# Course Guide

2017-2018



# **CHARLEROI AREA HIGH SCHOOL**

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# **GRADUATION REQUIREMENTS**

The minimum requirements for graduation from Charleroi High School are outlined in this section. Graduation is based on the subjects completed in grades nine through twelve. Students will be assisted in the development of a program of study in keeping with their interests and abilities, but they will be expected to assume responsibility for meeting the minimum requirements. In addition, Class of 2019, Class of 2020, and Class of 2021 students must reach a level of proficiency on the state mandated tests to be eligible for graduation.

# Charleroi Area High School Curriculum Program Options

### **Honors Course**

This curriculum will provide students with a strong academic base focusing on advanced levels of English, Math and Science. This curriculum is challenging and is appropriate for students who plan to attend a college or university, especially those intending on majoring in a math or science related field. Additionally, students that plan to attend a college or university with the intent of applying to a college honors program should also follow this curriculum.

### **Academic Course**

This curriculum will provide students with college preparatory coursework. Students who plan to attend a college, university, or nursing school should elect this curriculum. This program is also appropriate to prepare students for any technical school program.

### **Core Course**

This curriculum will provide students with a program that enables them to select courses to pursue marketable skills and meet entrance requirements for some post-secondary schools after graduation.

# **Graduation Requirements for the Honors Course**

To graduate from Charleroi Area High School, students must successfully earn a total of 25 required credits during grades 9-12.

Four English Language Arts Courses (Honors required grades 9-11 Honors or AP English required in 12		4.0 credits
Four Mathematics Courses (Honors Algebra II, Honors Geomet (Choice of Honors Calculus or Prob/		4.0 credits
Four Science Courses (Honors Biology, Honors Chemistry, and one additional from the followin Honors Chemistry II, Honors Anator	ng: AP Biology, AP Physics,	Minimum of 5.0 credits
Three Social Studies Courses (US/PA History, Modern American H	listory, and World Cultures required)	3.0 credits
World Language (Two years same language)		2.0 credits
Computers (Introduction to Computers Require (One additional computer class OR A		1.0 credit
Health and Physical Education	Class of <i>2018</i> Class of <i>2019, 2020, and 2021</i>	2.5 credits 2.0 credits
Arts and Humanities electives		2.0 credits

2.0 credits

- · Arts include art, engineering, family and consumer sciences courses, industrial technology courses, band, and chorus.
- Humanities include foreign language elective or extra social studies.

Additional Electives	Class of 2018	Minimum of
		1.0 credit
	Class of 2019, 2020, and 2021	Minimum of 1.5 credits

25.0 credits

In addition, Class of 2019, Class of 2020, and Class of 2021 students must reach a level of proficiency on the state mandated tests to be eligible for graduation. Students may be placed automatically into test strategies courses for additional remediation and test readiness.

# **Graduation Requirements for the Academic Course**

To graduate from Charleroi Area High School, students must successfully earn a total of 25 required credits during grades 9-12.

Four English Language Arts Cours (Academic English required 9-12)		4.0 credits
Four Mathematics Courses (Academic Algebra I, Academic Al	gebra II, Academic Geometry, Academi	4.0 credits ic Trig)
Three Science Courses (Academic Biology, Academic Che	mistry required)	3.0 credits
Three Social Studies Courses (US/PA History, Modern American	History, and World Cultures required)	3.0 credits
World Language (Two years same language)		2.0 credits
Computers (Introduction to Computers Required) (One additional computer class OR Architecture Design)		1.0 credit
Health and Physical Education	Class of 2018 Class of 2019, 2020, and 2021	2.5 credits 2.0 credits
Arts and Humanities electives		2.0 credits

- · Arts include art, engineering, family and consumer sciences courses, industrial technology courses, band, and chorus.
- Humanities include foreign language elective or extra social studies.

Additional Electives	Class of 2018	3.5 credits
	Class of 2019, 2020, and 2021	4.0 credits

25.0 credits

In addition, Class of 2019, Class of 2020, and Class of 2021 students must reach a level of proficiency on the state mandated tests to be eligible for graduation. Students may be placed automatically into test strategies courses for additional remediation and test readiness.

# **Graduation Requirements for the Core Course**

To graduate from Charleroi Area High School, students must successfully earn a total of 25 required credits during grades 9-12.

Four English Language Arts Courses (Core English required 9-12)

4.0 credits

Four Mathematics Courses

4.0 credits

(Integrated Math I/Algebra Ia, Integrated II/Algebra Ib, Integrated III/Applied Geometry and choose from Real World Math or Academic Algebra II)

Three Science Courses (Core Biology required)

3.0 credits

Three Social Studies Courses

3.0 credits

(US/PA History, Modern American History, and World Cultures required)

Computers

1.0 credit

(Introduction to Computers Required)

(One additional computer class OR Architecture Design)

Health and Physical Education

Class of 2018

2.5 credits

Class of 2019, 2020, and 2021

2.0 credits

Arts and Humanities electives

2.0 credits

- Arts include art, engineering, family and consumer sciences courses, industrial technology courses, band, and chorus.
- Humanities include foreign language elective or extra social studies.

Additional Electives

Class of 2018

5.5 credits

Class of 2019, 2020, and 2021

6.0 credits

25.0 credits

In addition, Class of 2019, Class of 2020, and Class of 2021 students must reach a level of proficiency on the state mandated tests to be eligible for graduation. Students may be placed automatically into test strategies courses for additional remediation and test readiness.

### **Grading Scale**

Student progress and achievement will be reported as follows:

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100%- 90% = A I = Incomplete
89 % - 80% = B
79 % - 70% = C
69 % - 60% = D
59 %- 0% = F
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### **Course Changes**

Course changes will be made **only** in the event of scheduling errors, academic misplacements and scheduling conflicts.

### **Class Standing**

The minimum number of credits necessary for advancement is listed below, although the principal may use discretionary powers in unusual circumstances to waive the standards:

Advancement to:

Grade 10 - 4.75 credits Grade 11 - 10.75 credits Grade 12 - 17.75 credits

Class rank will be reported at the end of the academic year only.

### **Credit Deficiencies**

A credit deficiency, which occurs through a subject failure, may be resolved by repeating the course or by attending summer school. It is the student's responsibility to reschedule any credit deficiencies. However, students must get approval in advance from the counselor. Correspondence courses are not accepted. Students are permitted no more than one summer school course per year unless approved by administration.

### Withdrawal from Class

No credit will be given for any course that has not been completed.

### **Graduation Honors**

A student is recognized as a high honor student in the Commencement Program if his/her final academic average at the end of grade 12 is a minimum of 94% or A average.

A student is recognized as an honor student in the Commencement Program if his/her final academic average at the end of grade 12 is a minimum of 84% or B average.

### **Advanced Placement and Honors Courses**

We are a percentage based school, and courses with an Honors or Advanced Placement designation will have a 1.05 multiplier. A student will not receive the 1.05 multiplier if they receive below an 80% for the quarter. These courses will also be given extra "weight" towards GPA. The grade-weight for these courses will be A -5 points, B -4 points, C -3 points, D -1point, and F –0 points. Listed below are the courses that receive extra "weight". All courses may not be offered every year depending on demand.

> AP English Honors English – 9,10,11, 12 AP US History Honors Algebra **AP Physics** Honors Geometry AP Biology Honors Algebra II AP Art – 2D Honors Trigonometry AP Art – 3D **Honors Calculus** AP Art - Drawing

Honors Statistics/Probability

Honors Biology Honors Chemistry Honors Chemistry II **Honors Organic Chemistry** 

**Honors Physics** 

Honors Anatomy & Physiology

Honors Spanish IV Honors French IV

# English

# **Summer Reading Policies**

Charleroi Area High School English Department

English course selection/enrollment will be completed with your guidance counselor and will be based upon meeting the prerequisites at the time of scheduling. If your final grade changes and meets the perquisites for a different English course, you must see your guidance counselor to retrieve your schedule card, have your current English teacher initial it, and then return the schedule card to your guidance counselor.

### Distribution

- 1. Summer reading assignments will be distributed to incoming Advanced Placement, Honors, and Academic English students at the end of the previous school year.
- 2. New students who enroll in the district over the course of the summer will receive summer reading assignments from the high school guidance office prior to the start of the school year.
- 3. New students who enroll in the district on or after the first day of school will receive summer reading assignments from their respective English teacher.

### **Requirements**

As summer reading work is effectively the first English unit of the year, it is imperative that students complete the required readings for effective participation in class and assessment.

- 1. Advanced Placement, Honors and Academic English students who receive summer reading assignments prior to the start of the new academic year are expected to have the assignments completed by the due date specified by the assigning teacher.
- 2. New <u>Advanced Placement English</u> or <u>Honors English</u> students who enroll in the district **on or after the first day of school** will be required to read all assigned reading AND complete all summer reading assignments no later than mid-quarter. Reading must be done in a timely manner in an effort to keep up with the pace of the class.
- 3. New <u>Academic English</u> students who enroll in the district **on or after the first day of school** will be required to read all assigned reading but will be exempt from written summer reading assignments. Reading must be done in a timely manner in an effort to keep up with the pace of the class.

