English 12	12	Y	2	1
131	English 12, Supported	12	Y	1	1
132	AP English Literature and Composition	12	Y	AP	1
193-199	Language!	9-12	Y	1	1
140	Television Production I (elective)	10-12	S	2	.5
141	Television Production II (elective)	11-12	Y	2	1
142	Communication/Speech (elective)	11-12	S	2	.5
143	Television Productions III (elective)	12	Y	2	1
146	College Writing (elective)	11-12	S	2	.5
148	English Literature Keystone Review	11	S	1	.5
180	Yearbook (elective)	10-12	Y	2	1

SOCIAL STUDIES

Course No.	Course Title	Grade	Sem.	Level	Credits
200	Early American History	9	Y	2	1
210	Early American History, Supported	9	Y	1	1
201	Modern American History	10	Y	2	1
211	Modern American History, Supported	10	Y	1	1
202	World Cultures	11	Y	2	1
212	World Cultures, Supported	11	Y	1	1
203	Advanced Placement American History	11	Y	AP	1
204	Law/Economics	12	Y	2	1
213	Law/Economics, Supported	12	Y	1	1
206	Sociology	12	Y	2	1
207	World Geography	12	Y	2	1
208	Advanced Placement European History	12	Y	AP	1
216	AP Psychology (elective)	10-12	Y	AP	1
218	World War II: A Global Perspective (Online)	11-12	S	2	.5

MATHEMATICS

Course No.	Course Title	Grade	Sem.	Level	Credits
301	Algebra I w/lab	9-12	Y	2	1
302	Plane Geometry	9-12	Y	2	1
303	Plane Geometry (A)	9	Y	3	1
304	Algebra II (A)	9-10	Y	3	1
311	Algebra II	10-12	Y	2	1
312	Intermediate Algebra Concepts I	11	Y	1	1
313	Intermediate Algebra Concepts 2	12	Y	1	1
314	Pre-Calculus/Trigonometry (A)	11	Y	3	1
320	Integrated Algebra/Geometry	11-12	Y	1	.5
321	College Algebra	11-12	Y	2	1
322	Pre-Calculus/Trigonometry	11-12	Y	2	1
324	AP Calculus AB	11-12	Y	AP	1
330	Applied Statistics	11-12	Y	2	1
331	AP Statistics	11-12	Y	AP	1
332	Business and Social Sciences Calculus	12	Y	2	1
334	AP Calculus BC	12	Y	AP	1
335	Applied Mathematics (Online)	11-12	S	2	.5

SCIENCE

Course No.	Course Title	Grade	Sem.	Level	Credits
400	Introduction to Physical Science	9	Y	1	1
402	Biology (A)	9	Y	3	1
410	Intermediate Science I	11	Y	1	1
411	Biology	9-10	Y	2	1
413	Chemistry (A)	10	Y	3	1
420	Intermediate Science II	11-12	Y	1	1
421	Chemistry	10-12	Y	2	1
422	Anatomy & Physiology	10-12	Y	2	1
423	Introduction to Forensics	11-12	Y	3	1
425	Physics (A)	11	Y	3	1
430	Physics	11-12	Y	3	1
431	Intro to Geoscience	11-12	Y	2	1
435	AP Physics	12	Y	AP	1
433	AP Biology	11-12	Y	AP	1
434	AP Chemistry	11-12	Y	AP	1

MODERN WORLD LANGUAGES

Course No.	Course Title	Grade	Sem.	Level	Credits
500	Spanish I	9-12	Y	2	1
501	Spanish II	9-12	Y	2	1
502	Spanish III	10-12	Y	2	1
504	Spanish Honors IV	12	Y	3	1
505	AP Spanish	12	Y	3	1
510	French I	9-12	Y	2	1
511	French II	9-12	Y	2	1
512	French III	10-12	Y	2	1
515	French Honors IV	11-12	Y	3	1
516	AP French	12	Y	3	1

BUSINESS EDUCATION

Course No.	Course Title	Grade	Sem.	Level	Credits
600	Computer Applications for School and Business	9-12	Y	2	1
601	Web Site Design & Development	10-12	Y	2-3	1
602	Computer Programming with Visual Basic	10-12	Y	2-3	1
603	Computer Programming with Java	10-12	Y	2-3	1
610	Business Law and Finance	10-12	Y	2	1
611	Introduction to Accounting	10-12	Y	2	1
612	Financial Accounting	11-12	Y	2	1
613	Marketing	11-12	Y	2	1
614	International Business	11-12	Y	2	1
615	AP Economics	12	Y	AP	1

FAMILY AND CONSUMER SCIENCE

Course No.	Course Title	Grade	Sem.	Level	Credits
700	Life FACS	9	Y	1	1
701	Nutrition and Wellness	10-12	Y	1-2	1
703	Advanced Foods and Nutrition	11-12	Y	2	1
705	Family Relations/Child Development	10-12	Y	1-2	1
706	Growing With Children I	11-12	Y	1-2	1
707	Growing With Children II	12	Y	2	1
708	Independent Living on Your Own	12	S	1-2	.5

ENGINEERING AND TECHNOLOGY EDUCATION

Course No.	Course Title	Grade	Sem.	Level	Credits
750	Exploratory Engineering Technologies	9-10	Y	1-2	1
751	Intro to Materials Processing & Engineering	10-12	Y	2	1
752	Advanced Materials Processing & Engineering	11-12	Y	2	1
753	Structural Engineering and Design	12	Y	3	1
754	Applications I/II				
761	Intro to Robotics Engineering and Design	10-12	Y	2	1
762	Robotics Engineering and Design	11-12	Y	2	1
763/764	Advanced Robotics Engineering Design I/II	12	Y	3	1
775	Introduction to Engineering Design	10-12	Y	2	1
776	Engineering Design	11-12	Y	2	1
777	Architectural and Civil Engineering	11-12	Y	3	1

FINE ARTS

Course No.	Course Title	Grade	Sem.	Level	Credits
800	Intermediate Band	9	Y	2	1
801	Concert Orchestra	9-12	Y	2	1
802	Girls Chorus	9	Y	1-2	1
803	Jazz Ensemble	9-12	Y	2-3	1
810	Symphonic Band	10-12	Y	3	1
811	Concert Band	10-12	Y	2	1
812	Symphonic Orchestra	10-12	Y	2-3	1
813	Concert Choir	9-12	Y	1-3	1
814	Ladies Chorus	10-12	Y	1-3	1
815	Chamber Choir	10-12	Y	3	1
816	Class Piano	10-12	S	2	.5
817	Music Technology	10-12	S	2	.5
818	Music Theory	10-12	S	2	.5
819	Music Appreciation	10-12	S	2	.5
830	Honors Band	12	Y	3	1
831	Honors Orchestra	12	Y	3	1
832	Honors Chorus	12	Y	3	1
833	Beginning Winds	9-12	Y	1-3	1
850	Art I	9	Y	1-2	1
851	Art II	10-12	Y	1-2	1
852	Art III	11-12	Y	2	1
853	Art IV	12	Y	3	1
855	Crafts	11-12	Y	2	1
858	Crafts II	12	Y	2	1
856	Photography I	10-12	S	2	.5
857	Photography II	12	Y	2	1
854	AP Studio Art	12	Y	AP	1
859	AP Photography: 2-D Design	12	Y	AP	1

PHYSICAL EDUCATION

Course No.	Course Title	Grade	Sem.	Level	Credits
900	Physical Education	10-12	Y	1-2	.5
901	Physical Education/Swim	9	Y	1-2	.5
910	Health	9	Y	1-2	.5
911	Health (Online)	9-12	S	1-2	.5
921	Strength, Flexibility, and Conditioning (elective)	11-12	S	2	.5
922	Strength II (elective)	12	S	2	.5
923	Personal Training Prep Course (Online)	11-12	S	2	.5

AIR FORCE JR. ROTC

Course No.	Course Title	Grade	Sem.	Level	Credits
912	AFJROTC Journey Into Aviation History	9	Y	2	1
914	AFJROTC Science of Flight	10-12	Y	2	1
915	AFJROTC Advanced Drill	10-12	Y	2	1
917	AFJROTC Basic Survival	10-12	Y	2	1
918	AFJROTC Advanced Survival	10-12	Y	2	1
920	Leadership Laboratory Activity	9-11	S	2	.5

VOCATIONAL TECHNICAL EDUCATION

Course No.	Course Title	Grade	Sem.	Level	Credits
990	Forbes Career & Technology Center 1 st Year	10-12	Y	2	3
991	Forbes Career & Technology Center 2 nd Year	11-12	Y	2	3
992	Forbes Career & Technology Center Apprenticeship Program	11-12	Y	2	3
993	Forbes Co-op	12	Y	2	3

ENGLISH DEPARTMENT – Class Descriptions

GRADE	HONORS	ACADEMIC	ACADEMIC SUPPORT
9	English 9 Honors - Composition (102)	English 9 - Composition (100)	English 9, Supported - Composition (101) Language Program
10	English 10 Honors - Literature (112)	English 10 - Literature (110)	English 10, Supported - Literature (111)
11	AP English Language and Composition (122)	English 11 (120)	English 11, Supported (121)
12	AP English Literature and Composition (132)	English 12 (130)	English 12, Supported (131)

100 English 9 - Composition

Grade 9

Level 2

1 Credit (Year)

The Fundamental focus of 9th Grade English builds upon the elements of literature and composition through concurrent instruction of vocabulary, grammar and usage, and reading for meaning. The course will be dedicated to developing the skills of literature comprehension and analysis, and writing, especially in the areas of expository, persuasive and research-based composition. Students in 9th Grade English will continue to develop the skills necessary to reach high achievement levels on the Keystone Exams and other forms of standardized testing. Students will read a variety of fiction and non-fiction works, developing skills and strategies to extract the author's meaning and purpose.

Course Requirements: *Seven Habits of Highly Effective Teens* – Sean Covey

101 English 9, Supported - Composition

Grade 9

Level 1

1 Credit (Year)

This course is based on the academic 9th grade curriculum, but is intended to provide students with more opportunity to practice and develop the reading and writing skills necessary for proficiency on the Keystone Exams, success in the classroom, and college or career readiness. Students will focus on reading strategies in fiction and non-fiction, and develop writing skills in expository, persuasive and research-based compositions.

Course Requirements: *Seven Habits of Highly Effective Teens* – Sean Covey

102 English 9, Honors - Composition

Grade 9

Level 3

1 Credit (Year)

Students will focus primarily on expository, persuasive, and research writing in the enriched setting of an honors level class. Intended for the student who is advanced in reading and writing in 8th grade, students will be able to express ideas through expository and persuasive writing, building upon the elements of composition through concurrent instruction of vocabulary, grammar and usage and reading for meaning. Students will continue to develop the skills necessary to reach high achievement levels on the English Composition Keystone Exam and other forms of standardized testing. Students will read a variety of fiction and non-fiction works, developing skills and strategies to extract the author's meaning and purpose in an enriched environment.

Course Requirements: *Seven Habits of Highly Effective Teens* – Sean Covey, *A Tale of Two Cities* – Charles Dickens, *A Midsummer Night's Dream* – William Shakespeare

PREREQUISITE: Teacher recommendation

110 English 10 - Literature

Grade 10

Level 2

1 Credit (Year)

Students will be able to gain understanding and think critically through reading, writing, and speaking. Students will be able to express ideas through expository and persuasive writing in preparation for

the Keystone Exam. The fundamental focus of English 10 builds upon the elements of literary analysis and reading for meaning. This course should correspond to the Keystone Assessment Anchors and eligible content and culminate with a proficient score on The Keystone Exam in Literature. This course draws short stories, novels, non-fiction, and poetry from the best of the world's literature to teach literary techniques and terminology.

REQUIRED SUMMER READING: *The Last Lecture* by Randy Pauch

PREREQUISITE: Teacher recommendation and guidance approval.

111 English 10, Supported - Literature

Grade 10

Level 1

1 Credit (Year)

The English 10 program is intended for students who have experienced academic difficulties with their English program. The instruction concentrates on improving skills in reading, writing, and speaking. Students will be able to express ideas through expository and persuasive writing in preparation for the Keystone Exam. The fundamental focus of English 10 builds upon the elements of literary analysis and reading for meaning. This course should correspond to the Keystone Assessment Anchors and eligible content and culminate with a proficient score on The Keystone Exam in Literature. This course draws short stories, novels, non-fiction, and poetry from the best of the world's literature to teach literary techniques and terminology.

REQUIRED SUMMER READINGS: *The Last Lecture* by Randy Pauch

PREREQUISITE: Teacher recommendation and guidance approval.

112 English 10, Honors - Literature

Grade 10

Level 3

1 Credit (Year)

Concentrating on a variety of literary genres, this course is designed for the student who has demonstrated an exceptional academic aptitude and significant interest in the areas of reading, writing, speaking, and listening. Students will continue to read critically and analyze literature such as non-fiction, fiction, drama, and poetry at an accelerated pace. Accompanying the extensive reading of literature during the course, the student will develop and polish composition and oral presentation skills. Along with taking the Keystone Literature Exam at the end of the course, students will also be assessed through discussion, performance, projects, tests, writing, and quizzes.

REQUIRED SUMMER READINGS: *Merchant of Venice* by Shakespeare, *All Quiet on the Western Front* by Remarque, and *The Last Lecture* by Randy Pauch

PREREQUISITE: Teacher recommendation and guidance approval.

