

# **Covington Catholic High School**



## **COURSE DESCRIPTION CATALOG**

**2017 - 2018**

## Table of Contents

General Information.....	2-4
Course Offerings .....	5-8
Curriculum.....	9
Academic Support Program .....	10
Business Department.....	11
English Department.....	12-14
Fine Arts Department .....	15-16
Mathematics Department .....	17-20
Religion Department.....	21-22
Science Department.....	23-25
Social Studies Department.....	26-27
STEM Department.....	28
Technology (non-STEM) Department.....	29-30
World Languages Department.....	31-33
General Electives .....	34
Proposed New Courses .....	35
Revised Courses .....	36-37
Index .....	38-41

# GENERAL INFORMATION

## Purpose of the Curriculum Guide

This curriculum guide is published to give students and their parents an awareness of the curriculum offered at Covington Catholic High School. A brief description of the content and expectations for each course is included.

## Philosophy of the Curriculum

Recognizing that students have different academic abilities and educational needs, the Covington Catholic curriculum is designed to meet the potential of each student. The course curriculum is divided into the following broad categories:

- |                                    |                       |
|------------------------------------|-----------------------|
| 1. Academic -College Prep (CP) III | 4. Honors             |
| 2. Academic- College Prep (CP) II  | 5. Advanced Placement |
| 3. Academic- College Prep (CP) I   |                       |

Freshmen are placed in the various groups according to the results of the freshman placement test, grade school recommendations, and standardized testing.

Sophomores, juniors and seniors are placed in various courses as a result of personal interests and goals, educational proficiencies in subject areas, and previous teachers' recommendations.

The course designations 101/102, 110/111 indicate semester courses which must be taken in succession in order to receive course credit. Designating these courses as semester courses allows greater flexibility in scheduling upper level classes and establishes more pertinent 7<sup>th</sup> semester transcripts. Recommendations for course level changes (i.e. CPIII to CPII, CPII to CPI, CPI to Honors/AP or vice versa in any scenario) will be reviewed by the instructor during the spring when scheduling occurs.

Students may make changes in course recommendations in one of two ways:

1. Students may be permitted to move from the CPIII to a CPII or a CPII to a CPI level in required courses against the recommendation of the instructor. This will **ONLY** be permitted if scheduling allows and if the proper documentation is submitted per the guidance department's instructions.

Please note, however, that the above-stated policy does not apply to a student moving to a CPIII, CPII, honors or advanced placement course. Students **WILL NOT** be permitted to move to these levels without the recommendation of the instructor.

2. Students may be permitted to take an elective course for which he is not recommended. This also will **ONLY** be permitted if scheduling allows and if the proper documentation is submitted per the guidance department's instructions.

In addition, students who have failed an elective may be permitted to repeat the course if scheduling allows and if the proper documentation is submitted per the guidance department's instructions.

## Drop/Add Procedures

The drop/add period is as follows:

1. For full-year elective courses and first semester elective courses, the drop/add period will be in effect until the end of the second week of school in the first semester.
2. For second semester elective courses, the drop/add period will be in effect until the end of the second week of school in the second semester.

Only an instructor can recommend that a student drop a semester and/or full year elective course after the end of the drop/add period.



### Withdraw/Failing

1. For a full-year elective course, a student must withdraw from the class by the end of the third quarter to receive a WF on his official transcript.
2. For a semester elective course, a student must withdraw from the class by the end of the fourth week of the second quarter of the semester course to receive a WF on his official transcript.

If a student earns a WF in a course, it will appear on his transcript but will not influence his grade point average. **Any student receiving a WF cannot take it in summer school, but may repeat it during the academic year.** Only an instructor can recommend that a student drop a semester and/or full year elective course after the end of the drop/add period.

### Promotions

A student is promoted when he has completed the academic requirements for his grade level. These requirements are: 6 credits to be promoted to the 10th grade; 12 credits to be promoted to the 11th grade; and 19 credits to be promoted to the 12th grade. A student needs 26 credits to graduate.