### **Class Transfers**

- 1. Students are not permitted to transfer from one level English class to another after receiving summer reading assignments. However, if an extenuating circumstance occurs, the following applies:
  - Students who transfer from one class to another on or after the first day of school will receive a grade for the summer reading completed for the previous class. (If no work was completed the student will receive a zero for summer reading and will not be permitted to make-up work.) Once enrolled in his/ her new English class, the student will be required to read all of that course's assigned reading. Reading must be done in a timely manner in an effort to keep up with the pace of the class.

Core English 1 Credit
Grade 9

Prerequisite: Successfully complete English 8

The ninth grade Core course in English encompasses material in the areas of literature, vocabulary, writing, grammar and speaking in accordance with the Common Core standards. Students will read, analyze, write about, and speak about works of fiction and non-fiction throughout the year. Students can expect units on short stories, poetry, and at least one novel, the play Romeo and Juliet and a variety of non-fiction pieces including Elie Wiesel's Holocaust memoir, Night. Independent reading projects will also be utilized throughout the course. The variety of texts is designed to help students gain an appreciation of the written and spoken word. Students will be expected to complete research, write and revise single and multiparagraph writings, and create individual and group projects and presentations to demonstrate learning according to the Common Core Standards. In addition, students will take various benchmark exams and practice assignments to help prepare and monitor progress toward the forthcoming Keystone exams at the end of the tenth grade English course. The English test strategies course may be required as a supplement to this English course.

# Academic English Grade 9

1 Credit

Prerequisite: a 70% average in English 8 AND a 70% in Reading 8. Summer readings are required to be completed before the fall term begins.

The ninth grade academic course in English encompasses materials in the areas of literature, vocabulary, writing, grammar, and speaking in accordance with the Common Core Standards. Like the Core English course listed above, students in the academic course will read, analyze, write about, and speak about works of fiction and nonfiction throughout the year; however, students in the academic English course can expect to move at a faster pace. Students can expect units on short stories, poetry, novels, the play Romeo and Juliet, and a variety of nonfiction pieces including Elie Wiesel's Holocaust memoir, Night. Independent reading will also be utilized throughout the course. The variety of texts is designed to help students gain an appreciation of the written and spoken word. Students will be expected to complete research, write and revise single and multi-paragraph writings, and create individual and group projects and presentations to demonstrate learning according to the Common Core Standards. The writing of the course begins with the structure of a single paragraph and continues with composition development throughout the year. Students identify the audience and purpose for informational, narrative, and persuasive writing pieces. In addition, the course addresses the characteristics of effective writing: focus, content, organization, style and conventions. Through the writing process students learn to develop, organize, and express their ideas with clarity. In addition, students will take various benchmark exams and practice assignments to help prepare and monitor progress toward the forthcoming Keystone exams at the end of the tenth grade English course.

**Honors English** 

1 Credit

**Grade 9** 

Prerequisite: A 90% average in English 8 AND a 90% in Reading 8. Summer readings are required to be completed before the fall term begins.

The ninth grade Honors English program encompasses college preparatory material in the area of literature, vocabulary, writing, and speech. The literature covers a variety of genres from a blend of both classics and American literature. The course is designed to cover the ninth grade college preparatory curriculum plus additional work in the areas of literature, grammar, and speech. The intensity of instruction is significantly increased in the study of literature through greater number of literary selections provided for reading and analysis. Students are scheduled for Honors placement by virtue of their academic achievements, teacher recommendation, and quidance input. Summer reading assignments are incorporated into the high school Honors English program for every grade level and will be reviewed at the beginning of the year.

Core English Grade 10

1 Credit

Prerequisite: Successful completion of any ninth grade English Course

The Tenth Grade Core course in English encompasses material in the areas of literature, vocabulary, writing, and speaking. The course will also demonstrate, through the year's work, the common core standards for reading, writing, speaking and listening. Students will be expected to complete with efficiency the benchmarks based on the common core standards and objectives. All course work will be initiated through more hands-on analysis and more group integrated activities. The literature covers a representation of world literature including a variety of genres. Examples of genres include the following: nonfiction, fiction, poetry, and drama. Subgenres will also be analyzed within those genres. The vocabulary is contextually motivated and explores definitions, synonyms, antonyms and pronunciation. Multi-paragraph compositions will be developed based on writing standards of focus, content, organization, style and conventions. Oral presentation will include interpretation and explication of appropriate poems. Students will take the Keystone Literature Exam at the end of this course.

**Academic English** 

Grade 10

1 Credit

Prerequisite: A 70% average in Academic English 9 or an 80% average in Core English 9. Summer readings are required to be completed before the fall term begins.

The Tenth grade English Academic course encompasses college preparatory material in the areas of literature, vocabulary, writing and speaking. The course also demonstrates through heightened college preparatory work the common core standards for reading, writing, speaking and listening. Students will be expected to complete with a higher standard the benchmarks based on the common core standards and objectives. The literature covers a variety of genres from a representative list of classic and world literature. Examples of genres include the following: nonfiction, fiction, poetry, and drama. Subgenres will also be analyzed within those genres. Students will be expected to analyze, evaluate, and respond to the literature through multi-paragraph compositions while incorporating specific units of grammar, mechanics, usage and various writing modes based on the writing standards: focus, content, organization, style, and conventions. The academic student will also complete comprehensive units of vocabulary in preparation for the PSATs. In addition, the student will also complete contextual word studies. Students will also orally present passages from literature as well as interpretation and explication of selected poems. Students will take the Keystone Literature Exam at the end of this course.

Honors English Grade 10 1 Credit

Prerequisite: An 84% average in Honors English 9 or a 90% Academic English 9. Summer readings are required to be completed before the fall term begins.

The Tenth grade English Honors course encompasses college preparatory material plus additional work, which will be demonstrated through the common core standards for reading, writing, speaking and listening. The intensity of the course work will be especially expanded in the areas of literature and writing, not only in the area of analysis and interpretation, but also in the number of literary selections read. Students will be expected to complete with the HIGHEST academic standards the benchmarks based on the common core standards and objectives. The literature will cover a variety of genres from a representative list of classic and world literature. Students will be expected to analyze, evaluate, and respond to the literature through multiparagraph compositions incorporating specific units of grammar, mechanics, usage, and writing modes based on the Pennsylvania writing assessment domain scoring guides: focus, content, organization, style and conventions. The honors student will also complete units of vocabulary in preparation for the PSAT's. In addition, the student will orally present passages from literature as well as interpretation and explication of selected poems. Summer reading assignments are incorporated into the high school Honors English program for every grade level and will be reviewed at the beginning of the year. Students will take the Keystone Literature Exam at the end of this course.

# Core English 1 Credit

Grade 11

**Prerequisite: Successfully complete any English 10 course.** 

The Eleventh Grade Core course in English encompasses material in the areas of literature, vocabulary, writing, and speaking. The course will also demonstrate, through the year's work, the Common Core standards for reading, writing, speaking and listening. Students will be expected to complete with proficiency the benchmarks based on the common core standards and objectives. The literature covers a representation of American literature with a focus on modern American authors. Single and multi-paragraph compositions will be developed based on the Pennsylvania writing standards: focus, content, organization, style, and conventions. Individual oral presentations; group presentations; independent readings and corresponding projects; and technology based projects will be required throughout the year.

# Academic English

1 Credit

Grade 11

Prerequisite: A 70% average in Academic English 10 or 80% average in Core English 10. Summer readings are required to be completed before the fall term begins.

The Eleventh Grade academic course in English will prepare students for the demands of college level work in the areas of literature, vocabulary, writing, and speaking. The course will also demonstrate, through the year's work, the common core standards for reading, writing, speaking and listening. Students will be expected to complete with a higher standard the benchmarks based on the common core standards and objectives. The literature covers a representation of American literature with a focus on modern American authors. Students will be expected to analyze, evaluate, and respond to the literature through a variety of oral and written assignments. Single and multi-paragraph compositions will be developed based on writing standards: focus, content, organization, style, and conventions. Individual oral presentations; group presentations; independent readings and corresponding projects; and technology based projects will be required throughout the year.

**Honors English** 

**Grade 11** 

1 Credit

Prerequisite: An 84% average in Honors English 10 or 90% average in Academic English 10. Summer readings are required to be completed before the fall term begins.

The Eleventh Grade Honors course in English will prepare students for the demands of college level work in the areas of literature, vocabulary, writing, and speaking. The course will also demonstrate, through the year's work, the common core English standards for reading, writing, speaking and listening. The intensity of the course work will be especially expanded in the areas of literature and writing, not only in the area of analysis and interpretation, but also in the number of literary selections read. Students will be expected to complete with the highest academic standards the benchmarks based on the common core standards and objectives. The literature covers a representation of American literature with a focus on modern American authors. Students will be expected to analyze, evaluate, and respond to the literature through a variety of oral and written assignments. Single and multi-paragraph compositions will be developed based on writing standards: focus, content, organization, style, and conventions. Individual oral presentation; group presentations; independent readings and corresponding projects; and technology based projects will be required throughout the year. In addition to their considerable reading load during the year, honors students are expected to read four novels during the summer months; summer reading novels, depending on assignment, are assigned by the teacher, student selected from the AP book list, or student selected based on individual interest. Students will develop and exhibit a self-directed, independent learning style as well as a sharing of their insights orally, much in the style of a college seminar course.

Core English Grade 12

1 Credit

Prerequisite: Successfully complete any eleventh grade English course.