120 English 11

Grade 11

Level 2

1 Credit (Year)

This course of study has been developed as a two-semester required English course in American literature on the eleventh grade level. Through the study of American literature, both fiction and non-fiction, students will be able to analyze and interpret literary devices and structures to understand author's purpose. Students will read American works, including novels, short stories, poetry, essays, articles, and drama. Students in this course will become proficient in reading and analytical strategies necessary for academic and personal success. In addition, students will demonstrate their understanding of literature through varied composition styles.

REQUIRED SUMMER READING: *The Absolutely True Diary of an American Indian*

PREREQUISITE: Teacher recommendation and guidance approval.

121 English 11, Supported

Grade 11

Level 1

1 Credit (Year)

This supported program is intended for students who have experienced academic difficulties with their English program. Through the study of American literature, both fiction and non-fiction, students will be able to analyze and interpret literary devices and structures to understand author's purpose. Students will read early American through contemporary works, including novels, short stories, poetry, essays, articles, and drama.

Students in this course will become proficient in reading and analytical strategies necessary for academic and personal success. In addition, students will demonstrate their understanding of literature through varied composition styles.

REQUIRED SUMMER READING: *The Absolutely True Story of an American Indian*

PREREQUISITE: Teacher recommendation and guidance approval.

122 AP English Language and Composition

Grade 11

Level AP

1 Credit (Year)

AP English Language and Composition is designed for highly motivated and extremely capable students who are interested in earning Advanced Placement credit through taking the A. P. Language and Composition Exam. The course provides a college level study of American literature primarily through the exploration of fiction and nonfiction works in the American literary canon. Special emphasis is placed on critically reading and writing of expository, argumentative, and analytical prose in order to prepare students for the English Language and Composition Exam administered in May. Units are designed to reflect a literacy-based approach to English instruction; therefore, students will read works from a variety of genres focused on a major American literary theme. In order to receive weighted grading credit for the class, students must take the Advanced Placement Exam (see p. 4).

REQUIRED SUMMER READING: *Fast Food Nation*—Eric Schlosser, *In Cold Blood*—Truman Capote, *The Awakening* – Kate Chopin, *A Separate Peace* – John Knowles

PREREQUISITE: Teacher recommendation, a “B” average or better in sophomore English and guidance approval.

130 English 12

Grade 12

Level 2

1 Credit (Year)

Students study British literature from the Anglo Saxon period to the present time. Students will also read a 19th century novel and one modern novel. Several written papers may be required (expository, persuasive, and narrative) at the teacher’s discretion.

COURSE REQUIREMENTS: State-approved graduation project

REQUIRED SUMMER READING: Choose one of the following novels: *Great Expectations*, *Jane Eyre*, or *All Creatures Great and Small*

PREREQUISITE: Teacher recommendation and guidance approval.

131 English 12, Supported

Grade 12

Level 1

1 Credit (Year)

This supported program is intended for students who have experienced academic difficulties with their English program. Students study British literature from the Anglo Saxon period to the present time. Students will also read a 19th century novel and one modern novel. Several written papers may be required (expository, persuasive, and narrative) at the teacher’s discretion.

COURSE REQUIREMENTS: State-approved graduation project

REQUIRED SUMMER READING: *Tuesdays With Morrie*

PREREQUISITE: Teacher recommendation and guidance approval.

132 Advanced Placement English Literature and Composition

Grade 12

Level AP

1 Credit (Year)

This course is designed for student who has demonstrated a high aptitude and proficiency in the language arts. Students have an opportunity to study a wide variety of traditional and contemporary works including novels, plays, poetry and short stories, with emphasis on critical thinking, discussion and analytical writing skills. In order to receive weighted grading credit for the class, students must take the Advanced Placement Exam (see p. 4).

COURSE REQUIREMENTS: State-approved graduation project (research paper and presentation)

REQUIRED SUMMER READING: *Tess of the D’Urbervilles*—Hardy, *How to Read Literature Like a Professor*—Thomas C. Foster

PREREQUISITE: Teacher recommendation and guidance approval.

140 Television Productions I (Elective Offering)

Grade 10-12

Level 2

.5 Credit (Sem.)

Television Productions I is offered to sophomores, juniors and seniors as an elective. Students will be introduced to the basic techniques of audio-visual production. Units will focus on theory as well as the hands-on use of television cameras, sound, lighting, and editing equipment. Students will become proficient in all aspects of video production from pre-production to post-production. Evaluation will consist of written exams, proficiency, quizzes on equipment and technique, and completion of video projects.

141 Television Productions II (Elective Offering)

Grade 11-12

Level 2

1 Credit (Year)

This course will provide an opportunity for students to enhance their speaking and peer-mentoring skills while learning the basic techniques of audio-visual production. Emphasis will be placed on the talent and technical requirements necessary for television production. The course will cover the use of audio equipment, cameras, a switcher, and character generator, as well as the art of editing. In addition, students will have a hands-on experience using a storyboard and preparing for an interview. As students refine their video skills from pre-production to post-production, they will be producing shows that will be broadcast to the high school student body and to the community on channel 23. Students will produce the annual telethon in collaboration with the National Honor Society. Evaluation will consist of written exams and the proficiency evidenced in the creation, formulation, storyboard, writing, direction, and production of television show projects by a given deadline. This course requires extensive filming after school and in the evenings.

143 Television Productions III (Elective Offering)

Grade 12

Level 2

1 Credit (Year)

This course will refine the skills that the students learned in Television Production II and allow students the opportunity to further enhance those skills. Emphasis will be placed on the talent and technical requirements necessary for television production. Students will create and product their own television series. The series will be shown on Verizon Fios and Comcast. Students will also produce the annual telethon in collaboration with the National Honor Society. Evaluation will consist of the proficiency evidenced in the creation, formulation, storyboard, writing, direction, and production of television show projects by a given deadline. Extensive filming after school and in the evenings is required.

142 Communication/Speech (Elective Offering)

Grade 11-12

Level 2

.5 Credit (Sem.)

This course is designed to introduce students to the fundamentals of speech and the vast field of communication. Students will present research through various forms of media. It includes units in variety of speech types and topics. Other units offer students a basic overview of a variety of communication mediums. Students will enhance their research and writing skills as they improve their speaking skills.

146 College Writing (Elective Offering)

Grade 11-12

Level 2

.5 Credit Sem.

This course is designed for college bound students who would like to improve their composition skills. Students will write journals, personal essays, analytical essays, persuasive essays, and other types of writing that might be assigned in a freshman introductory composition course. Course objectives include writing grammatically correct prose, improving writing style, and using the computer to produce documents and manuscripts.

148 English Literature Keystone Review

Grade 11

Level 1

.5 Credit

2/6 Day Cycle

Designed for students to achieve proficiency in reading, analyzing and responding to literature, this course will culminate in a retake of the Keystone Literature Exam. Students will focus on strategies to read passages in fiction and non-fiction, identifying main ideas, inferring meaning from context clues, and analyzing the impact of figurative language and literary devices. The curriculum will be based on the Keystone Eligible Content for Literature.

180 Yearbook (Elective Offering)

Grade 10-12

Level 2

1 Credit (Year)

This course is designed for students in any grade level. The course will teach the basic skills needed to produce the Criterion Yearbook. Students will acquire skills in layout, design, writing copy, conducting interviews, photography, cropping pictures, and business management. Students will extensively learn and utilize PageMaker and Josten's Yeartech programs. This course will also emphasize the concept of a yearbook as a photojournalistic product with a theme-led structure, a reference tool, and a permanent record of the school year.

PREREQUISITE: Approval by application and teacher recommendation only. All students wishing to continue in the following year must re-apply to the yearbook instructor.

193-199 Language

Grade 9-12

Level 1

1 credit (Year)

The LANGUAGE! program weaves together all elements of literacy to create a comprehensive curriculum. Students with reading delays usually exhibit deficits in all aspects of reading and writing. LANGUAGE! instruction helps students make rapid gains in reading and writing. LANGUAGE! is based on proven literacy research. It is comprehensive, providing direct instruction in six important areas of language arts; phonemic awareness and phonics; word recognition and spelling; vocabulary and morphology; grammar and usage; listening and reading comprehension; and speaking and writing. Overall improvement depends upon corresponding growth across the spectrum of these skills.

PREREQUISITE: Teacher recommendation and placement test for special education students

SOCIAL STUDIES DEPARTMENT – Class Descriptions

GRADE	HONORS	ACADEMIC	ACADEMIC SUPPORT
9	Early American History (200)	Early American History (200)	Early American History, Supported (210)
10	Modern American History (201)	Modern American History (201)	Modern American History, Supported (211)
11	AP American History (203)	World Cultures (202)	World Cultures, Supported (212)
12	AP European History (208)	Law/Economics (204) Sociology (206) World Geography (207)	Law/Economics, Supported (213)

Three of the four required credits are mandated courses for grades 9-11. Seniors select their fourth credit from the grade 12 Social Studies listing (not to include elective classes).

200 Early American History

Grade 9

Level 2

1 Credit (Year)

The course covers the time period of Indian discovery to the end of the War Between the States. With this as a foundation, the course proceeds to emphasize the following major areas: The American Indian, Discovery and Exploration, Colonial, Revolution, Articles of Confederation, Constitution, Expansion/Regionalism, War of 1812, Mexican War, Civil War and Reconstruction Era. Current events are also included throughout the course.

210 Early American History, Supported

Grade 9

Level 1

1 Credit (Year)

American History I Academic Support mirrors the American History I-Part I curriculum. Instructional support and academic assignments vary depending upon class needs. The course covers the time period of Indian discovery to the end of the War Between the States. With this as a foundation, the course proceeds to

emphasize the following major areas: The American Indian, Discovery and Exploration, Colonial, Revolution, Articles of Confederation, Constitution, Expansion/Regionalism, War of 1812, Mexican War, Civil War, and the Reconstruction Era. Current events are also included throughout the course.

201 Modern American History

Grade 10

Level 2

1 Credit (Year)

This course covers our nation's history from post reconstruction to the present. Major topics addressed are The Growth of Labor, Industrialization, Immigration, Imperialism, Progressivism, World War I, The Great Depression, World War II, Cold War, The Civil Rights Movement, End of Iron Curtain, and the War on Terror. Current events are included throughout the course.

PREREQUISITE: Completion of American History I with a passing grade.

211 Modern American History, Supported

Grade 10

Level 1

1 Credit (Year)

American History II Academic Support mirrors the American History II-Part II curriculum. Instructional support and academic assignments vary depending upon class needs. The course covers the restoration of our country, as a result of the Civil War, to the present day. Using this foundation, the course proceeds to emphasize more involved movements and trends which have occurred in this country such as: The Westward Movement-The Growth of Labor, Industry and Business-Immigration-The Emergence of the U.S. as a World Power (W.W.I)-The depression-The Global War (W.W.II)-The Post War Era-Present. Current events are also included throughout the course content.

PREREQUISITE: Completion of American History I, Supported with a passing grade.

202 World Cultures

Grade 11-12

Level 2

1 Credit (Year)

This course is designed to provide the student with an understanding and appreciation of the following geographic regions and countries: Europe, the Soviet Union, South Asia, East Asia, Africa, Latin America, and the Middle East. Emphasis will be placed on the major cultural and political structures of the world, with emphasis on the historic development of the culture and its present pattern. This course is also designated a Carlow University "College in High School" course, designed to mirror *Carlow's course HS 151-World Cultures, Their Histories and Developments*. Students are able to earn three college credits through Carlow University if they earn a C or better for the year and if they pay a fee to Carlow University.

212 World Cultures, Supported

Grade 11

Level 1

1 Credit (Year)

World Cultures Academic Support mirrors the World Cultures curriculum. Instructional support and academic assignments vary depending upon class needs. This course is designed to provide the student with an understanding and appreciation of the following geographic regions and countries: Europe, the Soviet Union, South Asia, East Asia, Africa, Latin America, and the Middle East. Emphasis will be placed on the major cultural and political structures of the world, with emphasis on the historic development of the culture and its present pattern.

203 Advanced Placement American History

Grade 11

Level AP

1 Credit (Year)

Advanced Placement American History is a college level course in American History. Examinations, essays, research work, and supplemental reading assignments are similar to those given at the university level, in an American History survey course. This course is offered to those students who excel in the social studies and/or those students who have an intense interest in American History.

COURSE REQUIREMENTS: Students will be required to complete a summer assignment assigned by the classroom teachers. A possibility of up to three novels may be assigned over the course of the summer and school year. Students will also complete a research assignment. In order to receive weighted grading credit for the class, students must take the Advanced Placement Exam (see p. 4). If a student takes Advanced Placement American History in grade 11, they must take Advanced Placement European History or World Cultures in grade 12 to meet Pennsylvania Chapter 4 standards.

PREREQUISITE: Teacher recommendation.

204 Economics/Law

Grade 12

Level 2

1 Credit (Year)

This course is designed to provide the student with foundations in both economics and in law. Semester one focuses on economics and semester two focuses on law. During the economics semester, students will examine how people produce goods and services necessary to satisfy their needs and wants. The course will be centered on consumer economics and basic economic theory. During the law semester, students will examine the origins of American Law, criminal law and juvenile justice, tort law, and the individual's rights and liberties. Extensive projects, essay writing, oral presentations, as well as homework, discussion, and tests are important components of this course. A major research paper and major projects are required.