### Failures

Failures in courses required for graduation (i.e. religion, English, social studies, mathematics and science) must be made up the same year in summer school.

### Advanced Placement Program

Advanced Placement (AP) enables a student to pursue college-level studies while still in high school. The College Entrance Examination Board provides detailed descriptions of college-level courses to high schools and the results of the examinations are sent to the colleges of the student's choice. Participating colleges grant credit and appropriate placement to students who qualify as a result of their examination scores. There is a test fee for each examination.

Students taking AP courses will have an orientation meeting each spring during the scheduling process. At that time, course requirements will be reviewed and students will receive an AP contract which must be signed by the student and parent.

A student is not permitted to withdraw from an AP course after the summer drop date has passed.

### Requirements for Graduation

A student must earn 26 credits to graduate. These must include:

4 Religion	3 Science
4 English	½ Health
3 Social Studies	½ Physical Education
3 ½ or 4 Mathematics*	1 Visual/Performing Arts
	6 or 6 ½ Electives**

\*Per state requirements, students must take one mathematics course each year of high school. The sequence must include Algebra I, Algebra II, and Geometry.

\*\*Dependent upon individual student's math sequence



## Pre-College Curriculum Requirements

The following are the pre-college curriculum requirements for first-time freshmen under age 21 who enroll in a four-year degree program at a Kentucky public university. Please note that these are the minimum requirements and some colleges and/or program majors may have additional requirements beyond the minimum given below.

- 4 credits **English/Language Arts** (English I, II, III, IV [or AP English])
- 3 credits **Mathematics** (Algebra I, Algebra II, Geometry)\*
- 3 credits **Science** (to include life science, physical science, and earth/space science)\*\*
- 3 credits **Social Studies** (from U.S. History, Economics, Government, World Geography and World Civilizations)
- 1 credit **History and Appreciation of Visual, Performing Arts** (History and appreciation of visual and performing arts or another arts course that incorporates such content)
- ½ credit **Health**
- ½ credit **Physical Education**
- 2 credits **World Languages** (or demonstrated competency)
- 5 credits **Elective Courses** (recommended strongly: 1 or more courses that develop computer literacy)

\*Per state requirements, students must take one mathematics course each year of high school. The sequence must include Algebra I, Algebra II, and Geometry.

\*\*Must include at least one lab course

## Grading Scale Information

### **WEIGHTING SYSTEM**

Numeric Value	Course Categories and Scales			
	<u>CPII/CPIII</u>	<u>CPI</u>	<u>Honors</u>	<u>Advanced Placement</u>
99	4.0	4.2	4.5	5.0
98	4.0	4.2	4.5	5.0
97	4.0	4.2	4.5	5.0
96	3.9	4.1	4.4	4.9
95	3.8	4.0	4.3	4.8
94	3.7	3.9	4.2	4.7
93	3.6	3.8	4.1	4.6
92	3.5	3.7	4.0	4.5
91	3.4	3.6	3.9	4.4
90	3.3	3.5	3.8	4.3
89	3.2	3.4	3.7	4.2
88	3.1	3.3	3.6	4.1
87	3.0	3.2	3.5	4.0
86	2.9	3.1	3.4	3.9
85	2.8	3.0	3.3	3.8
84	2.7	2.9	3.2	3.7
83	2.6	2.8	3.1	3.6
82	2.5	2.7	3.0	3.5
81	2.4	2.6	2.9	3.4
80	2.3	2.5	2.8	3.3
79	2.2	2.4	2.7	3.2
78	2.1	2.3	2.6	3.1
77	2.0	2.2	2.5	3.0
76	1.9	2.1	2.4	2.9
75	1.7	1.9	2.2	2.7
74	1.6	1.8	2.1	2.6
73	1.5	1.7	2.0	2.5
72	1.3	1.5	1.8	2.3
71	1.2	1.4	1.7	2.2
70	1.1	1.3	1.6	2.1

In calculating weighted grades on a 4.0 scale, the grade point average a student receives for an honors course will receive an additional .50 before the GPA value is assigned. The grade point average a student receives for an Advanced Placement course will receive an additional 1.0 before the GPA value is assigned.