This course is designed to practice and polish the students' reading, writing, and speaking skills. At least three contemporary novels of high quality and social significance are carefully read, discussed, and written about extensively. Students will write and use Standard English and proper mechanics consistently. Students in this course will have access to digital media as well as standard books. Single and multi-paragraph compositions was well as a writing portfolio will be developed based on writing standards: focus, content, organization, style and conventions. Speaking skills will be addressed via multimedia projects and presentations. Students will also be expected to complete a senior project. Students will be guided through a career awareness/resume' building process. Students are expected to complete a resume', participate in a mock senior interview, and participate in a job shadowing experience.

# **Academic English**

Grade 12

Prerequisite: A 70% average in Academic English 11 or an 80% average in

Core English 11. Summer readings are required to be completed before the fall term begins.

The academic course is designed to prepare college-bound students to read, write and think with the competence necessary for them to succeed in post high school education. British literature and poetry, both classic and contemporary, are the focus of this college preparatory course. Students in this course will have access to digital media as well as standard books. Students will be expected to analyze, evaluate, and respond to the literature through a variety of oral and written assignments. Single and multi-paragraph compositions as well as a writing portfolio will be developed based on writing standards: focus, content, organization, style and conventions. Speaking skills will be addressed via multimedia projects and presentations. Students will also be expected to complete a senior project. Students will be guided through a career awareness/resume' building process. Students are expected to complete a resume', participate in a mock senior interview, and participate in a job shadowing experience.

# **Honors English 12**

1 Credit

1 Credit

Grade 12

Prerequisite: An 84% average in Honors English 11 or a 90% average in Academic English 11. Summer readings given at the end of 11th grade are required to be completed before the fall term begins.

The Twelfth Grade Honors course in English will prepare students for the demands of college level work in the areas of literature, vocabulary, writing and speaking. The course will also demonstrate, through the year's work, the common core English standards for reading, writing, speaking and listening. The intensity of the course work will be especially expanded in the areas of literature and writing, not only in the area of analysis and interpretation, but also in the number of literary selections read. Students will be expected to complete with the highest academic standards the benchmarks based on the common core standards and objectives. The literature covers a representation of British literature ranging from the 400's to the modern era. Students will be expected to analyze, evaluate, and respond to the literature through a variety of oral and written assignments. Single and multi-paragraph compositions as well as a major research paper will be developed based on writing standards: focus, content, organization, style and conventions. Individual oral presentation; group presentations; independent readings and corresponding projects; and technology based projects will be required throughout the year. Students will also be expected to complete a senior project. Students will be guided through a career awareness/resume' building process. Students are expected to complete a resume', participate in a mock senior interview, and participate in a job shadowing experience.

AP English 12 1 Credit

Grade 12

Prerequisite: An 84% average in Honors English 11 or a 90% average in Academic English 11. Summer readings given at the end of 11<sup>th</sup> grade are required to be completed before the fall term begins.

The rigorous, college-level course, approved by the AP College Board is designed to help advanced students to strengthen their skills as careful readers of challenging literary texts, and to become attentive to the role that language and form play in aesthetic production. Although the course will concentrate on "close reading," it is not restricted to the New Critical understanding of this practice; rather the course shall explore, in psychoanalytic, materialist, and deconstructive terms, a wide range of literary genres written in various historical periods. Poetry, drama, and prose works range from 1600 to the present; students will connect the works to the time period and the importance they play on society and vice versa. Extensive outside readings are mandatory throughout the year. Student in this course will have access to digital media as well as standard books. In Socratic-style, students will be called upon to share writings, analysis, and thoughts about assigned readings. Writing shall focus on expository and persuasive essays modeled upon the AP format. Students are required to submit several major papers, as well as an extensive research paper. Speaking skills will be addressed via multimedia projects and presentations. AP students will be guided through a career awareness/resume' building process. Students are expected to complete a resume', various types of applications, and use their skills in a mock senior interview. Students enrolled in this course shall be expected to participate in the AP Exam for university credit or advanced standing.

Completion of the AP course does not guarantee a satisfactory score on the College Board AP Exam.

Test Strategies: ELA .5 Credit

**Grade 9-11** 

Prerequisite: Standardized test score or teacher recommendation.

This course is designed to assist students in attaining advanced or proficient levels on state mandated testing in reading and writing. An additional goal of the course is to reduce testing anxiety associated with standardized testing. Using a diagnostic approach, students are provided with valuable, guided practice in reading and writing selections. Students are taught to use appropriate reading comprehension strategies to successfully complete reading performance tasks and are taught a systematic approach to writing a successful Constructed-Responses. The course materials and instructions are highly differentiated to accommodate for learner differences. The course reinforces core concepts taught and applied in English courses. In addition, students are taught essential skills for vocabulary recognition and comprehension. Writing practice focuses on enhancing the student's ability to answer Constructed-Response questions with a focus on the ability to explain, analyze, describe, or compare.

# **English Electives**

These courses will not be offered every year.

# Communication Skills Grade 9-12

1/2 Credit

(This course will not be offered every year)

Whether public speaking is something that you love to do or something that you know you need to improve, this is the course for you. This course is designed to show you that public speaking does not have to be intimidating, in fact, it can be fun! This course will provide students with the tools to both compose and deliver various types of speeches. In addition, through practice, students will develop the skills necessary to communicate in a variety of speaking situations such as small and large group discussion with a variety of audience members. The positive atmosphere maintained in this class sets the tone for a valuable and successful learning experience.

# **American Drama**

1/2 Credit

**Grade 10-12** 

Prerequisite: Successful completion of English 9.

(This course will not be offered every year)

"My greatest hope for a play is always that it might prove generative of thought, contemplation, discussion—important components of what I think we want from our entertainments...I have always believed theater can be a useful part of our collective and individual examining." Tony Kushner, from Homebody/Kabul

This course uses US American theater as a means to analyze change. The theater is a place where change and a call to action for change is often articulated. Drama often acts as a catalyst to challenge and change societal norms. We will consider the notion that theater does not only reflect the world, but also attempts to change it—to make it better. In order to accomplish this goal, we will read plays, theater reviews, literary criticism, write thoughtful and thought provoking responses and have meaningful class discussion. Film comparisons or short performances may accompany some plays. A variety of projects and assignments, quizzes, and exams will be used to assess performance in the class. This class is less about performing and more about discussing the impact of drama and theatre on society. If you are a person that loves to read and participate in class discussion, this class is for you!

# Creative Writing I Grade 9-12

1/2 Credit

(This course will not be offered every year)

Are you a creative person? Do you enjoy personal journaling, story writing, poetry writing, or lyric writing? If so, Creative Writing I is the perfect course for you to explore the powers of writing within your life. This course will expose you to a variety of writing types including short story fiction, poetry, and non-fiction writing. Additionally, it will help to facilitate creativity by introducing many writing exercises designed to draw from and expand upon your powers of observation, imagination, and language use. Ideas will be sparked, confidence acquired, and you'll gain a sense of purpose within your writing. Most writings will be shared in the classroom forum for student-to-teacher and peer-to-peer critiquing, editing, and revision. At the culmination of the course, students will have a working portfolio with many pieces of original writing and a collection of exercises from which they might create more original works.

# Creative Writing II Grade 10-12

1/2 Credit

Prerequisite: Successful completion of Creative Writing I.

(This course will not be offered every year)

Creative Writing II will expand upon the foundations of Creative Writing I. Students will learn complementary and more advanced writing exercises and workshop techniques allowing the student to continue developing his/her creative process. Students will produce new works and will also revise elements of the original portfolio. A primary focus of the Creative Writing II course allows the students to select an independent area of study; students will select a primary interest area (short story, poetry / lyric writing, non-fiction writing) and compose a work or collection of works based upon student interest and ability level. The focus of this course will be to produce multiple finished-product writings that have undergone multiple revisions and are worthy of productions in a student publication. At the culmination of this course, students will assemble a classroom publication of works submitted by each member of the course. The publication will be designed by the students to display their creativity through both the writing of the pieces and visual arrangement of the pieces and supplemental artwork. Additionally, students will be encouraged to enter their finished products within the many scholarship and writing competitions that are advertised each year.

**World Mythology** 

Grade 10-12

Prerequisite: Successful completion of English 9.

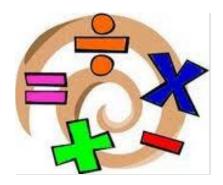
(This course will not be offered every year)

Have you ever wanted to escape to a magical land? Have you ever wondered if a commoner can really become a prince or princess? Was one man *really* able to pull a sword from a stone and rule all of Britain? Did the ancient Mayans really predict the end of the world? How often did Gods and Goddesses champion Greeks and Romans? Was the creation of the Aztec world really reliant on two or three "people"? Well...take World Mythology and find out! In this course we will explore a variety of creation myths, classical myths, Arthurian legend, tales of rags to riches and much more! A variety of projects and short writing assignments (in the proper formats, of course) will accompany each tale. Film study comparisons may be necessary to some of the myths and tales as well. Be ready for a quiz or two per story, but most of all...ENJOY what we read! So much of what current society is built upon are the ideals and dreams of some of the characters and civilizations we will discover. If you are creative and love a good story, this is the class for you!