College Credit Option:

This course has been approved for college credit from Carlow University' College in High School Program for the economics portion of the course. Students who choose this option must maintain a "C" or better to receive 3.0 college credits at the discounted rate of \$50.00 per credit, or \$150.00, from Carlow University. Should the student enroll at Carlow University upon high school graduation, this course will be applied to Carlow's graduation requirements. Should the student enroll at another college, or university, the acceptance of transfer of credits from Carlow's CHS program is determined by that college or university. Most colleges and universities generally accept CHS credits as electives or general graduation requirements.

213 Economics/Law, Supported

Grade 12

Level 1

1 Credit (Year)

Law/Economics, Supported mirrors the academic Law/Economics curriculum. Instructional support and academic assignments vary depending upon class needs. This course is designed to provide the student with foundations in both economics and in law. Semester one focuses on economics and semester two focuses on law. During the economics semester, students will examine how people produce goods and services necessary to satisfy their needs and wants. The course will be centered on consumer economics and basic economic theory. During the law semester, students will examine the origins of American Law, criminal law and juvenile justice, tort law, and the individual's rights and liberties. Homework, discussion, and tests are important components of this course.

206 Sociology

Grade 12

Level 2

1 Credit (Year)

Sociology is structured to challenge the minds of today's student with contemporary subject matter of greater depth. Attention is given to the building of human nature, the social self, the communicative human being, the group member with socialized wishes and drives, and current social issues. Students are required to prepare a research project using community resources and multimedia methodology for presentation in their sociology class. The course is suggested for seniors with an interest in the humanities and the social sciences.

207 World Geography

Grade 12

Level 2

1 Credit (Year)

This course has been constructed to provide the student with the basic map skills necessary to function in everyday life with respect to news, travel and general conversation. It also attempts to explain the many interrelationships between man's cultures and his physical environment, relationship between man and his environment. This understanding of man's interdependence with the earth is accomplished through the study of physical, cultural, economic and demographic (population) factors which are analyzed through the techniques of geographic thinking. A second semester project must be completed by the student.

208 Advanced Placement European History

Grade 12

Level AP

1 Credit (Year)

Advanced Placement European History is a college level course in European history (1450-present). It is designed specifically to prepare all students to be successful on the College Board Advanced Placement European History exam. Highly developed critical thinking skills and proficiency in historical essay writing are necessary. Work is designed to be similar to that given at the university level.

COURSE REQUIREMENTS: All students will be responsible for completing all parts of the summer assignment, as well as research projects and presentations for both the mid-term and final exam grades. In

order to receive weighted grading credit for the class, students must take the Advanced Placement Exam (see p. 4).taking the Advanced Placement Examination.

PREREQUISITE: AP Potential

216 AP Psychology

Grades 10-12

Level AP

1 Elective Credit

The AP Psychology course is a college level course designed to introduce students to the study of behavior and mental processes of human beings and animals. In this course, students will be exposed to how people learn and think, the process of human development and human aggression, selflessness, intimacy, and self-reflection. They'll study core psychological concepts while learning to gauge human reactions, gather information, and form meaningful conclusions. In order to receive weighted grading credit for the class, students must take the Advanced Placement Exam (see p. 4). PREREQUISITE: AP Potential

218 World War II: A Global Perspective (Online)

Grades 11-12

Level 2

.5 Credit (Sem.)

This course will explore World War II from a global perspective. Students will build upon their prior knowledge of World War II to gain a deeper understanding of the war and its impact on our world today. This course is designed for students who are interested in analyzing such topics as the causes of war and peace; strategy, tactics and technologies in the major theatres; political and military leadership; and war crimes. This course will also address moral controversies raised by the war. This course is intended to give students the opportunity to study World War II in depth and offer an analysis of the war as seen from different areas of the world.

PREREQUISITE: Completion of American History I and American History II, Supported with a passing grade.

MATHEMATICS DEPARTMENT – Class Descriptions

GRADE	HONORS	ACADEMIC	ACADEMIC SUPPORT
9	Plane Geometry (A) (303)	Plane Geometry (302)	Algebra I w/lab (301)
10	Algebra II (A) (304)	Algebra II (311)	Algebra I w/lab (301) Plane Geometry (302)
11	Pre-Calc/Trig (A) (314) AP Calculus (AB) (324)	College Algebra (321) Pre-Calc Trig (322) Applied Mathematics (335)	Intermediate Algebra Concepts I (312) Plane Geometry (302)
12	AP Calculus (AB) (324) AP Calculus (BC) (334) AP Statistics (331)	Pre-Calc Trig (322) Applied Statistics (330) Business Calculus (332) AP Calculus AB (324)	Intermediate Algebra Concepts II (313) College Algebra (321)

NOTE: The Math Department suggests that students have the use of a Texas Instruments TI-84 Plus series graphing calculator to use in class and for homework assignments. These calculators are designed to enhance students' understanding of math concepts and will be of use in courses beginning with Algebra I.

301 Algebra I w/lab

Grade 9-12

Level 2

1 Credit (Year)

Algebra develops, through symbolism and mathematical abstraction, algebraic concepts and methods that will enable students to represent situations that will involve variable quantities with expressions, equations, inequalities, and matrices. Students will demonstrate technical facility with algebraic transformations and use to solve equations, inequalities, and linear systems. Throughout the course students will use appropriate technology, including TI graphing calculators, to estimate, measure, and compute and solve theoretical and practical problems.

302 Plane Geometry

Grade 9-12

Level 1-2

1 Credit (Year)

This course is developed through axioms and postulates with emphasis on deductive reasoning. Geometric concepts relating angles, segments, areas, triangles and other polygons are proven. The students in this course learn the relationships of geometric figures as well as develop algebraic concepts and methods that will enable students to represent situations that involve variable quantities with expressions and equations. Throughout the course students will use appropriate technology, including TI graphing calculators, to estimate, measure, compute, and solve theoretical and practical problems. The class is designed for students with needs for academic supports.

PREREQUISITE: "C" or better in Algebra I

303 Plane Geometry (A)

Grade 9

Level 3

1 Credit (Year)

This course is developed through axioms and postulates with emphasis on deductive reasoning. Geometric concepts relating angles, segments, areas, triangles and other polygons are proven. The students in this course develop logical thinking while learning the relationship of geometric figures.

PREREQUISITE: "B" or better in advanced Algebra I or "A" in Algebra I with teacher recommendation.

304 Algebra II (A)

Grade 9-10

Level 3

1 Credit (Year)

This course is designed for those students with special skills and knowledge in mathematics. The subject matter is essentially the same as the above Algebra II course, but the material is developed in greater depth. Students will use graphing calculators to enhance the understanding of algebraic concepts. Therefore, it is recommended that they purchase a TI-84 Plus calculator for this course and successive courses.

PREREQUISITE: Accelerated Algebra I and Geometry with a "B" or an "A" in both Algebra I and Geometry with teacher recommendation.

311 Algebra II

Grade 10-12

Level 2

1 Credit (Year)

Algebra II develops an understanding of the ideas of linear equations, quadratic equations, rational numbers, irrational numbers, imaginary numbers, functions, and operations with real exponents. Students will use graphing calculators to enhance the understanding of algebraic concepts. Therefore, it is recommended that they purchase a TI-84 Plus calculator for this course and successive courses.

PREREQUISITE: A grade of "C" or better in Plane Geometry and Algebra.

312 Intermediate Algebra Concepts I

Grade 11

Level 1

1 Credit (Year)

This is the first course of two in the Intermediate Algebra Concepts sequence. In Intermediate Algebra Concepts I, students will build upon the concepts learned in Algebra 1 with the additional support of more time to develop concepts. This course develops an understanding of the ideas of linear equations, systems of equations, inequalities, quadratic equations, absolute value equations, and probability. Students will use graphing calculators to enhance the understanding of algebraic concepts.

PREREQUISITE: Algebra I and Plane Geometry.

313 Intermediate Algebra Concepts II

Grade 12

Level 1

1 Credit (Year)

This is the second course of two in the Intermediate Algebra Concepts sequence. In Intermediate Algebra Concepts 2, students will build upon the concepts learned in Intermediate Algebra Concepts 1 with the same additional support of more time to develop concepts. This course develops an understanding of quadratic and exponential functions, other classes of functions, patterns, sequences, series, data analysis and statistics. Students will use graphing calculators to enhance the understanding of algebraic concepts.

PREREQUISITE: Intermediate Algebra Concepts I or a "D" or below in Algebra II

314 Pre-Calculus with Trigonometry a Graphing Approach (A)

Grade 10-11

Level 3

1 Credit (Year)

4 Credits CCAC

This course explores polynomials, trigonometry, logarithms, and exponentials and their functional characteristics. Students will develop both algebraic and graphic support for their answers. Graphing calculators will be used in class daily and for homework assignments. Students will need to either sign out a graphing calculator from their teacher daily or purchase their own TI-84 Plus.

PREREQUISITE: Grade of "B" or better in advanced Algebra II or an "A" in Algebra II with teacher recommendation.

320 Integrated Algebra/Geometry

Grade 12

Level 2

No Math Credit

This course is designed for those seniors who have not achieved a proficient rating on the grade 11 PSSA Mathematics exam. The course will reinforce the grade 11 Mathematics Standards as well as acquaint the student with the more practical uses of mathematical ideas. Each grading period consists of a real life application project in addition to traditional forms of assessment. Students will focus on preparing for the PSSA retest in October, remediating concepts learned in previous courses, and preparing for future courses and encounters in mathematics.

PREREQUISITE: teacher / administrative recommendation

321 College Algebra

Grade 11-12

Level 2

1 Credit (Year)

Students will build an understanding of algebra through real world problems with data and technology. Skill building and concept understanding are layered and integrated throughout the course. Students will shift from learning discrete mechanical rules to exploring how algebra is used in the social and physical sciences. Concepts covered will include linear functions, exponential functions, logarithmic functions, quadratic functions, and polynomial functions.

PREREQUISITE: A "C" or better in Algebra II with teacher recommendation. Students that have a "B" or higher in Algebra II should take pre-calc / trigonometry. Students that take Pre-Calc / Trigonometry and earn a "D" can also take this course with teacher recommendation.

322 Pre-Calculus with Trigonometry a Graphing Approach

Grade 12

Level 2

1 Credit (Year)

This course explores polynomials, trigonometry, logarithms, and exponentials and their functional characteristics. Students will develop both algebraic and graphic support for their answers. Graphing calculators will be used in class daily and for homework assignments. Students will need to either sign out a graphing calculator from their teacher daily or purchase their own TI-84 Plus.

PREREQUISITE: Passing Algebra I, Geometry, and a "C" or better in Algebra II.

324 Advanced Placement Calculus AB

Grade 11-12

Level AP

1 Credit (Year)

4 Credits U. of Pittsburgh

This course is designed for students interested in majoring in mathematics, engineering or physical science. This fifth year of college level mathematics examines calculus with some integrated analytic geometry. In the first semester differential calculus is developed with its applications while the second semester is devoted to integral calculus and some of its applications. Students should own a TI-84 Plus calculator for use in this

course. In order to receive weighted grading credit for the class, students must take the Advanced Placement Exam (see p. 4).

PREREQUISITE: A grade of “B” or better in advanced Trigonometry or an “A” in trigonometry with teacher recommendation.

330 Basic Applied Statistics

Grade 11-12 Level 2 1 Credit (Year) 4 Credits U. of Pittsburgh

This course teaches methods and terminologies of descriptive and inferential statistics. Students who complete this course will be able to conduct their own analyses of standard one-sample or two-sample data sets, follow statistical reasoning and read statistical reports with understanding. Introductory topics in linear regression, analysis of variance and contingency table analysis will also be covered.

PREREQUISITE: Algebra II with a “B” or better and a “C” or better in Pre-Calc / Trig or teacher recommendation.

331 Advanced Placement Statistics

Grade 11-12 Level AP 1 Credit (Year)

The purpose of the AP course is to introduce students to the major concepts and tools for collecting, analyzing, and drawing conclusions from data. Students will be exposed to Exploring Data, Planning a Study, Anticipating Patterns, and Statistical Inference. In order to receive weighted grading credit for the class, students must take the Advanced Placement Exam (see p. 4).

PREREQUISITE: Pre-Calculus/Trigonometry with an “A” (Advanced Pre-Calculus/Trigonometry with a “B” or better) and teacher recommendation.

332 Business and Social Sciences Calculus

Grade 12 Level 2 1 Credit (Year) 4 Credits U. of Pittsburgh

The course is designed for college bound students planning to major in areas of study other than engineering, science or mathematics. This course does not assume knowledge of trigonometry. The object of the course is to accommodate the student interested in accounting, business, biological sciences, economics, the social sciences and liberal arts.

PREREQUISITE: “B” in Algebra II, Pre-Calc/Trig with a grade of “C” or better and teacher recommendation.

334 Advanced Placement Calculus BC

Grade 12 Level AP 1 Credit (Year)

This is the second course in the basic college scientific calculus sequence. It is intended for all mathematics, science, and engineering majors. Calculus BC investigates techniques of integration, applications of differentiation and integration, sequences, Taylor Series, and the calculus of functions in parametric and polar form. Special emphasis is placed on problem solving in real-world contexts. In order to receive weighted grading credit for the class, students must take the Advanced Placement Exam (see p. 4). Students can also earn four AP college credits for this course.