**GRADING SYSTEM:** Numerical grades are awarded in all courses with the exception of physical education and Academic Support, which are pass/fail. The standards are as follows:

100 - 99 = A+	90 - 87 = B	77 - 75 = C-
98 - 95 = A	86 - 85 = B-	74 = D+
94 - 93 = A-	84 - 83 = C+	73 - 71 = D
92 - 91 = B+	82 - 78 = C	70 = D-
		69 or Below = Failing

## COURSE OFFERINGS

The core program required of each student and the electives offered for the various grade levels are listed below. It is recommended that a student become familiar with all the courses listed in the curriculum guide and plan his course of study based on his area of interest after high school. Also, he should familiarize himself with college requirements in the field of his choice.

### FRESHMEN

(The normal course sequence for freshmen is seven credits.)

#### Required Courses

<u>Course</u>	<u>Credit</u>
English	
English I CPII .....	1
English I CPI .....	1
English I H .....	1
Mathematics	
Algebra I CPIII .....	1
Algebra I CPII .....	1
Algebra I CPI .....	1
Algebra I H .....	1
Algebra II H .....	1
Religion	
Religion I .....	1
Science	
Biology I CPII .....	1
Biology I CPI .....	1
Biology I H.....	1
Science	
Health (Sem.).....	½
Physical Education (Sem.) .....	½
Technology (non-STEM)	
Technology Applications and Communications (Sem.).....	½
Social Studies	
World Geography (Sem.).....	½

#### Electives

<u>Course</u>	<u>Credits</u>
Academic Support Program .....	½
Business	
Career Exploration (Sem.) .....	½
Personal Finance I (Sem.) .....	½
Personal Finance II (Sem.) .....	½
Fine Arts	
Art I .....	1
Band .....	½
World Languages	
French I (Ind. Study) .....	1
German I .....	1
Latin I .....	1
Spanish I CPI.....	1
STEM	
Introduction to Engineering Design (IED).....	1
Study Hall (Full Year) .....	0
Study Hall (Sem.) .....	0

## SOPHOMORES

(The normal course sequence for sophomores is seven credits.)

### Required Courses

<u>Course</u>	<u>Credits</u>
English	
English II CPII.....	1
English II CPI.....	1
English II H .....	1
Mathematics	
Algebra I CPII.....	1
Algebra I CPI.....	1
Algebra II CPIII.....	1
Algebra II CPII.....	1
Algebra II CPI.....	1
Algebra II H .....	1
Geometry CPI.....	1
Geometry H .....	1
Religion	
Religion II .....	1
Science	
Chemistry CPII.....	1
Chemistry CPI.....	1
Chemistry H .....	1
Social Studies	
World Civilizations .....	1
AP World History .....	1

### Electives

<u>Course</u>	<u>Credits</u>
Academic Support Program.....	½
Business	
Accounting I 101/102 .....	1
Career Exploration.....	½
Personal Finance I (Sem.) .....	½
Personal Finance II (Sem.) .....	½
Fine Arts	
Advanced Band .....	½
Art I .....	1
Art II .....	1
Band .....	½
Chamber Choir 110/111 .....	1
Drama I (Sem.) .....	½
Drama II (Sem.) .....	½
Select Choir 101/102 .....	1
STEM	
Introduction to Engineering Design .....	1
Principles of Engineering .....	1
Technology (non-STEM)	
Animation I (Sem.) .....	½
Animation II (Sem.) .....	½
CAD & 3-D Modeling I (Sem.) .....	½
CAD & 3-D Modeling II (Sem.) .....	½
Graphic Design I (Sem.) .....	½
Graphic Design II (Sem.) .....	½
Introduction to Comp. Science (Sem.).....	½
Introduction to Programming (Sem.) .....	½
World Languages	
French I or II (Ind. Study) .....	1
German I or II .....	1
Latin I or II .....	1
Spanish I CPII.....	1
Spanish I CPI.....	1
Spanish II CPII.....	1
Spanish II CPI.....	1
Study Hall (Full Year)/(Sem.) .....	0



## JUNIORS

(The normal course sequence for juniors is seven credits.)