1/2 Credit

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# Math



# What math class do I take next year?

Currently Enrolled in	With This Average	Take Next Year
Math 8	- 0-89%	Algebra IA
Middle 0	90-100%	Algebra I
	, 0-69% , 70-79%	Algebra IA Algebra IB
Accelerated Math 8	80-100% and fail Algebra IA final	
	80-100% and pass Algebra IA final	Algebra I
	- 60-69%	Algebra IB
Algebra I	70-89%	Academic Algebra II
	90-100%	Honors Algebra II
Algebra IA	- 60-89%	Algebra IB
Algebra IA	90-100%	Algebra I
	- 60-89%	Applied Geometry
Algebra IB	90-100%	Academic Algebra II
	- 60-69%	Applied Geometry
Academic Algebra II	70-100%	Academic Geometry
	90-100%	Honors Geometry
Honors Algebra II	- 60-83%	Academic Geometry
Hollora Algebra II	84-100%	Honors Geometry

# What math class do I take next year?

Currently Enrolled in	With This Average	Take Next Year
Applied Geometry	60-100% in 10th grade 60-89% in 11th grade 90-100%	Academic Algebra II Real World Academic Algebra II
Academic Geometry	60-69% in 11th grade 60-69% in 10th grade 70-100% 90-100%	Real World Academic Trigonometry Academic Trigonometry Honors Trigonometry
Honors Geometry	60-83% 84-100%	Academic Trigonometry  Honors Trigonometry
Academic Trig	60-74% - 75-100% 90-100%	Real World Honors Prob/Stats Honors Calculus
Honors Trig	60-69% 70-100% 80-100%	Real World Honors Prob/Stats Honors Calculus

Algebra IA 1 Credit

**Grade 9** 

Prerequisites: Successful completion of Math 8; less than 70% average in Accelerated Math 8.

Algebra 1A is the first half of the study of Algebra 1. Students will be introduced to variables, function patterns, and graphs while exploring rational numbers. Solving equations will be the foundation for this course as the concepts will also be used to solve inequalities. Students will make connections between functions, tables, and graphs and begin to explore different forms of equations and their graphs. Upon successful completion of this course, students will take Algebra IB.

Algebra IB 1 Credit
Grade 10

Prerequisites: A 70-79% average in Accelerated Math 8; an 80-89% average in Accelerated Math 8 without a passing score on the Algebra IA final exam; a 60-89% average in Algebra IA; a 60-69% average in Algebra I

Algebra 1B is the second course in the Algebra 1 curriculum. The course will begin by reviewing concepts learned in Algebra 1A, then an in-depth look at linear equations. The course will then move onto systems of equations and linear inequalities, properties of exponents, operations with polynomials, and factoring quadratics. Students will take the Algebra 1 Keystone exam at the end of this course.

# **Applied Geometry**

1 Credit

**Grade 11** 

Prerequisites: A 60-89% in Algebra IB; a 60-69% in Academic Algebra II; a 60-69% average in Academic Geometry during 11th grade

Applied Geometry requires successful completion of Algebra IA and IB. This course will review some algebra concepts such as systems of equations, polynomial functions, and factoring. The course will then focus on the study of points, lines, planes, angles, polygons, and circles. Applied Geometry takes a less theoretical approach then its academic counterpart, and focuses more on real world applications.

Real World Math 1 Credit
Grade 12

Prerequisites: A 60-89% average in Applied Geometry during 11th grade; a 60-74% in Academic Trigonometry; a 60-69% in Honors Trigonometry

Real World Math is a course designed to help students prepare for the math of everyday life. Skills like writing checks, balancing a checkbook, filing tax forms, filling out loan applications and many others are presented. In addition, valuable information about making budgets, buying automobiles and houses, choosing insurance coverage, using credit and other daily life issues

are covered. This course will help prepare the student for the math needed to succeed in day-to-day life.

# Academic Algebra Grade 9

1 Credit

Prerequisites: A 90% average in Math 8; an 80% average and pass Algebra IA final exam in Accelerated Math 8; a 90% average in Algebra IA

Algebra, I is an introduction to the study of algebra. The structure and properties of real numbers are used to simplify expressions and solve equations with one variable. Problem solving skills are improved by using variables to write equations and solve them. As various problem-solving techniques are developed they are applied to problems including age, coin mixture, uniform motion, ratio and percent. Factoring is introduced and used to solve quadratic equations. Daily practice of the skills introduced in the classroom is an absolute necessity for success. A minimum of 30-45 minutes of practice outside class every day will be necessary. Successful completion of this course will provide the basis for continued mathematical challenges presented in geometry and Algebra II. Students will take the Keystone Algebra test at the end of this course.

# Academic Algebra II Grade 10

1 Credit

Prerequisites: A 70-89% average in Algebra I; a 90% average in Algebra IB; a 90% average in Applied Geometry during 11th grade; successful completion of Applied Geometry during 10th grade

After a brief review of basic mathematical skills and Algebra 1 concepts, the student is introduced to many new concepts such as linear equations and inequalities, systems of equations and inequalities, the complex number system, and rational exponents. The course also puts a lot of emphasis on quadratic polynomials and quadratic equations. The student will learn how to factor this type of equation and they will be responsible for graphing the equation and describing its characteristics.

# **Academic Geometry**

1 Credit

Grade 11

Prerequisites: A 70% average in Academic Algebra II; a 60-83% in Honors

Algebra II

Geometry is the study of points, lines, planes, angles, polygons, and circles. Practice will include examples, hands on activities, visual thinking, and written exercises. Students will be tested on material to measure understanding and retention of what has been learned. This course may be taken concurrently with Algebra II.

# **Academic Trigonometry**

1 Credit

**Grade 11** 

Prerequisites: A 60-69% in Academic Geometry during 10<sup>th</sup> grade; a 70% average in Academic Geometry; a 60-83% in Honors Geometry

This course is an integrated course of Academic Algebra III and Trigonometry. Students in Academic Algebra III/Trigonometry will study concepts from geometric, graphing, and algebraic perspectives. The six major trigonometric functions are studied through the use of reference angles and the unit circle. Students will explore advanced algebra topics including radical equations and explore conic sections and trigonometric identities such as the Law of Sines and the Half Angle Identity.

# Honors Algebra II

1 Credit

Grade 9

Prerequisites: A 90% average in Algebra I

After a brief review of basic mathematical skills and Algebra 1 concepts, the student is introduced to many new concepts such as linear equations and inequalities, systems of equations and inequalities, the complex number system, and rational exponents. The course also puts a lot of emphasis on quadratic polynomials and quadratic equations. The student will learn how to factor this type of equation and they will be responsible for graphing the equation and describing its characteristics.

# Honors Geometry

1 Credit

Grade 10

Prerequisites: A 84% average in Honors Algebra II; a 90% average in Academic Algebra II

This course deals with the study of points, lines, planes, angles, polygons and circles. Emphasis is placed upon proofs both direct and indirect. Accelerated geometry places a great deal of importance on the use of algebra, thereby introducing the student to analytical geometry.

# Honors Trigonometry

1 Credit

Grade 11

Prerequisites: A 84% average in Honors Algebra II; a 90% average in Academic Algebra II

This course is an integrated course of Algebra III and Trigonometry. Students in Honors Algebra III/Trigonometry will study concepts from geometric, graphing, and algebraic perspectives. The six major trigonometric functions are studied in depth and are the emphasis of the course. Some advanced algebra topics are also studied. Students will solve radical equations, explore conic sections, and study trigonometric identities such as the Law of Sines and the Half Angle Identity. Additionally, students will discover graphs of functions and their translations. Such graphs will include conic sections, parabolas, circles, ellipses, radical functions, and their inverses. Graphing calculators and laptops will be utilized in this class.

Honors Calculus 1 Credit

Grade 12

Prerequisites: A 90% average in Academic Trigonometry; an 80% average in Honors

Calculus is the reformulation of elementary mathematics through the use of a limit process. Actually, the study of Calculus involves three distinct stages: Pre-Calculus Math (analytic geometry, functions, etc.), the limit process, and new calculus formations (derivatives and integrals). Extensive use is made of programmable graphics calculators in both problem solving and exploration.

## **Honors Probability/Statistics or**

Honors Probability/Statistics with College Credit 1 Credit (Can be taken as a College in the High School Course through the University of Pittsburgh) Grade 11, 12

Prerequisites: A 75% average in Academic Trigonometry; 70% average in Honors Trigonometry

This course teaches methods of descriptive and inferential statistics. Topics include data collection and description, hypothesis testing, correlation and regression, the analysis of variance, and contingency tables. Students will draw statistical conclusions about populations based on data collected from a sample. Students may opt to participate in the College in High School option, enabling them to receive college credits through the University of Pittsburgh. Students interested in this course should have successfully completed Algebra I, Algebra II, and Geometry.

Test Strategies: Math 1/2 Credit

**Grade 9-11** 

Prerequisites: Standardized test score or teacher recommendation.

This is a course designed to assist students in attaining proficiency on the Algebra I Keystone exam. Course content focuses on the two modules that form the Algebra I Keystone exam: Module 1 (Operations and Linear Equations and Inequalities) and Module 2 (Linear Functions and Data Organizations). Students will also learn test taking strategies.