PREREQUISITE: A grade of “B” or better in Advanced Placement Calculus AB and teacher recommendation.

335 Applied Mathematics (Online)

Grades 11-12 Level 2 .5 Credit (Semester)

Applied Mathematics is designed to build on secondary math skills by using algebraic, graphical, and geometric reasoning to recognize patterns and structure, to model information, and to solve problems within various disciplines. Mathematical methods will be applied to solve real-life problems involving money, data, chance, patterns, music, design, and science. This is a one semester on-line course. A graphing calculator will be needed to complete most assignments.

UNIVERSITY OF PITTSBURGH AFFILIATED PROGRAMS

The following courses are offered under the auspices of the University of Pittsburgh and provide the student with the opportunity of receiving college credit: Advanced Placement Calculus AB, Basic Applied Statistics, Business and Social Sciences Calculus, Advanced Placement Physics and a student may receive credit by paying the university's tuition fee which is set yearly at the discretion of the university. Although not guaranteed, these credits have been accepted by many colleges and universities. RECEIVING CREDIT FROM THE UNIVERSITY OF PITTSBURGH IS OPTIONAL.

SCIENCE DEPARTMENT – Class Descriptions

GRADE	HONORS	ACADEMIC	ACADEMIC SUPPORT
9	Biology (A) (402)	Biology (411)	Introduction to Physical Science (400)
10	Chemistry (A) (413)	Chemistry (421) Anatomy and Physiology (422) Forensics (423)	Biology (411)
11	Physics (A) (425)	Physics (430) Intro to Geoscience (431)	Intermediate Science I (410) Chemistry (421)
12	AP Biology (433) AP Chemistry (434) AP Physics (435)	Anatomy and Physiology (422) Forensics (423) Physics (430) Intro to Geoscience(431)	Intro to Geoscience (431) Intermediate Science II (420)

400 Introduction to Physical Science

Grade 9 Level 1 1 Credit (Year)

This course is designed to give students an understanding of the interrelationship between matter and energy. Students will learn how to make observations and record data in the different measurement systems. They will also learn about the scientific method, atomic structure and how to use the periodic table. The fundamentals of chemistry will be explored: properties of matter, the differences between elements and compounds, acid/base chemistry, and how chemicals react. The fundamentals of physics will be explored: motion, force, work and energy. Hands-on activities, computer activities and laboratory work will be used to reinforce these concepts. This course is designed to prepare students for Chemistry and Physics.

402 Biology (A)

Grade 9 Level 3 1 Credit (Year)

The course is designed for those students who have demonstrated aptitudes, skill, and knowledge in previously taken science classes. Course content is similar to Biology 411 but is presented at an accelerated rate and in greater depth.
PREREQUISITE: Minimum B in eighth grade IPS, Earth and Space, and teacher recommendation. It is highly recommended that students in Plane Geometry (A) take this course.

410 Intermediate Science I

Grade 11 Level 1 1 Credit (Year)

This course is designed to give students a practical overview of basic scientific principles from a biological and earth science point of view. It will also help to point out how these principles affect the students' everyday life. This course is not intended for college preparation.

411 Biology

Grade 9-10

Level 2

1 Credit (Year)

This course presents a study of living things. Concepts are developed to considerable depth, consistent with the maturity level of the students. Students have the opportunities to develop laboratory skills and techniques to further their understandings of biological science.

413 Chemistry (A)

Grade 10

Level 3

1 Credit (Year)

The course is designed for those students with special skills and knowledge in science. The subject matter is essentially as Chemistry 407, but the material is developed in greater depth and competency level.

PREREQUISITE: B in accelerated biology and teacher recommendation. Accelerated biology students with less than a B average and biology students should schedule General Chemistry.

420 Intermediate Science II

Grade 12

Level 1

1 Credit (Year)

This course is designed to give students a practical overview of basic scientific principles from a physical and chemical point of view. It will also help to point out how these principles affect the students' everyday life. This course is not intended for college preparation.

PREREQUISITE: Departmental and guidance approval.

421 Chemistry

Grade 10-11

Level 2

1 Credit (Year)

Emphasized in the course are the structural features of chemical systems, atomic structures, and the bonding of atoms. Reactions involving the breaking of the bonds in reactants to form new bonds in the products are studied. Laboratory investigations are conducted to obtain data for interpreting these changes. Unit topics are: Chemistry in a Modern World, The Organization of Chemistry, Chemical Formulas and Equations, The Physical States of Matter, Solutions, Chemical Reactions.

PREREQUISITE: Algebra 1, Biology, with a C or better. Tenth grade students taking this course must have had Biology (A) or Biology.

422 Anatomy and Physiology

Grade 10-12

Level 2

1 Credit (Year)

Anatomy and Physiology is a course designed to cover general topics in human anatomy and physiology. Topics covered include: cells, tissues, and the following systems: integumentary (skin), skeletal, muscular, circulatory, nervous and sensory, digestive, respiratory, and urinary. The class is designed to be a continuation to general biology and an introductory course for those students seeking to enter the health field.

NOTE: Students are required to dissect or observe the dissection of sheep parts with a lab quiz on those dissected parts. Gloves and goggles are provided.

423 Introduction to Forensic Science

Grade 10-12

Level 3

1 Credit (Year)

This is an interdisciplinary course which exposes students to various careers that are available in the field of sciences and other disciplines. Forensic science involves all areas of science including biology, anatomy, chemistry, physics, and earth science with an emphasis in complex reasoning and critical thinking. In addition, it incorporates the use of technology, communication skills, language arts, art, family and consumer science, mathematics, and social studies. This is a high end elective taught at the first year college level.

PREREQUISITE: "B" or better in biology and chemistry.

425 Physics (A)

Grade 11

Level 3

1 Credit (Year)

Same as Physics but is taken by students during their 11th grade year. Content is developed to meet the needs and interests of exceptional students in the fields of science and mathematics.

PREREQUISITE: Currently enrolled or completed Trig/PreCalc and completed Chemistry with a C or higher.

430 Physics

Grade 11-12

Level 3

1 Credit (Year)

Physics is a study of the natural laws and how they affect our lives. The course is designed to meet the requirements of students who expect to enter college, but is also of value to any student who desires to understand how natural laws operate. The year's work is divided into units on vectors, one dimensional and two-dimensional motion, forces, energy, momentum, and wave phenomena. PASCO science workshop interfacing equipment aids in laboratory experiments. Students will utilize computers to display data, analyze the data, and create graphs. Content is developed to meet the needs and interests of exceptional students in the fields of science and mathematics.

NOTE: It is recommended the student be currently enrolled in Trigonometry.

PREREQUISITES: Completed Plane Geometry and Chemistry with a "C" or better.

431 Introduction to Geoscience

Grade 11-12

Level 2

1 Credit (Year)

Introduction to Geoscience is designed for the collegiate bound junior or senior student who wants to have a better understanding of the natural world in which they live. In essence, this is a non-lab science elective that is designed for students who are prepared to work at a level that is appropriate for a student planning on going to college. Through reading, discussion, computer research, current events projects, and written works, students should better understand the significance of the basic principles of environmental science, geology, meteorology, oceanography, and astronomy in their everyday lives. A basic knowledge of Earth's dynamic features and current environmental issues are important to the development of an informed citizen. Students who have gone through the class and into college geology courses have said that the course has prepared them with a good foundation for success in this line of science. You don't have to be going into science to succeed but a general interest in current earth and science issues is a must. At least one major research project is incorporated into the course.

Recommendation: C or better in Chemistry or currently enrolled in chemistry

PREREQUISITE: "C" or better in Biology.

433 AP Biology

Grade 11-12

Level AP

1 Credit (Year)

This course is designed to meet the standards of any first-year college biology course. It follows the guidelines laid out by the College Board. The course consists of a scheme covering cellular chemistry, cell physiology, genetics and evolution. A focus of DNA and DNA technology is covered. Comparative animal development as well as comparative vertebrate anatomy is also a part of this course. The course is strongly recommended for any student considering medical, paramedical and health related major/profession at the college level. Any student taking this course is required to take the AP biology exam offered in May, by the College Board.

PREREQUISITE: Biology, Chemistry with a "C" or better and teacher approval.

434 AP Chemistry

Grade 11-12

Level AP

1 Credit (Year)

The Advanced Placement Chemistry course is equivalent to a first year college chemistry course. Topics such as atomic structure, equilibrium, kinetics, and thermodynamics are covered in depth. The class meets seven times a week placing emphasis upon quantitative lab work. In order to receive weighted grading credit for the class, students must take the Advanced Placement Exam (see p. 4).

PREREQUISITE: At least a 90% final grade average in accelerated chemistry.

435 AP Physics

Grade 12

Level AP

1 Credit (Year)

This course is designed to meet the standards of both the Advance Placement Physics "C (Mechanics Only)" curriculum and the College in High School through the University of Pittsburgh. In order to receive weighted grading credit for the class, students must take the Advanced Placement Exam (see p. 4). This course is equivalent to a first year calculus-based college physics course. The course concepts covered throughout the year are: vector analysis, kinematics (free fall motion, projectiles, etc.), dynamics (forces, momentum, etc.), rotational motion (torque, angular motion, etc.), planetary motion, work and energy, simple harmonic motion,

introduction of waves and motion, introduction of light and sound, and an introduction of electromagnetic theory. Physics labs will include the use of computers and lab software to investigate physics relationships and concepts. Students are directed to use computers to graphically analyze results. In addition, various projects will be introduced throughout the course dealing with the application of physics concepts and theories. Also, field trips will allow students to see physics in action around them.

PREREQUISITE: Student must have completed Physics (A) and Pre-Calculus/Trigonometry with a B or higher and currently enrolled or has already taken a calculus-based math course.

MODERN WORLD LANGUAGE – Class Descriptions

510 FRENCH I

Grade 9-12

Level 2

1 Credit (Year)

This course is designed to introduce students to French with a focus on speaking, reading, writing and listening skills through grammatical and thematic structures. Students will learn how to greet people and make introductions, use numbers, tell time, tell the date, discuss weather patterns, describe family relationships, order food and drinks in a restaurant, speak in the present tense using actions verbs, describe their daily activities, express wishes and obligations, describe people and objects, ask questions, talk about possessions, ask for directions and discuss future plans. Students will also learn about French culture including French geography and major monuments, food specialties, the French school system, the euro currency, the use of military time, major sports and weekend activities, French ways of transportation and French holidays. The class will consist of written and oral activities done in groups or individually.

PREREQUISITE: Recommended “C” or better in academic English.

511 FRENCH II

Grades 9-12

Level 2

1 Credit (Year)

This course is a continuation of Level I French grammar and expansion of vocabulary. This academic course is designed to further student’s ability to speak, read, write and understand *basic* French through grammatical and thematic structures. Students will *review* how to greet people and make introductions, use numbers in counting and in telling time, discuss the weather, give basic commands to others, speak in the present tense about activities that they like and dislike, describe themselves and others, describe their family and friends, describe their class schedules, and be able to describe their classrooms. Students will learn how to ask various types of questions and be able to give several types of responses due to expansion of vocabulary and grammar in Level II. Students will work with units incorporating and expanding the themes of city and buildings, sports and leisure activities, and shopping for clothing and food. Students will also be able to use irregular verb forms when talking about their personal activities. They will also be able to talk about their activities in the past and in the future by using the *passé compose* and the *immediate future* tenses. Various cultural topics will be included in the course including intercultural differences, the city of Paris, various important cities and historical sites in France, other Francophone countries in the world and foods of different regions of France. Some French traditional holidays will be introduced and discussed through various activities such as All Saints’ Day, Christmas, the Day of the Kings, Mardi Gras and April Fish Day. The class will consist of individual, small and large group activities using videos, music, reading materials, photos, realia and various forms of technology as means of instruction.

PREREQUISITE: “C” or better in Level I.

512 FRENCH III

Grades 10-12

Level 2

1 Credit (Year)

This Academic course is a continuation of Level II French grammar and expansion of vocabulary. It is designed to further student's ability to speak, read, write and further understand how to use the *basic tools* of French and expand their personal skill through grammatical and thematic structures. Students will *review* basic grammar in the present tense as a link to understanding how to use colloquial language and translation skills. Students will work with units incorporating and expanding the themes of personal identity, family and friends, personal activities, plans for the future, entertainment, sports and health issues. Students will also be able to use irregular verb forms when talking about everyday activities of themselves and others. They will learn how to replace nouns and speak with a more natural tone using direct and indirect objects pronouns in various tenses. Student will be proficient in the present tense of regular and irregular verbs of the thematic chapters. The students will also be able to understand the usage and differences between the two past tenses (the *passé composé* and the imperfect.) Various cultural topics will be included in the course including intercultural differences, the roots of the French civilization and the Middle Ages in France and its effect on modern French society and language. Some French traditional holidays will be discussed through various activities such as All Saints' Day, Christmas, the Day of the Kings, Mardi Gras and April Fish Day. The class will consist of individual, small and large group activities using videos, music, reading materials, photos, regalia and various forms of technology as means of instruction.

PREREQUISITE: "C" or better in Level II.