### Required Courses

<u>Course</u>	<u>Credits</u>	<u>Course</u>	<u>Credits</u>
English		Religion	
English III CPII .....	1	Religion III 101(1 <sup>st</sup> Sem.) .....	½
English III CPI .....	1	Religion III 102 (2 <sup>nd</sup> Sem.) .....	½
English III H .....	1	Social Studies	
English III AP .....	1	U.S. History .....	1
Math		U.S. History AP .....	1
Applied Geometry .....	1		
Geometry CPII .....	1		
Geometry CPI .....	1		
Geometry H .....	1		
Pre-Calculus H .....	1		

### Electives

<u>Course</u>	<u>Credits</u>	<u>Course</u>	<u>Credits</u>
Academic Support .....	½	Physics 101/102 ....	1
Business		Physics 110/111 AP .....	1
Accounting I 101/102 .....	1	STEM	
Economics 101/102 .....	1	Aerospace Engineering .....	1
Economics 110/111 AP .....	1	Principles of Engineering .....	1
Personal Finance II .....	½	Engineering Design & Development .....	1
English		Social Studies	
Creative Writing (Sem.) .....	½	American Government (Sem.) .....	½
Speech (Sem.) .....	½	Economics 101/102 .....	1
Fine Arts		Economics 110/111 AP .....	1
Advanced Band .....	½	Psychology (Sem.) .....	½
Art I .....	1	Psychology 110/111 AP .....	1
Art II .....	1	Sociology (Sem.) .....	½
Art III 110/111 H .....	1	Technology (non-STEM)	
Art IV 110/111 H .....	1	Animation I (Sem.) .....	½
Art of the Film (Sem.) .....	½	Animation II (Sem.) .....	½
Band .....	½	CAD & 3-D Modeling I (Sem.) .....	½
Chamber Choir 110/111 .....	1	CAD & 3-D Modeling II (Sem.) .....	½
Drama I (Sem.) .....	½	Computer Programming 110/111 AP .....	1
Drama II (Sem.) .....	½	Graphic Design I (Sem.) .....	½
Music Appreciation (Sem.) .....	½	Graphic Design II (Sem.) .....	½
Select Choir 101/102 .....	1	Graphic Design III (Sem.) .....	½
Specialized Art 101/102 .....	1	Introduction to Computer Science (Sem.) .....	½
General		Introduction to Programming (Sem.) .....	½
Introduction to Classical Philosophy (Sem.) .....	½	World Languages	
Junior Vocational Career/Technical School .....	3	French I, II, or III (Ind. Study) .....	1
Mathematics		German I or II .....	1
Probability & Statistics (Sem.) .....	½	German III 110/111H .....	1
Statistics AP (Sem.) .....	½	Latin I or II .....	1
Mathematical Modeling (Sem.) .....	½	Latin III (Ind. Study) .....	1
Science		Spanish I CPII .....	1
Anatomy & Physiology 101/102 .....	1	Spanish I CPI .....	1
Biology II 101/102 .....	1	Spanish II CPII .....	1
Biology 110/111 AP (Ind. Study) .....	1	Spanish II CPI .....	1
Chemistry II 110/111 AP .....	1	Spanish III H .....	1
Earth/Space Science 101/102 .....	1	Study Hall (Full Year)/(Sem.) .....	0

**SENIORS**

(The normal course sequence for seniors is seven credits.)