# Social Studies



# US/PA 1 Credit Grade 9

Students will complete a study of the major themes in our country's history through the use of all of the social sciences, highlighting history, geography, economics, political science, and sociology. This course is a chronological study of America from the Jacksonian Era to the beginning of the twentieth century. A lecture/discussion format is used, and textbooks, maps, worksheets, and videos are utilized. Individual teachers will add, at their discretion, compositions, book reports, three-dimensional projects, oral histories, historical readings, and library research as needed to enhance learning. At the conclusion of this course, students will continue with Modern America/PA Studies.

# Modern America Grade 10

1 Credit

Students will complete a study of the major themes in our country's history, from WWI to modern day America, through the use of all the social sciences highlighting history, geography, economics, political science, and sociology. This course is in a lecture/discussion format utilizing textbooks, maps, worksheets, videos, and supplemental historical readings concerning American heritage. Individual teachers will add, at their discretion, compositions book reports, three dimensional projects, oral histories, and research as needed to enhance learning.

# World Cultures Grade 11

1 Credit

World Cultures is a World History course that is the chronological study of world history from the Middle Ages to the Industrial Revolution. Students will be expected to develop a global perspective of the history, geography, government, economy, and social structure of other countries. Students will investigate and discuss the historical importance of these countries' changing political structures through time. As the course progresses, students will develop their reading, writing, and discussion skills through group projects, research, hands-on geography, interdisciplinary units, and critical thinking activities. The goal of the course is to provide students with a chronological sequence of events before American history, increase cultural awareness, and identify the influence of world history on American history.

# AP United States History Grade 11, 12

1 Credit

Prerequisites: Successful completion of US/PA and Modern America.

Advanced United States History is intended to prepare students for college level History courses. The course will require students to know and understand factual information and deal critically with the problems and events in U.S. History. They will assess historical materials, interpret their relevance, and determine their reliability. Students will develop skills to arrive at conclusions on the basis of an informed judgment. Students must evidence and make interpretations based on prior and newly learned knowledge. They will develop skills necessary to draw conclusions and base those conclusions on readings and research. The students will be required to present their ideas and evidence clearly and persuasively in an essay format, as well as an oral argument. Written expression and analysis will be an integral part of this course; therefore, competency of standard English grammar and usage is required, as well as mastery of the writing process. Students enrolled in this course shall be expected to participate in the AP Exam for university credit or advanced standing.

Completion of the AP course does not guarantee a satisfactory score on the College Board AP Exam.

# Political Science Grade 11-12

1/2 Credit

Political Science is a course intended to educate students about the United States government: its form, function, and effect. The students will study topics that include: the application of the Constitution to current day, court cases that shaped our government, political ideologies, and different forms of government used by other countries, interest groups, public opinion, and the media's influence on our society. The students will need to be able to discuss topics in class using information from the textbook, independent internet research, and personal experience. This class will deepen the basic knowledge base the students have about our country, and is intended for those students who already have an interest in government, the Constitution, and politics.

# Current Events Grade 11-12

1/2 Credit

Current Events is a course that is not rigidly designed; it is extremely topical and dependent on the "news of the day". The students will be exposed to local, national, and global news. The students will be expected to peruse news websites as homework on a regular basis. In this course, they will become literate about the world around them and will compare the tone of different news sources, such as FoxNews, CNN, NPR, and the BBC.

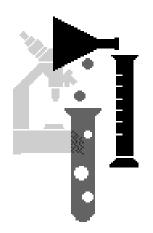
Sociology	1/2 Credit
Grade 12	

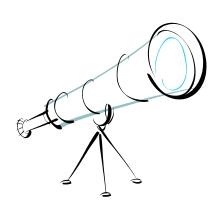
Sociology is the social science that studies human society and social behavior. Students will focus their attention on such things as the understanding of group behavior, interactions, present day social problems, basic skills in sociological research, cultural relations, adaptations, and conformity. The course also covers the social role of the environment, values and norms, tolerance for various ethnic and racial groups. As the course progresses students will build their reading, writing, and discussion skills based on reason and logic. Finally, students should be able to apply the sociological concepts to the understanding of their own lives.

# Psychology 1/2 Credit Grade 12

Psychology is the study of the brain and human behavior. The course is intended to prepare students for a college-level course. Throughout the course, students will study the development of learning and cognitive processes, memory and thought, sleep disorders and altered states of consciousness. In addition to these, students will study personality theories. Theorists such as Freud, Skinner, and Maslow will be taught. Students will also study the concept of abnormal behavior and focus on varying types of disorders such as Bipolar, Obsessive-Compulsive, and Post-Traumatic Stress disorders. Because the course is college preparatory, students will be expected to have mastery of Standard Written English and oral communication skills.

# Science





Core Biology Grade 9 or 10 1 Credit

**Prerequisites: Successful completion of 8th grade Science.** 

This course is designed to provide the student with information and experiences in the fundamental principles of biology. The study of functional systems are areas emphasized in the Core biology course. In this course students are exposed to many interesting and up-to-date class discussion topics, as well as fascinating experiences. Skills such as measuring, weighing, using the microscope, and interpreting data are developed while studying such topics as cells structures, genetics, and plant and animal dissections. This required science course covers the most relevant topics in biology. Students will take the Keystone Biology Exam at the end of this course.

# Academic Biology

1 Credit

Grade 9

**Prerequisites: Successful completion of 8th grade Science** 

Biology begins with a discussion of the unique properties of living organisms that set them apart from the non-living. The presentation of molecular and cellular biology follows, and gives a background for the concepts of reproduction and genetics. Understanding the continuity of life and the transmission of characteristics to offspring by hereditary determiners will give meaning to organic variations and scientific classification. Units dealing with microbiology, multi-cellular plants, invertebrate animal life, and the vertebrate animals follow in logical sequence. The progression from cell to protozoa to plant and animals will come naturally. In this systemic approach to the study of biology, the student discovers unity in the organisms. Students will take the Keystone Biology Exam at the end of this course.

Honors Biology

1 Credit

Grade 9

Prerequisites: An 80% average in 8th grade Science.

This course is designed to be an introductory course for college students intending to major in science or a related field. Students who successfully complete this course will accelerate their high school science sequence by taking chemistry in  $10^{th}$  grade, physics in  $11^{th}$  grade and an advanced placement science course in  $12^{th}$  grade. Course topics include: Principles of Cell Biology, Principles of Genetics, Principles of Evolution, Exploring Diversity, Exploring Plants and Exploring Invertebrates and Vertebrates. Students will take the Keystone Biology Exam at the end of this course.

# **Biology Keystone Strategies**

Grade 9-11

Prerequisites: Standardized test score or teacher recommendation

This is a course designed to assist students in attaining proficiency on the Biology Keystone exam. Course content focuses on the modules that form the Biology Keystone exam: Module A (Cells and Cell Processes) and Module B (Continuity and Unity of Life).

# **Earth/Space Science**

1 Credit

1/2 Credit

**Grade 10-12** 

Prerequisites: Successful completion of Biology.

Earth Science is a detailed look at our planet and the processes that have shaped it. During the one year course, students will be exposed to important concepts in astronomy, meteorology, geology, the natural gas industry including Marcellus Shale drilling, and physical oceanography. The point of the course is to expose the students to the various fields in the earth sciences and to the basic content in those fields.

# Astronomy I Grade 11, 12

1 Credit

Prerequisites: Successful completion of Biology.

This course provides a broad descriptive survey of astronomy. Topics covered include the night sky, seasons, moon phases, eclipses, tides, telescopes, light, properties of stars, stellar evolution, the Milky Way, galaxies and cosmology. This course also provides students with a survey of our solar system, including the Sun, the planets and their satellites, asteroids and comets. The history of astronomy and exploration of the solar system is also covered. Students should have a fundamental background in chemistry and physics. The school's planetarium is used to further reinforce learning in the classroom.

# Astronomy II/Meteorology

1 Credit

Grade 12

Prerequisites: Successful completion of Astronomy I.

Astronomy II is a modern astronomy course offered only to students who have completed the requirements of Astronomy I. This course covers information on the inner working of our cosmos and includes topics on spectroscopy, telescopes, the formation of our solar system, stellar evolution, and the study of galaxies. The course will also include individual research projects. Second semester of this course is designed as an introduction to the study of weather, climate and the atmosphere. Topics include solar radiation, the green house effect, temperature, humidity, clouds, air pressure, forecasting and severe weather.

# **Honors Anatomy & Physiology**

1 Credit

**Grade 11, 12** 

Prerequisites: Successful completion of Honors Biology, a 70% average in Academic Biology, or an 80% average in Core Biology.

Anatomy and Physiology is essentially the study of the human body. Course contents includes studies of the major body systems (integumentary, muscular, circulatory, skeletal, muscular, reproductive and nervous) as well as how the body works. Surface and internal investigations will be done through the dissection of cats. This course is designed for students intending to continue studies in the biological sciences or an occupation that requires a strong background in sciences such as nursing, medical assistants, physical therapists, etc.

## AP Biology Grade 11, 12

1.5 Credits

Prerequisites: An 84% average in Honors Biology and Honors Chemistry or a 90% average in Academic Biology and/or Academic Chemistry.