515 FRENCH HONORS IV

Grade 12

Level 3

1 Credit (Year)

This Academic course is presented in the same manner as Level IV French. (See the course description for Level IV French.) The difference between the two courses is there is an emphasis on the personal understanding of the culture of French society through creating a "Cultural Project Binder" by the end of the school year. Every 5 weeks a new topic will be discussed and options are provided to meet the personal interest of the student. These projects will be created within the target language using intermediate and advanced concepts. Students will study the various topics of research and provide examples of art, music, poetry, architecture, history, science and technology through writing, speaking, drawing and performing. The "Cultural Project Binder" will serve as evaluation of personal language skills and growth in structure of the language. This course is designed for those students who intend on continuing to learn French at the university level of study.

PREREQUISITE: "B" or better in Level III and departmental approval.

516 AP FRENCH

Grade 12

Level 3

1 Credit (Year)

Students who enroll in AP French Language should already have a good command of French grammar and vocabulary and have competence in listening, reading, speaking, and writing. Although these qualifications may be attained in a variety of ways, it is assumed that most students will be in the final stages of their secondary school training and will have had substantial course work in the language.

The course should emphasize the use of language for active communication and help students develop the following:

The ability to understand spoken French in various contexts.

A French vocabulary sufficiently ample for reading authentic newspaper and magazine articles, literary texts, and other non-technical writings.

The ability to express themselves coherently, resourcefully, and with reasonable fluency and accuracy in both written and spoken French.

Course content can reflect intellectual interests shared by the students and teacher (the arts, current events, literature, sports, etc.). Materials might well include audio and video recordings, films, newspapers, and magazines. The course seeks to develop language skills (reading, writing, listening, and speaking) that can be used in various activities and discipline. Extensive training in the organization and writing of compositions should also be emphasized. In order to receive weighted grading credit for the class, students must take the Advanced Placement Exam (see p. 4).

PREREQUISITE: Completion of Honors French IV and recommendation from French IV instructor.

500 SPANISH I

Grade 9-12

Level 2

1 Credit (Year)

This course is designed to introduce students to speaking, reading, writing and listening to understand Spanish through basic grammatical and thematic structures. Students will review and learn to greet people and make introductions, use numbers in counting and in telling time, discuss the weather, give basic commands to others, speak in the present tense about activities that they like and dislike, describe themselves and others, describe their class schedules, what they do during the school day, and be able to describe their classrooms. Students will learn the names of various foods, including certain Spanish foods. Students will ask and answer questions about where they go and what they do for their leisure activities, and describe their families. Various cultural topics will be included in the course including intercultural differences, the Day of the Dead, Christmas and Three Kings Day. The class will consist of individual, small and large group activities using videos, music, reading materials, pictures and technology as means of instruction.

PREREQUISITE: Recommended "C" or better in academic English.

501 SPANISH II

Grade 9-12

Level 2

1 Credit (Year)

In the second level of Spanish, students will learn more advanced concepts as well as review concepts from Spanish I. Students will learn how to speak, read and write in the present and past tenses. They will learn to use vocabulary that is related to everyday life such as travel, shopping, food, giving and asking for directions. Students will be able to use these concepts to ask each other questions, create dialogues, and write paragraphs. Students will also learn a variety of cultural topics such as famous Spanish-speaking people, and famous Hispanic holidays and celebrations. Students will also read short stories to enhance their language comprehension skills.

PREREQUISITE: "C" or better in Level I.

502 SPANISH III

Grade 10-12

Level 2

1 Credit (Year)

This course will build proficiency in the four communication skills. The course will enrich the academic students' language and cultural experience. Course topics will include athletic events and competitions, taking trips, sharing future plans with regard to work and community involvement, maintaining health, friendship, and current events. Students will read a Spanish novel and watch a "telenovela". Students will review the past, future and conditional tenses, and be introduced to the Subjunctive. Various holidays will be studied, such as Christmas in Central America and the Caribbean, the Day of the Kings, Carnival, Holy Week and the Running of the Bulls.

PREREQUISITE: "C" or better in Level II.

504 SPANISH HONORS IV

Grade 12

Level 3

1 Credit (Year)

This course is designed for the exceptional student who has successfully completed level three and seeks the challenge of a course comparable in difficulty and content to college level courses. Each quarter the student will be expected to complete an independent study project in addition to frequent reading and writing assignments and extensive oral participation. The course content includes improving skills in reading, writing, speaking and listening comprehension with regard to topics such as the ancient civilizations, Hispanic cultures, the atmosphere, societal rights and responsibilities, Hispanics in the United States and various customs and beliefs of Hispanic and American cultures. Students will read two Spanish novels.

PREREQUISITE: "B" or better in Level III and departmental approval.

505 AP SPANISH

Grade 12

Level 3

1 Credit (Year)

An AP Spanish Language course is comparable to an advanced level (5th- and 6th-semester or the equivalent) college Spanish language course. Emphasizing the use of Spanish for active communication, it encompasses aural/oral skills, reading comprehension, grammar, and composition.

The course objectives are to help students:

understand Spanish spoken by native speakers at a natural pace, with a variety of regional pronunciations, in both informal (interpersonal) and formal (presentational) contexts;

develop an active vocabulary sufficient for reading authentic newspaper and magazine articles, contemporary literature, and other non-technical writings (websites, letters and emails, advertisements, signs and instructions) in Spanish;
express yourself by describing, narrating, inquiring, and developing arguments in Spanish, both orally and in writing, with reasonable fluency, using different strategies for different audiences and communicative contexts.

In this course, special emphasis is placed on the use of authentic source materials and the integration of language skills. Therefore, you should receive extensive training in combining listening, reading, and speaking (or listening, reading, and writing) skills in order to demonstrate understanding of authentic Spanish-language source materials. In order to receive weighted grading credit for the class, students must take the Advanced Placement Exam (see p. 4).

PREREQUISITE: Completion of Honors Spanish IV and recommendation from Spanish IV instructor.

BUSINESS EDUCATION – Class Descriptions

600 Computer Applications for School and Business

Grade 9-12

Level 2

1 Credit (Year)

This course is highly recommended to all students (grades 9-12) regardless of their future career plans. It is an introductory course designed to develop computer skills necessary for college and beyond, providing an introduction to computer applications. Topics include a non-technical study of the Windows operating systems, development of applications using Microsoft Office 2007 for word processing (Word), spreadsheets (Excel), presentations (PowerPoint), relational databases (Access), Desktop Publishing (Publisher) and web-based e-mail. Students will also learn software integration and streamlining of tasks through the use of real-world business simulations.

601 Web Site Design & Development

Grade 10-12

Level 2-3

1 Credit (Year)

3 Credits U. of Pittsburgh

The objective of this course is to provide a basic understanding of the methods and techniques of developing a simple to moderately complex web site. Using the standard web page language XHTML, students will be instructed on creating and maintaining a simple web site. After the foundation language of XHTML as well as some dynamic XHTML has been established, the aid of an Internet editor will be introduced. To further enhance the web sites, a second language, Java Script, will be included. Finally, web site design and layout techniques, as well as basic search engine analysis, will be added to enhance the students practical design skills.

602 Computer Programming with Visual Basic

Grade 10-12

Level 2-3

1 Credit (Year)

3 Credits U. of Pittsburgh

This class provides an introduction to developing programs in a Windows environment using Visual Basic. Topics include the design of the graphical user interface, using Visual Basic forms, controls and tools, and event driven programming. Students will be involved in a problem analysis and the development of algorithms to create programs that satisfy a variety of conditions.

603 Computer Programming with Java

Grade 10-12

Level 2-3

1 Credit (Year)

3 Credits U. of Pittsburgh

This course introduces students to the concepts, techniques and tools of computer science. Using the programming language Java, the fundamentals of problem analysis, algorithm development are emphasized. Students will design programs that elaborate fundamental concepts. Through an object-oriented approach to programming, the organizational skills developed in this course would be beneficial to any student regardless of intended college major.

610 Business Law and Finance

Grade 10-12

Level 2

1 Credit (Year)

This course is designed for all students, grades 10-12, regardless of career choice or academic path. Explore the foundations of business law as they pertain to everyday life. Topics include, but are not limited to, contracts, criminal law, environmental law, family law and consumer protection. The finance portion of this course focuses on the student's role as citizen, consumer, and active participant in the business world. The course informs students of their various financial responsibilities in a highly technical and competitive society. Topics include, but are not limited to, income, benefits, taxes, budgeting, wise use of credit, insurance, stocks and bonds, personal risk management, buying decisions, savings and investing, and credit problems and laws.

611 Introduction to Accounting

Grade 10-12

Level 2

1 Credit (Year)

3 Credits CCAC

This course is highly recommended for both the college bound student and the student planning to enter the work force upon graduation. The purpose of Accounting I is to provide students with basic accounting skills to enable them to apply for entry level accounting jobs, and to prepare students planning to major in the accounting/business curriculum in college. This class also provides valuable knowledge and skills that can be used by all people in everyday life regardless of their field of employment.

PREREQUISITE: Algebra I

612 Financial Accounting

Grade 11-12

Level 2

1 Credit (Year)

4 Credits CCAC

This course is definitely recommended for both the student planning to go to college and major in business/accounting and the student seeking employment upon graduation. Accounting II lays the foundation for building a career in the accounting field. It gives the student a deeper understanding of the preparation of analyzing financial reports. It provides advanced learning in specialized journals and ledgers for departmental accounting manufacturing concerns, partnerships and corporations. The student becomes more competent so that he or she can compete in a wider employment range for entry level accounting positions. It also helps pave the way to easier understanding of college accounting courses.

PREREQUISITE: "C" or better in Introduction to Accounting.

613 Marketing

Grade 11-12

Level 2

1 Credit (Year)

This course is an introduction to marketing concepts. Marketing is the process of developing, promoting, pricing, and distributing products in order to satisfy customer's wants and needs. Students will learn about marketing through real-life examples, practical applications, and creative projects. Topics studied in this course include, but are not limited to, the marketing concept, socially responsive marketing, competition, e-commerce, developing a marketing plan, business-to-business marketing, and developing successful products.

614 International Business

Grade 11-12

Level 2

1 Credit (Year)

This course is an introduction to international business. This course has a strong theory base with a managerial emphasis and a focus on the impact of technology on global business. Students will learn about international business through real-life examples, practical applications, and creative projects. Topics studied in this course are: the impact of international business, the theory of international business, the international business environment, the preparation and development of international business, and the strategy and implementation of international business. Students must demonstrate knowledge in the above-learned concepts both through classroom work and study, and through the application of real world cases.

615 AP Economics

Grade 12

Level AP

1 Credit (Year)

This AP course presents the politics and science of economic theories encouraging students to apply an economic way of thinking in their daily lives. The class explores such topics as opportunity cost, marginal decision-making, the role of incentives, the gains from trade, the efficiency of market allocations, as well as extensive study in Micro and Macroeconomic theory. In order to receive weighted grading credit for the class, students must take the Advanced Placement Exam (see p. 4).

UNIVERSITY OF PITTSBURGH AFFILIATED PROGRAMS

The following courses are offered under the auspices of the University of Pittsburgh, providing students with the opportunity of receiving college credit: Computer Programming with Visual Basic, Web Site Design and Development, Computer Programming with Java, and AP Computer Science. A student may receive credit by paying the university's tuition fee which is set yearly at the discretion of the university. Although not guaranteed, these credits have been accepted by most colleges and universities. RECEIVING CREDIT FROM THE UNIVERSITY OF PITTSBURGH IS OPTIONAL.

FAMILY AND CONSUMER SCIENCES – Class Descriptions

700 Life FACS

Grade 9

Level 1-2

1 Credit (Year)

Life FACS is a comprehensive Family and Consumer Science class. We cover several topics such as personal development, relationship skills, families and friendship, child development, management and consumer decisions, housing and design, food and nutrition, and bully prevention. Basic cooking skills and nutrition will be covered in the food unit. The students will complete several projects including a bird's-eye view housing project and a parenting assignment.

701 Nutrition and Wellness

Grade 10-12

Level 1-2

1 Credit (Year)

Nutrition and Wellness does not require a prerequisite. In each area or unit of study, there is at least one food preparation. Areas of study will include: The study and understanding of the fundamentals of good nutrition, food labels, and weight management as related to good food and to utilization; Food measurements, equivalencies, and terminology; the study of dairy products which will include a milk and cheese lab; a study of eggs in the diet and proper preparation; a unit of study in fruits and pastry with pie preparation. Students will learn the fundamentals of entertaining and demonstrate their knowledge by planning, preparing and serving a holiday party to friends. . The second half of the year will involve meal planning and management, breads, cereals and grains, fat and its purpose in the body, the proper place of protein in the diet. Upon completion of the course with a passing grade, students may elect Advanced Foods.

703 Advanced Foods and Nutrition

Grade 11-12

Level 2

1 Credit (Year)

Advanced Foods and Nutrition is offered to the student who has passed Nutrition and Wellness and wishes to have more advanced training in food study and preparation. Detailed study will be presented in the areas of: food preservation; the advantages and disadvantages of convenience foods; food labeling; family budgeting; holiday foods; special diets; whole grains and gourmet foods. Labs are included in all of these areas of study. Students may also be involved in food preparation for special school and community functions. PREREQUISITE: "C" or better in Nutrition and Wellness.