Advanced Placement Biology is a course designed for students that have a strong interest in, or desire to pursue a career in, the sciences. The AP Biology course provides an advanced science course taught on a college entry level. The basic text is a college freshmen text. Course topics include: Biological chemistry, Cell structure and function; Molecular genetics; Heredity: Evolution; Plants: Animals: and Ecology. Laboratory activities include: Mitosis and Meiosis; Plant Pigments and Photosynthesis; Cell Respiration; Transpiration; Diffusion and Osmosis; Enzyme Catalysis; Molecular Biology; Genetics of Organism; Animal Behavior; Population Genetics and Evolution; Physiology of the Circulatory system and dissolved Oxygen and Aquatic Primary Productivity. At the conclusion of the course, students may take a test prepared by the College Entrance Examination Board. The results will be certified by the testing agencies to college admissions offices for a possible standing and/or credit in the freshman year at college.

**Requirement:** The student will also do a written and oral report on current event issue in Biology

Students enrolled in this course shall be expected to participate in the AP Exam for university credit or advanced standing.

Completion of the AP course does not guarantee a satisfactory score on the College Board AP Exam.

# Physical Science Grade 9-12

1 Credit

This is a survey course of the concepts taught in chemistry and physics. This course will explore the relationship between matter and energy. This course will investigate and explore the force of motion, the chemical and physical properties of mater, certain interactions of matter with the world and the forms and properties of energy. This course uses hands on laboratory investigations to supplement the lecture. By the end of the course students should have the basic foundations of chemistry and physics.

# Academic Chemistry Grade 10

1 Credit

Prerequisites: Successful completion of Biology and an 80% average in Algebra I or 90% average in Algebra 1B

This course is designed to provide college-bound students a solid foundation in Chemistry. Chemistry is the study of matter and change. In class, we will focus using chemistry to explain how and why things happen in both lab and the real world. Class activities will consist of lecture, chemical demonstrations, group discussion and lab work. Students will be expected to regularly communicate their understanding of material through written work and lab reports. In addition, chemistry is a quantitative science and students should expect mathematical problem solving to be a regular part of the class. Among the topics covered in class are metric system and measuring, atomic theory, chemical and physical changes, the Periodic Table, chemical bonding and reactions, heat and energy.

### Honors Chemistry Grade 10

1.5 Credits

Prerequisites: Concurrently enrolled in Algebra 2 and successful completion of Honors Biology or 90% average in Academic Biology.

This course is designed for college-bound students that will likely pursue an eventual career in a science related field. Class activities will consist of lecture, group work, problem solving and lab-based inquiry. While class time will focus on solving problems, working in lab and discussing concepts, students should expect to complete a significant portion of the work outside of the classroom. Chemistry at this level is largely quantitative and is recommended that students be highly proficient in mathematical reasoning. In addition, students will be required to communicate their understanding of lab activities and class concepts through formal lab reports. Among the topics covered in this course are Atomic Theory, Periodic Law, chemical bonding and reactions, quantitative chemistry and kinetic molecular theory. It is strongly recommended that students who wish to take upper-level science courses during their senior year complete Honors Chemistry I.

#### **Honors Organic Chemistry**

1 Credit

**Grade 11-12** 

Prerequisites: An 84% average in Honors Chemistry I or an 90% in Academic Chemistry.

The goal of this semester course is to provide a basic introduction to the fundamental principles of organic chemistry. Through self-guided instruction as well as participation in online discussions, you will learn the basics of molecular orbitals and bonding, organic nomenclature, structure, stereochemistry and simple organic reactions. In addition, you will participate in 3 to 6 after-school labs. Each of the labs will cover a skill or concept that students will be likely to encounter in college organic chemistry courses. While this course is not meant to replace other full-year science courses, it will build a solid foundation for those students that will seriously pursue the fields of chemistry/biology in college. Course work will consist of weekly study guides and online discussion questions. Students are expected to spend to 3 hours per week working through concepts and resources on Edline.

Students need to apply to take this course. Forms can be obtained from the Chemistry teacher.

#### Honors Chemistry II

1.5 Credits

**Grade 11, 12** 

Prerequisites: An 80% average in Algebra II plus an 84% average in Honors Chemistry or 90% average in Academic Chemistry.

This course will serve as a follow-up to Academic and Honors Chemistry aimed at students who will be studying chemistry or science in college. Grading will be based primarily on lab work, reports and exams. Labs will be used weekly to introduce and apply major concepts. Students will be expected to effectively communicate lab observations and results, as well as plan, modify and carry out their own lab procedures. Quantitative analysis will be greatly emphasized as topics such as molar concentration, solubility and ionization, oxidation/reduction, electrochemistry and reactions rates will be studied. Students will apply their comprehensive knowledge of chemistry to identify unknowns and report their findings. Major topics of study are Thermochemistry and Energy, Chemical Equilibrium, Acids and Bases, Solubility and Ionization, Oxidation-Reductions, Organic Chemistry.

#### **Academic Physics**

1 Credit

**Grade 11 or 12** 

Prerequisites: Successful completion of Trigonometry or taking Trigonometry concurrently.

Academic Physics takes a less mathematical approach to describing the physical world than does Honors Physics. Motion, force, energy, and waves are investigated on a conceptual level through demonstrations, lab experiments, and discussions. Though less challenging mathematically, Academic Physics gives the student insight into the fascinating laws of the physical world.

Honors Physics Grade 11 or 12 1.5 Credits

Prerequisites: Concurrently enrolled in Trigonometry and successful completion of Honors Chemistry or 90% average in Academic Chemistry.

Honors Physics is designed for the college bound student who is considering a major in Science or Engineering. The course takes an algebra-based mathematical approach to describing the physical world and how nature works. Many demonstrations, lab experiments, and discussions explore a variety of topics: Newtonian mechanics; work, energy and power; and mechanical waves and sound. It will also include electric circuits and light properties. Though challenging, the interested student will find that physics isn't just confined to the classroom, but is everywhere and it can be fun!

AP Physics - B1 Grade 11, 12 1.5 Credits

Prerequisites: An 84% average in Honors Physics.

Advanced Placement Physics is a college level course for the student with a desire to pursue a career in science or engineering. The course covers Newtonian mechanics (including rotational dynamics and angular momentum), work, energy, and power; and mechanical waves and sound. It will also introduce electric circuits and light properties (including mirrors and lenses.) Along with demonstrations and laboratory work, the course places an emphasis on analytical problem solving skills. The course covers the material included on the standard Advanced Placement Exam prepared by the College Entrance Examination Board. The results will be certified by the testing agency for possible credit in the freshman year of college. Students enrolled in this course shall be expected to participate in the AP Exam for university credit or advanced standing.

Completion of the AP course does not guarantee a satisfactory score on the College Board AP Exam.

## Computers and Business





**Personal Finance** 

1/2 Credit

**Grade 11-12** 

Prerequisites: Successful completion of 10<sup>th</sup> grade

The goal of Personal Finance is to help students to become financially responsible members of society. This course will develop students understanding and skills in such areas as banking, credit cards, loans, housing, saving, investing, taxes, and insurance. Students will analyze their personal financial decisions as well as evaluate the costs and benefits of their decisions. This course will provide a foundation for making informed personal financial decisions that students may encounter in practical real life situations.

Accounting I Grade 10-12

1 Credit

Prerequisites: Successful completion of 9th grade.

Accounting I is the practice of keeping systematic financial records. The course is designed to provide students with an understanding of how business finances are managed. The accounting cycles for sole-proprietorships and corporations will be the focus of the class. This course is recommended for college-bound students interested in business, as well as career and vocational students.

**Accounting II** 

1 Credit

**Grade 11, 12** 

Prerequisites: Successful completion of Accounting I.

Accounting II provides students the opportunity to apply the basic principles in Accounting I to a variety of bookkeeping and accounting systems commonly found in business. The accounting activities for a corporation will be the focus of the class. Automated accounting will be utilized to complete various accounting processes. This course is recommended for college-bound students interested in business, as well as career and vocational students.

**Exploring Careers** 

1/2 Credit

**Grade 9-12** 

Prerequisites: Successful completion of 8th grade.

Exploring Careers takes a unique approach to career planning by using a self-discovery process to match a career area to a student and by equipping students with the tools they need to develop and implement their own personal career plans. Students who successfully complete this course will be more self-confident about taking responsibility for the education and career decisions that affect their lives. This course will assist students in planning for the future as well as preparing for employment.

#### **Business Law**

1/2 Credit

**Grade 10-12** 

**Prerequisites: Successful completion of 9<sup>th</sup> grade.** 

This course examines the American legal system and basic legal concepts. The purpose of the course is to understand the extent to which law relates to what one does. Emphasis is placed upon the application of law to the problems of the individual, business, and society. Students learn personal and practical applications of rules of law. This course is recommended to anyone considering a career in business, law, or political science.

#### **Introduction to Business**

1/2 Credit

**Grade 9-12** 

Prerequisites: Successful completion of 8<sup>th</sup> grade.

Introduction to Business will introduce students to the world of business and help prepare them for the economic roles of consumer, worker, and citizen. This course will assist students with the banking industry, consumer credit, prepare students for future employment, and help effectively perform their responsibilities as a citizen.

#### **Introduction to Computers**

1/2 Credit

Prerequisites: Successful completion of 8th grade.

Basic keyboarding skills using the home-row method will be developed and used throughout the course. Word Processing is introduced in this course. Students will learn how to build and maintain an electronic folder system. An online system will be used for students to upload course work and retrieve electronic materials as needed. Students will develop skills in preparing letters, tables, graphics, reports and multi-column newsletters. Spreadsheet is introduced in this course. Students will develop skills in creating a workbook, using editing and formatting tools, working with cells, columns, rows and sheets and basic formulas. Power Point is introduced in this course. Students will develop skills in navigating in Power Point, keying text on a slide, using view buttons and basic Power Point skills. Students will be introduced to Photostory.

#### Advanced Word Processing

1/2 Credit

**Grade 9-12** 

Prerequisites: Successful completion of Intro to Computers.

This course will further the study of word processing to emphasize formatting and production skills. Upon completion of the course, the student will have developed skills in preparing outlines, tables, graphics, merges, and text enhancement techniques such as borders, shading, and 3-D text. (Word 2007 & Publisher)

#### **Spreadsheets**

1/2 Credit

**Grade 9-12** 

Prerequisites: Successful completion of Intro to Computers.

This course will introduce students to spreadsheet applications such as financial statements and payroll calculations as well as various charts and graphs. Students will be introduced to Personal Finance.

#### Multimedia I/Web Page Design

1/2 Credit

**Grade 9-12** 

**Prerequisites: Successful completion of Intro to Computers.** 

This course will provide the student with an overview of multimedia. The students will learn to create multimedia presentations with PowerPoint and MovieMaker. The students will be required to use digital video camera and input audio to create these demonstrations. (Power Point 2007 and Moviemaker) The students will learn the fundamentals of designing web pages using Dream Weaver MX. Students will create web sites that include all aspects such as sound, video, graphics, and animation.

Multimedia I/Business Partnership course below is this same course as this but will also include a student project. Students can take this course or the course below.

#### Multimedia I/Business Partnership

1/2 Credit

**Grade 9-12** 

Prerequisites: Successful completion of Intro to Computers.

This course is the same as Multimedia/Web Page Design list above, but will also include a student-business project called Student Powered Solution (SPS). Students can take this course or the one above.

The Consortium for Public Education works with the SPS students and local businesses. SPS creates partnerships between schools and businesses to bring authentic assignments into the classroom. Students take on the role of business consultants, doing research, gathering data, engineering solutions and even designing, building and testing prototypes. In the classroom, students lead the learning. The teacher serves as a facilitator. At the conclusion, the students make formal presentations to their corporate client, just like a real consulting team would. These project-based learning experiences not only give kids a chance to apply their learning in subjects like science and math, even art, they also simulate the workplace environment and provide opportunities to practice the "soft skills" needed to be successful as part of a team. Participating companies benefit also. They get the fresh perspectives students can bring as well as a chance to help develop the region's workforce of tomorrow.

## World Language



Spanish I 1 Credit

**Grade 9-12** 

Prerequisites: Successful completion of English 8 and Reading 8.

How appealing is it to you to be able to converse with another person in a language other than your own? In our Spanish I classes, students will learn the basic vocabulary needed to communicate on such topics that appeal directly to them, such as friends, making introductions, dating, school sports-events... They will also discover the similarities between the Spanish and English languages, thereby increasing their own English vocabulary and helping them to better understand the language. Students will also compare the cultures of the different Spanish speaking countries with those of the United States. During this year of Spanish I not only will students begin to develop the four basic skills of listening, speaking, reading, and writing, they will also gain an insight into the ways of other people in the world.

Spanish II 1 Credit

**Grade 10-12** 

Prerequisites: Successful completion of Spanish I.

All areas of the previous year are reviewed and developed. This course helps students attain proficiency in the four skills of listening, speaking, reading and writing. The student will acquire a firm linguistic base, which is the foundation of effective communication and meaningful language proficiency. The language will be presented within the context of the contemporary Spanish-speaking world and its culture. The activities include oral communication fostering personal expression and conversation. A special focus will be the cultural awareness of the Spanish-speaking world and its people and also communication skills and vocabulary acquisition.

Spanish III 1 Credit

**Grade 11, 12** 

Prerequisites: Successful completion of Spanish II.

All areas of levels I and II are reviewed and more detailed and advanced grammar and usage are introduced. The basic objective of Spanish III is twofold: to help each student attain an acceptable degree of proficiency in the four skills of listening, speaking, reading, writing; to present the language within the context of the contemporary Spanish-speaking world and its culture. Reading short stories also will open doors to reveal the culture of Spain. The students will have the opportunity to express themselves orally and in writing through role-play and guided self-expression.

Honors Spanish IV 1 Credit

Grade 12

Prerequisites: A 70% average in Spanish III.

The students will continue with the grammar and vocabulary. There will be a deeper exploration into the Spanish culture and history. Reading short stories serves an essential role in the development of other language skills and cultural understanding. The students will have the opportunity to express themselves orally and in writing.

French I 1 Credit

**Grade 9-12** 

Prerequisites: Successful completion of English 8 and Reading 8.

It's fun to learn about France and the lives of French teenagers. In French I you will learn basic French vocabulary, a fundamental knowledge of the grammar structure and an opportunity to learn the cultural background of French speaking countries. Using the four basic skills of listening, speaking, reading, and writing students will develop these competencies.

French II 1 Credit

**Grade 10-12** 

Prerequisites: Successful completion of French I.

French II is a continuation of basic skills already learned in French I. You will increase your vocabulary and knowledge of French structure. You will also learn some geography of France and its culture through the use of maps, videos, and posters. Emphasis will be placed on conversation through further development of the audio-lingual skills.

French III 1 Credit

**Grade 11, 12** 

Prerequisites: Successful completion of French II.

In French III it is the goal for each student to attain an acceptable degree of proficiency by employing the four basic skills of language study. Students will also have the opportunity to gain knowledge about the history of France and of the French people and their customs.

Honors French IV 1 Credit

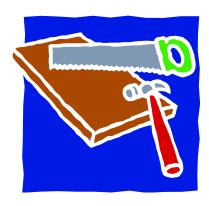
Grade 12

Prerequisites: A 70% average in French III.

French IV is a continuation of French III with a deeper exploration of French culture and history. There will be a continuation of the grammar and vocabulary with an emphasis on reading and appreciating French literature.

## Technology Education





#### Intro to Engineering Drawing

1 Credit

**Grade 9-12** 

Prerequisites: Successful completion of 8<sup>th</sup> grade.

This is an introductory course to drafting skills and practices. The students will be exposed to multi-views, obloquies, isometrics, and sections. Dimensioning will be part of the drawing. At the completion of the course the student will be able to read and draw most types of mechanical drawings. He or she will also be introduced to Computer Aided Drafting (CAD). With the explosion of technology, computers are the main tools for draftsmen & engineers. The student actually designs and constructs drawings on the machine. This class is a foundation for Advanced Engineering Drawing, Architecture Design and Architecture Design and Modeling. This course is an excellent learning opportunity for students planning a career in architecture or any engineering technical field. Math is an integral component of this course. Students should be able to work with fractions, measuring, and decimals.

#### **Advanced Engineering Drawing** Grade 10-12

1 Credit

Prerequisites: Successful completion of Introduction to Engineering Drawing.

This is a detailed in depth course in machine drawings. The student will draw detailed machine parts and understand the process and theory behind the industry and its function. He or she will design working drawings such as exploded views, orthographic assemblies, and isometric assemblies. Computer aided drafting (CAD) will also be a part of this course. The student will do the designing and drawing on the computer itself. This class is built on the processes and theories of Intro to Engineering Drawing. This advanced course is an excellent learning opportunity for students planning a career in the engineering or technical fields.

#### **Architecture Design Grade 11, 12**

1 Credit

Prerequisites: Successful completion of Advanced Engineering Drawing.

This is an introductory course to the field of Architectural design. The student will design and draw 2 different types of houses. At the completion of this course the student will be able to draw all 4 types of houses and draw all types of architectural drawings. He will also be able to read professional architecture prints. The student will be able to read and/or draw: elevations, floor plans, wall sections, stair sections, electrical plans & plumbing plans. Computer aided drafting will also be used in this course. The student will be instructed in designing their plans on the computer. This advanced course is an excellent learning opportunity for students planning a career in an architecture or engineering field.

<sup>\*\*</sup> This course can be used to fulfill the second computer requirement.

#### **Architecture Design and Modeling** Grade 12

1 Credit

Prerequisites: Successful completion of Architecture Design.

This is an advanced course in architecture. The student will design his or her own house and complete all the detailed drawings of it. After the drawings are completed the student will build to scale a framed model of the structure. We also try to put the students into a life-like situation with real clients. People who are wishing to build a house are brought in and we have the students design the house that their clients wish. This is an ideal learning situation. As in Intro to Engineering Drawing, Advanced Engineering Drawing and Architecture Design, the computer (CAD) will be used in designing the drawing. This course is an excellent learning opportunity for students planning a career in architecture or engineering.

#### Technology Education I **Grade 9-12**

1 Credit

Prerequisites: Successful completion of 8<sup>th</sup> grade.

Students enrolled in Technology Education will have the opportunity to study materials and processes used in manufacturing, cabinetmaking, and metal technologies. Students will produce useable products, one wood and one metal, as a vehicle to develop skills in areas which include band tools, power equipment, machining, welding/burning and finishing technology, designing, product planning, cost estimating, numerical control and tool maintenance are all concepts that will be introduced to the students through an activity based curriculum. This course will provide the student with the basic technological knowledge they will need to continue in technology. Material Process Technology is a pre-requisite for other Technology Education classes. Recommended for students pursuing a technical field.