705 Family Relations/Child Development

Grade 10-12

Level 1-2

1 Credit (Year)

Family Relations focuses on the teenager, his relationship with his family, and proceeds to relationships with others. This is followed by a study of dating relationships, love, mate selection, engagement, premarital standards and maturity for marriage. In the marriage unit the following topics are discussed: wedding plans, finance and the working wife/husband and working mother/father. The final unit studies divorce and its effects on the family. A parenthood project is a course requirement. Child Development is designed to learn growth patterns of children, their care and behavioral problems. Areas of study include; preparation for a new arrival in the family; growth pattern before birth; role of heredity and environment upon development of the child; providing proper physical care of the infant through preschool age; trace social behavior; providing creative learning and play experiences; the influence of family size and structure upon development; recognizing and coping with behavioral problems; investigate possible employment fields related to child care. The mid-term and final will be a wedding project and a pop-up children's book project.

706 Growing with Children I (Preschool)

Grade 11-12

Level 1-2

1 Credit (Year)

Growing with Children I focuses on the social, emotional, physical, and intellectual development of children ages three through five. This class is designed to help the student prepare for a career in early childhood education and/or future parenting skills. This class focuses on child development theories, discipline challenges, observation techniques, and creative lesson planning. Students will have hands on learning experiences in creating a safe, healthy, and stimulating learning environment for preschool age children. This course involves observing, planning, and instructing preschool children.

707 Growing with Children II (Preschool)

Grade 12

Level 2

1 Credit (Year)

Growing with Children II is offered to the student who has successfully completed Growing with Children I and wishes to have more advanced training with preschool children. Students enrolled in this class will be integrated with and serve as role models for Growing with Children I students. The second year students will be responsible for maintaining the science/math corner, planning all parties, creating bulletin boards, and developing lessons for the preschool students.

PREREQUISITE: Successful completion of Level I with a passing grade of "C" or better.

708 Independent Living on Your Own

Grade 12

Level 2

½ Credit (Semester)

The purpose of this newly designed course is to help students gain the perspective of moving on from high school to working or going to college. The course also helps students practice some of the major decisions they will face as they grow into adulthood. The seven different units for this course are as follows: Planning for Your Future – students analyze different careers and pick a career they are interested in researching; Applying for Jobs – students participate in different activities to gain knowledge in writing resumes and preparing for interviews; How to Manage Finances – students participate in a creating a budget and living by it simulation; Becoming an Active Consumer – students analyze how to become an active consumer; Family Responsibilities – students identify the different responsibilities such as parenting and purchasing and creating nutritious meals; Insurance, Taxes and Vehicles – students use the information about insurances and taxes to go through different steps of purchasing a vehicle; Citizenship – students analyze what it really means to be a good citizen and how it can help not only our community, but also our country.

ENGINEERING AND TECHNOLOGY EDUCATION – Class Descriptions

750 Exploratory Engineering

Grade 9-10

Level 1

1 Credit (Year)

This course should appeal to all students. In particular, students with an interest in robotics, engineering, architecture, or green design are encouraged to take this course. Students who have interests in technological careers will be exposed to a variety of engineering concepts. Students will apply their creative abilities through the application of Computer Aided Design, scientific principles, and engineering analysis to solve structured and unstructured problems. Individual and team work will be emphasized through the design loop or problem-solving process. Students will utilize math and science concepts combined with the operation of tools and machines to develop solutions to bring thoughts and ideas to life with the use of hands on activities. Emphasis will be placed on materials processing in the Engineering field. Students will work with materials such as woods, plastics, metals, and cardboard and follow products they create through the steps of research, design, prototype, manufacture, and testing. The class will promote technological literacy, leadership, and problem-solving skills.

751 Introduction to Materials Processing & Engineering

Grade 10-12

Level 2

1 Credit (Year)

The practical application of mathematics, technology, science, engineering, and material science is the foundation for this course. Students will begin a yearlong engagement of processing materials into pre-engineered designs and projects based on solving common problems and answering the needs of everyday modern life. Students who enjoy crafting products from raw materials such as woods, metals and plastics into usable items will find the course work fulfilling. Students will engage in Civil Engineering using state of the art site levels and measuring devices. Students will prepare a construction site by compacting soils in preparation for bridges, roads and buildings. Students will design sustainable structures and construct student designed projects. The crafting of materials into practical projects will be explored using a state of the art woodshop. Students will apply STEM to problem solve and design solutions to common problems facing society today and the future. The course is designed to prepare the student for a career in the engineering and or technical world. Students will develop engineering skills through course experiences and activities. Students will be exposed to information and projects that support problem solving, inquiry, critical thinking and creativity.

752 Advanced Materials Processing & Engineering

Grade 11-12

Level 2

1 Credit (Year)

In depth applications of STEM concepts will be the foundation for this course. Students will develop engineering skills, hone machining skills, develop design skills along with materials processing and problem solving. Students with technology or engineering interests will appreciate the rigorous course work and challenges. Using STEM guidelines students will engage in Civil Engineering and land development. Students will engineer sustainable structures in accordance with available technologies. The class will offer hands on application of materials processing leading to the design and construction of a variety of possible projects. Students will use machinery to process materials into usable projects. The application of multi-disciplinary subjects will create opportunities for the advanced student to prepare for unique and intense learning experiences. The course is designed to expose the student to common practice in the engineering fields. The coursework will give students exposure to a variety of STEM challenges and experiences. Students will gain practical knowledge of global solutions to a wide variety of engineering concepts through this exhaustive course.

753/754 Structural Engineering and Design Applications I/II

Grade 12

Level 2

1 Credit (Year)

Students will explore structural engineering based on available material resources in this innovative course. Students who are interested in engineering will benefit from the course work and classroom activities. The engineering design process will be applied to problems and other STEM based challenges. Students will face a variety of engineering situations and problems that will require intense problem solving and adaptability skills to navigate. Energy availability and resource consumption will drive the coursework in preparation for inevitable changes in resources. Students will design sustainable solutions in response to changes in global resource availability. Students will be active in the testing process as engineered solutions will require substantial research and development to ensure success. Machinery and tooling exposure will be part of the student's daily academic staple. The course work is highly charged with engineering processes. Students will engage in state of the art design work to prepare the student for present and future engineering challenges. Team work and problem solving will be utilized daily to actively promote critical thinking and problem solving skills. Students will be involved in fundamental engineering activities designed to prepare them for academia and the world of work.

PREREQUISITE: Advanced Materials Processing and Engineering

761 Introduction to Robotics Engineering and Design

Grade 10-12

Level 2

1 Credit (Year)

This course should appeal to students who have interests in designing, creating and programming robots and programming video design software. Robotics is an engaging way to integrate STEM education within the classroom. Students will utilize a variety of engineering design processes in the development of their robots to meet various VEX. Student activities will include brainstorming, designing testing, evaluating best solutions, and building of robots which will require refinements and/or redesign. Student's robot design will integrate motion, structural, power, sensors, autonomous programming and use of RC controllers. In addition to the science and engineering principals, VEX robots encourage teamwork, leadership and problem solving among groups. Video Game Design will also be utilized in this course due to the programming aspect and other micro controllers as platforms they become available.

PREREQUISITE: "C" or better in Exploratory Engineering or instructor approval. Current 10th and 11th grade students are exempt from this prerequisite.

762 Robotics Engineering and Design

Grade 11-12

Level 2

1 Credit (Year)

This course should appeal to students who have interests in designing, creating and programming robots, and programming video design software. Student may choose to be part of the BOTS IQ team and utilize CNC equipment such as router, laser and, if funds permit a 3D printer, to develop and build the team's robot. This course will utilize CAD (Computer Aided Design) software and applications to develop engineering skills and concepts for designing, creating, prototyping and testing parts and student-interested based robotic projects. Students will be required to record their progress through written, photo and video documentation. Video Game Design will also be utilized in this course due to the programming aspect and other micro controllers as platforms they become available. Student's robot design will integrate motion, structural, power, sensors, autonomous programming and use of RC controllers. In addition to the science and engineering principals, VEX robots encourage teamwork, leadership and problem solving among groups.

PREREQUISITE: "C" or better in Introduction to Robotics Engineering or instructor approval.

763/764 Advanced Robotics Engineering Design (BOTS IQ) III

Grade 11 and 12

Level 2

1 Credit (Year)

This is the advanced robotic course for students who have a desire to work in a team environment and may wish to enter engineering or designing careers. Students will design multiple complex parts acting together to create systems or subsystems with software applications. Student will again utilize CNC equipment such as router, laser and if funds permit a 3D printer and created molds and will incorporate electronic components into

the team's robot. This course will utilize CAD (Computer Aided Design) software and applications to develop engineering skills and concepts for designing, creating, prototyping and testing parts and student-interest based projects. Students will be required to record their progress through written, photo and video documentation. Emphasis will be placed upon team design and documentation processes used in the Engineering field. Students will work with various materials such as plastics, metals, wood and electronics. This class content will provide students with opportunities to work as teams to improve problem solving skills needed by today and future workforces.

PREREQUISITE: "C" or better in *Robotics Engineering and Design* or instructor approval.

775 Introduction to Engineering Design

Grade 11-12

Level 2

1 Credit (Year)

This course should appeal to creative students who have a desire to explore designer or engineering careers. Students will design parts with software applications, which will enable students to see 3 Dimensional representations of their products. These parts may be created with clay, machine wax, or Styrofoam to create mockups and/or utilizing student created molds and CNC equipment such as router, laser and, if funds permit, a 3D printer. This course will utilize CAD (Computer Aided Design) software and applications to develop engineering skills and concepts for designing, creating, prototyping and testing parts and student-interest based projects. Students will be required to record their progress through written, photo and video documentation. Emphasis will be placed upon the design and documentation processes used in the Engineering field. Students will work with various materials such as cardboard, plastics, metals, wood and casting materials. This class content will provide students with opportunities to explore problem solving skills needed by today and future workforces.

PREREQUISITE: "C" or better in Exploratory Engineering or instructor approval.

776 Engineering Design

Grade 11-12

Level 2

1 Credit (Year)

This is a continuation course for students who have a desire to work in a team environment and may wish to enter engineering or design careers. Students will design multiple complex parts acting together to create systems or subsystems with software applications. Student will again utilize CNC equipment such as router, laser and, if funds permit a 3D printer, created molds and student may be required to incorporate electronic components into their product. This course will utilize CAD (Computer Aided Design) software and applications to develop engineering skills and concepts for designing, creating, prototyping and testing parts and student-interest based projects. Students will be required to record their progress through written, photo and video documentation. Emphasis will be placed upon team design and documentation processes used in the Engineering field. Students will work with various materials such as cardboard, plastics, metals, wood and casting materials. This class content will provide students with opportunities to work as teams to improve problem solving skills needed by today and future workforces.

PREREQUISITE: "C" or better in Introduction to Engineering or instructor approval.

777 Architectural and Civil Engineering

Grade 11 and 12

Level 3

1 Credit (Year)

This course should appeal to students attracted to residential designing, architectural and civil engineering. Students will examine newer building techniques with emphasis on green and sustainable architecture. Students will examine some of the career areas that use Chief Architect software including architecture, construction, interior design, manufacturing and landscape design. Students will research and examine Civil Engineering structures such as tunnels, bridges, locking systems, power stations, etc. Students will examine process in light of real world activities using construction materials to product models on a smaller scale. These activities will be STEM based and will include material testing, molding, and casting. Student will be exposed to sustainable architecture, designs and techniques. This will benefit the student as a future home

designer and consumer. Sustainable Architecture designs can be tied in with construction and energy technologies. PREREQUISITE: "C" or better in Engineering Design or instructor approval.

FINE ARTS – Class Descriptions

800 Intermediate Band

Grade 9

Level 2

1 Credit (Year)

The Intermediate Band prepares and presents music for school events and public concerts. This music comprises a variety of styles in order to familiarize students with as large and balanced a repertoire as possible. Attendance at scheduled evening and/or after-school performances is a requirement of the course. To become a band member, a student must demonstrate to the band director an acceptable degree of proficiency on a band instrument and is expected to continue their playing development either by private study or instrumental instruction at school. A student whose musical proficiency is not acceptable may take instrumental music instruction to qualify for band membership. Highly qualified band members may be chosen to perform in the PMEA Junior High School District Band and Orchestra festivals, and may audition for District I Honors Band. Qualified band members may be chosen by audition to march with the high school varsity marching band in addition to their membership in the Intermediate Band.

PREREQUISITE: Eighth Grade Band and/or audition

801 Concert Orchestra

Grade 9-12

Level 2

1 Credit (Year)

Concert orchestra prepares and presents music for school events and public concerts. This course is open to all students who play a string instrument (violin, viola, cello, bass). Students should possess a willingness to perform and expand their playing ability through individual and ensemble work. The Concert Orchestra will perform concerts with the Symphonic Orchestra, and attendance at these evening and/or after school events is a requirement of this course. In addition to exploring all periods and styles of string orchestra repertoire, Concert Orchestra will be a training orchestra for string students to sharpen the musical, technical, and ensemble skills necessary to qualify for Symphonic Orchestra. Students with exceptional ability may audition to participate in PMEA Honors and District Orchestras.