#### **Technology Education II**

1 Credit

Grade 10-12

Prerequisites: Successful completion of Technology Education I.

Technology Education II is an in-depth study of technologies used in manufacturing, cabinetmaking and metal technologies. Students will design and develop individual products utilizing the basic skills gained in Tech Ed I along with the advanced skills they will develop in Tech Ed III. Students will have an opportunity to advance their knowledge and skills of the woodworking and metal work through an individual product. This hands-on class will expose them to the different types of manufacturing. Recommended for students pursuing a technical field.

#### Technology Education III

1 Credit

**Grade 11** 

Prerequisites: Successful completion of Technology Education II.

This course is designed around a student organized enterprise activity. These students have an opportunity to develop a manufacturing company that will be set up to produce a product. Designing and engineering, developing production systems, manufacturing products, marketing products, and performing financial activities are some of the concepts that will be explored during this activity. Industrial tours are a possibility.

#### Technology Education IV

1 Credit

Grade 12

Prerequisites: Successful completion of Technology Education III.

This course is designed around a student organized enterprise activity. These students have an opportunity to develop a manufacturing company that will be set up to produce a product. Designing and engineering, developing production systems, manufacturing products, marketing products, and performing financial activities are some of the concepts that will be explored during this activity. Industrial tours are a possibility.

## Family Consumer Sciences





#### Nutritional Awareness I Grade 9-12

1/2 Credit

Most of us take eating for granted. Rarely do we consider the overall effect food and nutrition have on our daily performance. From planning after school snacks to a complete family dinner, students will practice basic food preparation, sanitation, and kitchen safety skills, while analyzing the nutritional value of foods they prepare. Grades will be given on lab performance, notebooks, and paper and pencil tests. Group work required.

#### **Nutritional Awareness II**

1/2 Credit

**Grade 9-12** 

Prerequisites: Successful completion of Nutrition I.

Nutrition II picks up where Nutrition I leaves off. Yeast breads and baking take up the first nine weeks of the semester. Family meal prep and everyday meals will conclude the semester.

#### Parenting Grade 11, 12

1/2 Credit

Emphasis on parenting skills, responsibilities and rewards, caring for, nurturing, and guiding children, teen parenting, and strengthening the role of family. Topics include practical information on prenatal care, health and safety, nutrition and feeding, positive communication, and childcare alternatives. Grades will be given on projects (individual and group), notebooks, paper and pencil tests and infant simulator.

#### Child Development Grade 11, 12

1/2 Credit

Recommended for the junior or senior student thinking about a career in education or any field dealing with children. This course focuses on the application of child development principles to the care of children in small group settings. Provides instruction for setting up a developmentally appropriate environment. Helps students develop effective skills for guiding children and for keeping them safe and healthy. Covers planning and implementing curriculum that will meet children's needs and hold their interest. Grades will be given on lesson plans, observations, and paper and pencil tests.

#### Life 101 Grade 10-12

1/2 Credit

This course presents a realistic approach to the step-by-step problems encountered in everyday living. The course focuses on decision-making and management skills ranging from finding a job and a place to live to managing a paycheck. Other topics include using credit, savings, insurance, taxes, and how to do the laundry. Reading independently, note taking, discussion, observation and library research along with book tests, quizzes and projects are required elements of the course.

### Art



Art I 1 Credit

**Grade 9-12** 

Prerequisites: Successful completion of 8th grade.

Art I is a basic introduction to the art elements, perspective, color theory and the principles of design using a variety of art mediums that make up the foundations of the fine arts. Students will be introduced to the two-dimensional mediums of drawing, painting, printmaking and digital art. Introductory experiences with 3-dimensional media will be sculpture and ceramics. Development of artistic and perceptual awareness in art, the critical and appreciative study of art history and its analysis, and the development of basic art skills in selective art media are the primary goals.

Art II 1 Credit

**Grade 10-12** 

Prerequisites: Successful completion of Art I.

Art II continues to build on the art skills and concepts introduced in Art I along with a refinement of drawing, painting, printmaking, digital art, sculpture and ceramics. The course, however, involves a more intuitive approach as opposed to a strictly analytical approach to art elements and design. The recognition of multiple intelligences in perception is used to further the development of one's ability to see and therefore to create. An understanding of the relationships among art forms of different times, places and cultures, between the student's own work and that of others, and of personal interests and possible art careers will also be undertaken.

Art III 1 Credit

**Grade 11, 12** 

Prerequisites: Successful completion of Art II.

The Art III course offers further explorations into two-dimensional media with increased opportunities to draw and paint from observation including figure study, still life and portraiture. Printmaking will be used to master the concepts of the principles of design found in both fine art and commercial settings. An increasing concentration on three-dimensional media and techniques will also be emphasized using STEAM curriculum concepts. Advanced ceramic techniques will be used in the creation functional objects with sculptural elements and design. Studies in perceptual awareness, art history and art cultures play a major role in the three-dimensional aspects of art form as they continue to do so in the two-dimensional.

AP Studio Art 1 Credit

Grade 11, 12

Prerequisites: An 80% average in Art III.

The AP program in Studio Art enables highly motivated students to perform at the college level while still in high school. The AP Studio Art portfolio is a performance based exam rather than a written exam. Students are given the opportunity to complete one of three portfolios: Z-D Design, 3-D Design, or Drawing. The AP portfolio should be viewed as the culminating experience in a student's visual arts training. The end result is the student as a self-directed and self-motivated learner capable of thinking and acting independently in a creative manner. Completion of this AP course does not guarantee a satisfactory score on the College Board AP exam.

Digital Art 1/2 Credit
Grade 9-12

Prerequisites: Successful completion of 8th grade.

In Digital Art students will learn the fundamentals of the computer software Adobe Photoshop. Using Photoshop students will create their own original 2D art using the art elements and principles of design. Students will have hands on experience with the screen-printing process and know how to print on paper, fabric and explore other mediums. A basic introduction of the graphic design industry, digital contemporary art and how they have evolved since the introduction of the computer will also be included.

### Music



**Symphonic Band** 

**Grade 9-12** 

Prerequisites: Previous school band experience preferred.

Students will explore a wide variety of musical styles and cultures. Music theory and music history will also be discussed. The elements of style, rhythm, harmony, balance, blend. Intonation, and phrasing are among those studied in this class. This class provides the student with the opportunity to develop solo and small group performance skills. This group will perform at least two concerts and a PMEA adjudication. Extra practices and performances are required.

Piano

1/2 Credit

1 Credit

**Grade 9-12** 

Prerequisites: Successful completion of 8th grade.

This course is for the high school student who loves music and has an interest in learning to play the piano. Students will learn basic music theory in addition to learning basic piano skills. This class is useful for the music beginner as well as for a band/choir student who is interested in enhancing his/her skills by learning how to play the piano.

**Concert Choir** 

1 Credit

**Grade 9-12** 

Prerequisites: Previous choir experience preferred.

This course is open to all students in grades 9-12 who are interested in being a part of a choral group. In this ensemble, students will learn and perform a variety of repertoire in differing styles and musical genres. Throughout the course, students will expand their knowledge of music vocabulary relating to terms, signs, and symbols of music literacy. A focus will be placed on learning proper singing techniques and healthy vocal habits. Students will perform at least two concerts outside of the school day in which participation is required.

Show Choir

1 Credit

**Grade 9-12** 

Prerequisites: A student will be placed in this ensemble based on the student's musical ability. Acceptance is based on an audition. Previous choir experience is preferred.

This auditioned group is open to all students in grades 9-12. Students will audition in the spring of each year for membership the following year. This ensemble will be comprised of 16-24 students who will perform a variety of challenging pieces within the vocal jazz, pop, and musical theater genres. These students will also perform with concert choir, though they need not be registered for both groups. Throughout the course, students will expand their knowledge of music vocabulary relating to terms, signs, and symbols of music literacy. A focus will be placed on learning proper singing techniques and healthy vocal habits. The show choir will perform in a variety of settings throughout the year in which participation is required.

## Health and Physical Education





Health 1/2 Credit Grade 9

Prerequisites: Successful completion of 8<sup>th</sup> grade.

This course is designed to teach students to understand their bodies, both mentally and physically. The curriculum includes strong emphasis on drug, alcohol, tobacco, and sex education as a means of providing information and enabling students to make the correct choices as they go through life. Components of wellness, nutrition and fitness also are stressed empowering students to develop strategies for incorporating healthy habits into their lives and reducing the risk factors for common diseases.

#### Physical Education Grade 9-12

1/2 Credit

This course builds upon the skills and strategies for team sports, dual sports, lifetime sports, fitness and health that students learned in previous grades. Skill refinement, offensive and defensive strategies, coordination, technique, flexibility and fitness are some of the concepts that will be taught. Organized games are played with an emphasis on rules and the improvement of skills.

# Mon Valley Career & Technology Center

#### MON VALLEY CAREER & TECHNOLOGY CENTER Career and Technical Education Program of Studies

- 1. Students may elect for one, two, or three years of Career and Technical Studies.
- 2. Career or program specific mathematics is offered to interested students or students with a schedule conflict. Credits apply toward graduation requirements.
- 3. A student doing satisfactory work at the CTC and home school may be eligible for a paid work experience during school time in their field of study.
- 4. First year students will attend in the AM session. Second and third year students in a program attend in the PM session.