802 Girls Chorus

Grade 9 (Females Only)

Level 1-2

1 Credit (Year)

Chorus is designed for those ninth grade girls who enjoy singing and wish to develop their musical abilities. The chorus will sing three and four part music in a wide variety of styles. Students will become thoroughly familiar with the reading of choral music score, work to develop their vocal range and quality, as well as develop knowledge of music symbols and terminology. Chorus members will participate in three mandatory performances each year in December, March and May. Exceptional students may be chosen to participate in the PMEA Junior High School District Chorus or audition for PMEA Honors Chorus. Membership in Ninth Grade Chorus is by departmental approval.

803 Jazz Ensemble

Grades 9-12

Level 3

1 Credit (Year)

Jazz Ensemble will perform at a variety of school and community functions. All styles of jazz music are explored with an emphasis on jazz improvisation (theory and harmony), jazz history and listening. Students playing instruments that are utilized in a standard big band format may participate (saxophones, trombones, trumpets, bass guitars, piano, drums, and percussion). Students will also explore jazz combo literature. Jazz students of exceptional ability may audition for PMEA District and All-State Jazz Ensembles.

PREREQUISITE: Audition and scheduled membership in intermediate, concert, or symphonic bands.

Note: Pianists and guitarists are exempt from the band prerequisite.

810 Symphonic Band

Grade 10-12

Level 3

1 Credit (Year)

The symphonic band prepares and presents music for a variety of events which include football games, parades, band festivals, school assemblies and public concerts. Both marching and concert performances are essential elements of this course. Participation in both is required. Demands of the course also include participation in summer and after-school rehearsals, and evening/weekend performances. Music of many styles and types is rehearsed so that the band student is familiar with a large and varied repertoire. To become a member of the symphonic band, a student must demonstrate to the band director a high degree of proficiency on a band instrument. The student is expected to continue his musical development, either through private study or instrumental instruction at school. Band students of exceptional ability may audition and be recommended for a variety of interscholastic festival ensembles, including PMEA and Allegheny-Kiski Honors Bands, PMEA District, Regional, and All-State bands and orchestra. Band members are also eligible for Jazz Band, Small Ensembles, Color Guard, Majorettes and Drill Team

PREREQUISITE: Audition

811 Concert Band

Grades 10-12

Level 2

1 Credit (Year)

The concert band prepares and presents music for a variety of events which include football games, parades, band festivals, school assemblies and public concerts. Both marching and concert performances are essential elements of this course. Participation in both is required. Demands of the course also include participation in summer and after-school rehearsals, and evening/weekend performances. Music of many styles and types is rehearsed so that the band student is familiar with a large and varied repertoire. To become a member of the band, a student must demonstrate to the band director an acceptable degree of proficiency on a band instrument. The student is expected to continue his musical development either through private study or instrumental instruction at school. Band students of exceptional ability may audition and be recommended for a variety of interscholastic festival ensembles, including PMEA and Allegheny-Kiski Honors Bands, PMEA District, Regional, and All-State bands and orchestra. Band members are also eligible for Jazz Band, Small Ensembles, Color Guard, Majorettes and Drill Team.

PREREQUISITE: Audition

812 Symphonic Orchestra

Grade 10-12

Level 3

1 Credit (Year)

Symphonic Orchestra prepares and presents music for school events and public concerts. This class is designed for the advanced string player who wishes to rehearse and perform music at a high level, and therefore is open to grade 10-12 students who play a string instrument (violin, viola, cello, bass) by audition only. Students should possess a willingness to perform and expand their playing ability through individual and ensemble work. Symphonic Orchestra will explore all periods and styles of string and full orchestra repertoire, in addition to performing as the Pit Orchestra for the school musical. Participation in after school and/or evening rehearsals, as well as all concerts and performances, is a requirement of this course. Symphonic Orchestra students are expected to demonstrate and maintain the highest standards of musicianship and conduct at all rehearsals, performances, and any other orchestra functions. Students with exceptional ability may audition and be recommended to participate in interscholastic festival ensembles such as PMEA District I Honors String Orchestra and PMEA District, Regional and All-State Orchestras.

PREREQUISITE: Recommendation of orchestra director and audition/re-audition required every year.

813 Concert Choir

Grade 9-12

Level 1-3

1 Credit (Year)

Concert Choir is designed for those students who enjoy singing and wish to participate in the choral performances during the year. The chorus will sing varied styles of music in 3 to 5 parts. In addition, the student will develop music reading skills, vocabulary and ensemble skills. The class will be involved in daily rehearsals leading toward three mandatory performances.

NOTE: Ninth grade males only. Ninth grade females should enroll in Freshman Chorus.

814 Ladies Chorus

Grade 10-12

Level 1-3

1 Credit (Year)

Ladies Chorus is designed for those young ladies who enjoy performing and wish to enhance their vocal technique. Vocal technique, music reading skills, vocabulary and ensemble skills are the focus of this course. Varied styles of music will be rehearsed and performed in three major concerts each year.

PREREQUISITE: Acceptance by audition. All students will be re-auditioned each year.

815 Chamber Choir

Grade 10-12

Level 3

1 Credit (Year)

Chamber Choir is designed for the exceptional choral student who wishes to improve his/her vocal technique and to perform advanced literature in a variety of settings. The ensemble performs literature from multiple eras and genres, including pieces in foreign languages. The group performs three major concerts a year and a Madrigal Dinner. Other outside performances should be anticipated.

PREREQUISITE: Acceptance by audition. All students will be re-auditioned each year.

816 Class Piano

Grades 10-12

Level 2

.5 Credit (Sem.)

The Piano Lab will give students the opportunity to learn basic piano skills, technique, and a functional use of the piano. The class will explore different styles of piano literature, basic chord progressions, scales and composition. Beginning lab students will start together and branch off into individual levels including reading formula notation and improvisation. *This class is a prerequisite for Music Technology or Comprehensive Musicianship.

817 Music Technology

Grades 10-12

Level 2

.5 Credit (Sem.)

Music Technology is designed to combine the most current technology of electronically produced music with similarly advanced computer applications to teach music arranging, composition, and creative writing and performance. Additionally, students will study sound synthesis and design and sound recording and production.

PREREQUISITE: Participation in a scheduled ensemble or "C" or better in Class Piano or Comprehensive Musicianship.

818 Music Theory

Grades 10-12

Level 2

.5 Credit (Sem.)

This one semester course is offered to students who wish to examine the formal elements of music. Course content will include notation of melody and rhythm, intervals, scales and modes, triads, harmony and harmonic progressions, musical dictation, analysis, and ear training. A background in music is desired but not required.

PREREQUISITE: "C" or better in Class Piano.

819 Music Appreciation

Grades 10-12

Level 2

.5 Credit (Sem.)

This is a one semester survey of music from all genres over a span of at least four hundred years. Course content will include music history, critical listening, and comparison of stylistic elements across all musical periods.

PREREQUISITE: "C" or better in Class Piano

830 Honors Band**831 Honors Orchestra****832 Honors Chorus**

Grade 12

Level 3

1 Credit (Year)

These classes are open to Grade 12 students registered for the following classes: Symphonic Band, Concert Chorale, Symphonic Orchestra. Students will be scheduled in the same period as they are currently, but have rigorous additional class requirements that justify the honors designation and credit. Additional course requirements include: Summer preparation of one major solo work to be used as an audition piece, 1st semester audition for, and if accepted participate in PMEA Honors Band, Choir, Orchestra, Alle-Kiski Honors

Band; 2nd semester preparation of a second solo or chamber work for recital performance; both semesters research and publication of program notes for concert.

PREREQUISITE: Departmental approval.

833 Beginning Winds

Grades 9-12

Level 1-2

1 Credit (Year)

Students will learn basics of woodwind and brass instruments including flute, clarinet, alto saxophone, oboe, bassoon, bass clarinet, trumpet, French horn, trombone, and tuba. Students will gain basic knowledge and playing proficiency on each instrument. Students will form an ensemble with an instrument learned in Beginning Winds and perform in class. Students who excel may have the opportunity to perform in spring concerts with Intermediate Band or Concert Band.

It is recommended, but not required, that students have some prior music-reading knowledge prior to taking this class.

850 Art I, Introduction to Elements and Principles of Design

Grade 9

Level 1-2

1 Credit (Year)

Ninth Grade Art is centered on the development of an understanding of the principles of design and the elements of art. Fundamental skills in pencil, water color, charcoal, tempera, pen and ink, pastels, acrylics and various materials are emphasized. A variety of three-dimensional materials are used to increase interest, to develop skills and to stimulate creative thinking.

851 Art II, Basics of Art and Studio Design

Grade 10-12

Level 1-2

1 Credit (Year)

This is a two semester course designed to introduce the student to basic art and craft processes.

Fundamentals in drawing, design, color, painting, sculpture, ceramics, printmaking, textiles and mixed media will be explored. NOTE: All students are required to maintain a sketch book consisting of out of class assignments as well as other appropriate work. These sketchbooks are collected on a weekly basis.

PREREQUISITE: A desire to create and explore with both familiar and new media. Art I is not required.

852 Art III, Appreciation of Art History and Multi-Media Techniques

Grade 11-12

Level 2

1 Credit (Year)

Art, Level III, will be a continuation and further study of skills and knowledge obtained in previous art courses. Areas of exploration will again be those of drawing, design, color, painting, sculpture, ceramics, printmaking, textiles and mixed media. This course is designed to further the development of basic skills, encourage creative thought, explore individual interests and further develop an appreciation and understanding of the arts. NOTE: All students are required to maintain a sketch book consisting of out of class assignments as well as other appropriate work. These sketchbooks are collected on a nine-week basis.

PREREQUISITE: Minimum grade of "C" or better in Art II. Prerequisite of Art II may be waived for admittance to Art III by departmental approval and portfolio review.

853 Art IV, Intermediate Studio Design

Grade 12

Level 3

1 Credit (Year)

This course is designed to give the third year student an opportunity to explore in more depth various areas of interest. Students are encouraged to discover through experimentation in an effort to promote creative thinking patterns. Course work consists of both specific assignment as well as problems originating from the students individual interest. Time will be devoted as necessary to portfolio development for those students seeking a career in the arts. NOTE: All students are required to maintain a sketch book consisting of out of class assignments as well as other appropriate work. These sketchbooks are collected on a nine-week basis.

PREREQUISITE: Minimum grade of "B" in Art III.

854 AP Studio Art

Grade 12

Level AP

1 Credit (Year)

The advanced placement program in Studio Art offers highly motivated students the opportunity to work in an environment that is analogous to a college setting. The art department will identify highly motivated students who have had previous successful experiences in art classes and who are willing to devote considerable time and effort to the study of art and the development of higher level skills. The AP Studio Art Portfolio is a

performance based exam/portfolio review. Note: All AP Art students are required to complete summer assignments and expected to devote at least 4 hours per week outside of class to the development of their skills and the completion of their work. In order to receive weighted grading credit for the class, students must take the Advanced Placement Exam (see p. 4).

Prerequisite: Portfolio Review of artwork from previous art classes and Departmental Approval

855 Crafts, Explorations in Contemporary Mixed Media Design

Grade 11-12

Level 2

1 Credit (Year)

This course is designed to introduce students to a functional as well as decorative art form. The goal is to develop an awareness of texture as a design element and to encourage the use of a creative approach to the materials used in making craft projects. Students are encouraged to discover the creative combination of a variety of materials. The students will have the opportunity to develop their skills and to experiment with various craft media. NOTE: A student does not need drawing ability in order to succeed in this course. PREREQUISITE: A desire to create and explore with various craft materials. Art I is not required.

856 Photography I

Grade 10-12

Level 2

.5 Credit (Sem.)

Photography is designed for the student who has a sincere interest in black and white photography. This course is designed for the beginning photographer as well as those who wish to sharpen previously learned skills. The course is ideal for the student who wishes to pursue photography as a career or hobby. Students will have access to a fully equipped darkroom. A unit on digital photography will be included in the course. Other areas of study will include types of cameras, camera nomenclature, basic camera handling, films, photographic papers, print making, composition, print mounting, types of photography, and safety in photography.

PREREQUISITE: Students must provide their own 35 mm camera and film.

857 Photography II

Grade 12

Level 2

1 Credit (Year)

Photography II is designed for the more advanced art/photography student who has a genuine interest in pursuing a career in Photography or the Fine Arts. The course will focus on traditional and nontraditional shooting, printing, and developing techniques using black and white, color and digital media. Students will have instruction in the incorporation of the Elements of Art and Principles of Design to make dynamic compositions. Students will have access to a darkroom that is fully equipped to print high quality black and white photographs. Units on digital photography and the manipulation of images will be taught in the computer lab.

PREREQUISITE: Minimum grade of "B" or better in Photography I. Students must provide their own 35mm camera and film.

859 AP Photo: 2-D Design

Grade 12

Level AP

1 Credit (Year)

AP Photography offers highly motivated students the opportunity to work in an environment that is analogous to a college setting. The course is designed for students who have had previous successful experiences in Photography I and who are willing to devote considerable time and effort to the study of photography and the development of higher level skills. Students will work with traditional darkroom techniques as well as Adobe Photoshop to explore and solve composition problems. Throughout the course students will develop portfolios by creating a large variety of work that incorporates the elements of art and the principles of design. The AP Studio Art Portfolio is a performance based exam/ portfolio review. Note: All AP Photo students are required to complete summer assignments and they are expected to devote at least 4 hours per week outside of class to the development of their skills and the completion of their assignments. Students must have a 35mm camera, digital camera, and a flash drive. In order to receive weighted grading credit for the class, students must take the Advanced Placement Exam (see p. 4).

PREREQUISITE: Photo I and Departmental Approval

PHYSICAL EDUCATION/HEALTH

901 Physical Education/Swim

Grade 9 Level 1-2 .50 Credit 3/6 Day Cycle

Students meet 3 times in each 6-day cycle for the entire year. Proper swim attire is mandatory. Students will participate in skills that promote water safety, stroke development and proficiency, and cardiovascular fitness. The ultimate goal for the students is to feel comfortable in an aquatics environment.

900 Physical Education

Grades 10-12 Level 1-2 .50 Credit 2/6 Day Cycle

Students will meet two times in a 6-day cycle. Plum PE uniforms are mandatory. Classes will participate in various individual, team, and lifetime activities. Setting individual fitness goals are encouraged. Periodic physical fitness testing is to be expected. Classes strive to enhance physical growth, development and movement and, being an integral part of the educational process, are closely allied with academic progress. This well-rounded program increases the physical and mental well-being in an ongoing process, creating a "sound mind in a sound body."

910 Health

Grade 9 Level 1-2 .50 Credit 3/6 Day Cycle

Health is a year-long class that meets 3 times in each 6-day cycle. Units covered include Wellness Study, Mental Health, Nutrition, Substance Abuse, Chronic Disabling Diseases, Human Growth and Development and STD's (including AIDS). A project is required in lieu of a mid-term exam, and a comprehensive final exam is administered.

911 Health - Online

Grade 10 -12 Level 1-2 .50 Credit 3/6 Day Cycle

This online Health course is designed to introduce students to and expand upon previous knowledge of a variety of Wellness related topics. All assignments can be done at home on a computer with access to Moodle. Units covered include Wellness, Mental Health, Nutrition, Substance Abuse, Chronic Disabling Diseases, Human Growth and Development and STD's (including AIDS). As a course requirement, students will be asked to complete a "mid- term Health Project". This project will be a three to five minute PowerPoint presentation. Upon completion of the course, students will be given a comprehensive final exam, where they should demonstrate course competency at 65% or higher. This course is only available to students who have not passed Health in 9th grade and/or cannot fit it into their schedule.

921 Strength, Flexibility, and Conditioning

Grade 11-12 Level 2 .5 Credit (Sem.) (Elective)

This is an elective course that will provide an introduction to muscular anatomy, exercise technique, safety and spotting, exercise program design and program implementation. Students will establish individual fitness goals and execute an exercise program specifically designed to reach their goals. Students are expected to maintain an "A" average in their regular Physical Education class.

PREREQUISITE: "A" in Physical Education the prior year

922 Strength II (Elective)

Grade 12 Level 2 .5 Credit (Sem.)

This is an elective course that focuses on advanced free-weight movements and flexibility exercises, program design and implementation based on individual fitness goals and sport specific training such as agility and plyometrics. This class is ideal for students who are considering fitness related careers. Students are expected to maintain an "A" average in their regular Physical Education class.

PREREQUISITE: Completion of Strength I.

923 Personal Training Prep Course (Online) (Elective)

Grade 11-12

Level 2

.5 Credit (Sem.)

The field of personal training/fitness instructor requires candidates to possess a wide range of skills related to achieving a healthy lifestyle. This course is designed to provide the student introductory background information for pursuing a fitness-related career. The range of topics covered will include the basics of: Muscular Anatomy & Terminology, Free-weight Exercises, Safety & Spotting, Muscle Grouping & Program Design, Proper Warm-Up, Flexibility, Cardiovascular Activity & Target Heart Rate, Nutrition and Weight Management.

AIR FORCE JUNIOR ROTC

Note: Please contact one of the ROTC instructors for an updated list of the courses available to our JROTC students from Adams State University. Depending on the list of JROTC courses students take at Plum Senior High, up to 34 semester hours can be eligible for purchase. The cost is \$60 per hour.

JROTC instructors will provide a course list to parents to take to college advisors to see what courses will apply to their sons or daughters degree plan. Parents can then discuss these courses with JROTC instructors to see what their son/daughter is eligible to purchase. This process has been constructed to ensure that parents only purchase courses that will reduce the college work load and save potential tuition expenses.

912 AFJROTC Journey into Aviation History

Grade 9 only

Level 2

1 Credit (Year)

Up to 4 Credits, Adams State College

AFJROTC classes are blends of material from an Aerospace Science component course (40%), a Leadership Education component course (40%) and the wellness program (20%). In addition to classroom academics, all leadership components include wear of the cadet AFJROTC uniform and demonstration performance activities involving basic drill and ceremonies. The uniform wear requirement is designed to teach attention to detail, discipline, and dedication. Drill and ceremony activities apply individual skills at the team level and require cadets to learn to function as a unit. The aerospace science portion, *"A Journey into Aviation History"*, focuses on the development of flight throughout the centuries. It starts with ancient civilizations, then progresses through time to modern day. The emphasis is on civilian and military contributions to aviation; the development, modernization, and transformation of the Air Force; and a brief astronomical and space exploration history. It is interspersed with concise overviews of the principles of flight to include basic aeronautics, aircraft motion and control, flight power, and rockets. Throughout the course, there are readings, videos, hands-on activities, and in-text and student workbook exercises to guide in the reinforcement of the material. The leadership portion of this course, *"Citizenship, Character & Air Force Tradition"*, introduces cadets to the Air Force Junior Reserve Officer Training Corps (AFJROTC), providing a basis for progression through the AFJROTC program while instilling elements of good citizenship. **No military obligation is imposed, expected or incurred by students participating in AFJROTC classes.**

914 AFJROTC Science of Flight

Grade 10 – 12

Level 2

1 Credit (Year)

3 Credits, Adams State College

"Science of Flight" is an aerospace science course designed to acquaint the student with the aerospace environment, the human requirements of flight, principles of aircraft flight, and principles of navigation. The course begins with a discussion of the atmosphere and weather. Developing an understanding of the environment and how that environment affects flight is introduced. Discussions include the forces of lift, drag, thrust, and weight. Students also learn basic navigation including map reading, course plotting, and the effects

of wind. The portion on the Human Requirements of Flight is a survey course on human physiology. Discussed here are the human circulatory system, the effects of acceleration and deceleration, and protective equipment. The leadership portion of this course, *“Communication, Awareness, and Leadership”*, stresses communications skills and cadet corps activities. Much information is provided on communicating effectively, understanding groups and teams, preparing for leadership, solving conflicts and problems, and personal development. Written reports and speeches compliment the academic materials. Cadet corps activities include holding positions of greater responsibility in the planning and execution of corps projects.

915 AFJROTC Advanced Drill

Grade 10 – 12

Level 2

1 Credit (Year)

The *“Advanced Drill”* course provides an in-depth introduction to military and civilian drill and ceremonies. This course concentrates on the elements of military drill, and describes individual and group precision movements, procedures for saluting, drill, ceremonies, reviews, parades, and development of command voice. Students are provided detailed instruction on ceremonial performances and protocol for civilian and military events and have the opportunity to personally learn drill. In addition, cadets will study the history, tradition, proper use, display and disposal of the American Flag. This course is designed to build confidence through concentration on attention to detail and communication skills. Though each class will follow an established lesson plan, most of the work is to be hands-on. Students must be a part of the cadet corps (taking one of the basic courses) in order to enroll in this class, but there is no prerequisite.

917 AFJROTC Basic Survival

Grade 10 – 12

Level 2

1 Credit (Year)

In the *“Basic Survival”* course students will learn how to survive in situations where life and safety depends on their decisions. They will learn the basic survival medicine procedures, treatments, and prevention measures when faced with emergency situations. The students will understand the necessities to maintain life, such as; building shelters, identifying and preparing food, fire craft, and water purification. They will learn the concepts of orienteering, traveling, land navigation, and map reading through the use of the compass and global positioning systems. The information and hands on skills learned in this course will aid the student throughout their life. Students must be a part of the cadet corps (taking one of the basic courses) in order to enroll in this class.

918 AFJROTC Advanced Survival

Grade 10 – 12

Level 2

1 Credit (Year)

“Advanced Survival” will build on the basic principles learned in Basic Survival. The course will include hands-on application of those basic skills. The student will be trained and earn national certifications in CPR/AED, Basic First Aid, Blood Borne Pathogen, Emergency Oxygen and Wilderness Emergency Care through American Safety and Health Institute. The student will also plan and coordinate the overnight Basic Survival field application portion of the course. Prerequisite: Successful completion of Basic Survival. Students must be a part of the cadet corps (taking one of the basic courses) and have successfully completed *“Basic Survival”* in order to enroll in this class.

Prerequisite: Basic Survival

919 AFJROTC Honors Aviation Ground School

Grade 11 – 12

Level 3

1 Credit (Year)

The material covered is an advanced, more in-depth study of the previous aerospace topics. This course is the foundation for students interested in receiving a private pilot’s license. When the course is completed the students will be prepared to take and pass the Federal Aviation Administration (FAA) written examination. The *Private Pilot Manual* is the primary source for initial study and review. The text contains complete and concise explanations of the fundamental concepts and ideas that every private pilot needs to know. The subjects are organized in a logical manner to build upon previously introduced topics. Subjects are often expanded upon

through the use of Discovery Insets, which are strategically placed throughout the chapters. Periodically, human factors principles are presented in Human Element Insets to help you understand how your mind and body function while you fly. Throughout the manual, concepts that directly relate to FAA test questions are highlighted by FAA Question Insets.

920 AFJROTC Leadership Laboratory Activity

Grade 9-11 Level 2 .5 Credit (Summer Program) 2 Credits, Adams State College

The “Leadership Laboratory Activity” is a 5-day session offered during the first week of summer. This course is provided for cadets who plan to return to the AFJROTC program the following academic year. The curriculum for this program is a mixture of in class leadership academics, field trips, and activities designed to promote and enhance the leadership skills of cadets who aspire to hold positions in the corps.

SCHEDULE WORKSHEET

Grade 9 Course/Credits	Grade 10 Course/Credits	Grade 11 Course/Credits	Grade 12 Course/Credits	Graduation Course/Credits

Statement of Policy

The Board declares it to be the policy of this district to provide an equal opportunity for all students to achieve their maximum potential through the programs offered in the schools regardless of race, color, age, creed, religion, gender, sexual orientation, ancestry, national origin or handicap/disability. The Board shall provide to all students, without discrimination, course offerings, counseling, assistance, employment, athletics and extracurricular activities. The district shall make reasonable accommodations for identified physical and mental impairments that constitute disabilities, consistent with the requirements of federal and state laws and regulations. This policy is available in the administrative office. For information regarding civil rights or grievance procedures, contact Dr. Timothy Glasspool, Superintendent, 900 Elicker Road, Plum, PA 15239, telephone 412-795-0100. For information regarding activities and facilities accessible to and usable by physically-challenged persons, contact Ms. Kathleen Shirey, Section 504 Coordinator.

Confidentiality

The Family Educational Rights and Privacy Act (FERPA) (20 U.S.C. § 1232g; 34 CFR Part 99) is a Federal law that protects the privacy of student education records. The law applies to all schools that receive funds under an applicable program of the U.S. Department of Education.

FERPA gives parents certain rights with respect to their children's education records. These rights transfer to the student when he or she reaches the age of 18 or attends a school beyond the high school level. Students to whom the rights have transferred are "eligible students."

- Parents or eligible students have the right to inspect and review the student's education records maintained by the school. Schools are not required to provide copies of records unless, for reasons such as great distance, it is impossible for parents or eligible students to review the records. Schools may charge a fee for copies.
- Parents or eligible students have the right to request that a school correct records which they believe to be inaccurate or misleading. If the school decides not to amend the record, the parent or eligible student then has the right to a formal hearing. After the hearing, if the school still decides not to amend the record, the parent or eligible student has the right to place a statement with the record setting forth his or her view about the contested information.
- Generally, schools must have written permission from the parent or eligible student in order to release any information from a student's education record. However, FERPA allows schools to disclose those records, without consent, to the following parties or under the following conditions (34 CFR § 99.31):

School officials with legitimate educational interest;
Other schools to which a student is transferring;
Specified officials for audit or evaluation purposes;
Appropriate parties in connection with financial aid to a student;
Organizations conducting certain studies for or on behalf of the school;
Accrediting organizations;
To comply with a judicial order or lawfully issued subpoena;
Appropriate officials in cases of health and safety emergencies; and
State and local authorities, within a juvenile justice system, pursuant to specific State law.

Schools may disclose, without consent, "directory" information such as a student's name, address, telephone number, date and place of birth, honors and awards, and dates of attendance. However, schools must tell parents and eligible students about directory information and allow parents and eligible students a reasonable amount of time to request that the school not disclose directory information about them. Schools must notify parents and eligible students annually of their rights under FERPA. The actual means of notification (special letter, inclusion in a PTA bulletin, student handbook, or newspaper article) is left to the discretion of each school.

For additional information, you may call 1-800-USA-LEARN (1-800-872-5327) (voice). Individuals who use TDD may call 1-800-437-0833.

Or you may contact them at the following address:

Family Policy Compliance Office
U.S. Department of Education
400 Maryland Avenue, SW
Washington, D.C. 20202-8520