**Required Courses**

<u>Course</u>	<u>Credits</u>	<u>Course</u>	<u>Credits</u>
English		Mathematics	
English IV 101/102 CPII .....	1	Algebra II CPII .....	1
English IV 101/102 CPI .....	1	Algebra II CPI .....	1
English IV 110/111 H .....	1	Algebra III 101/102 .....	1
English IV 110/111 AP .....	1	Pre-Calculus 101/102 CPII .....	1
		Pre-Calculus 101/102 CPI .....	1
		Calculus 110/111 AP .....	1
		Religion	
		Religion IV 101 (1 <sup>st</sup> Sem.) .....	½
		Religion IV 102 (2 <sup>nd</sup> Sem.) .....	½

**Electives**

<u>Course</u>	<u>Credits</u>	<u>Course</u>	<u>Credits</u>
Academic Support.....	½	STEM	
Business		Aerospace Engineering .....	1
Accounting I 101/102 .....	1	Principles of Engineering .....	1
Economics 101/102 .....	1	Engineering Design & Development .....	1
Economics 110/111 AP.....	1	Social Studies	
English		American Government (Sem.).....	½
Creative Writing (Sem.) .....	½	Current Issues (Sem.) .....	½
Journalism I or II (Sem.) .....	½	Economics 101/102 .....	1
Speech (Sem.) .....	½	Economics 110/111 AP.....	1
Fine Arts		European History 110/111 AP.....	1
Advanced Band .....	½	Psychology (Sem.) .....	½
Art I.....	1	Psychology 110/111 AP .....	1
Art II.....	1	Sociology (Sem.) .....	½
Art III 110/111 H.....	1	Technology (non-STEM)	
Art IV 110/111H .....	1	Animation I (Sem.).....	½
Art of the Film (Sem.) .....	½	Animation II (Sem.).....	½
Band .....	½	CAD & 3-D Modeling I (Sem.) .....	½
Chamber Choir 110/111.....	1	CAD & 3-D Modeling II (Sem.) .....	½
Drama I (Sem.).....	½	Computer Programming AP 110/111.....	1
Drama II (Sem.).....	½	Graphic Design I (Sem.) .....	½
Music Appreciation (Sem.) .....	½	Graphic Design II (Sem.) .....	½
Specialized Art 101/102 .....	1	Graphic Design III (Sem.) .....	½
General		Introduction to Computer Science (Sem.).....	½
Introduction to Classical Philosophy (Sem.) .....	½	Introduction to Programming (Sem.) .....	½
Senior Vocational Career/Technical School .....	3	World Languages	
Mathematics		French II or III (Ind. Study) .....	1
Mathematical Modeling (Sem.) .....	½	German II.....	1
Probability & Statistics (Sem.) .....	½	German III 110/111H.....	1
Statistics AP (Sem.) .....	½	German IV 110/111H .....	1
Science		Latin II.....	1
Anatomy & Physiology 101/102.....	1	Latin III (Ind. Study) .....	1
Biology II 101/102 .....	1	Spanish II CPII .....	1
Biology 110/111 AP (Ind. Study) .....	1	Spanish II CPI .....	1
Chemistry II 110/111 AP.....	1	Spanish III H.....	1
Earth/Space Science 101/102 .....	1	Spanish IV 110/111H.....	1
Physics 101/102 .....	1	Study Hall (Full Year)/(Sem.) .....	0
Physics 110/111AP .....	1		

# Curriculum Overview

## Academic Support Program

9<sup>th</sup> Grade-Academic Support  
10<sup>th</sup> Grade-Academic Support  
11<sup>th</sup> Grade-Academic Support  
12<sup>th</sup> Grade-Academic Support

## Business

Accounting I 101/102  
Career Exploration (sem.)  
Economics 101/102  
Economics 110/111 AP +  
Personal Finance I (sem.)  
Personal Finance II (sem.)

## English

Creative Writing (sem.)  
English I CPII  
English I CPI  
English I H  
English II CPII  
English II CPI  
English II H  
English III CPII  
English III CPI  
English III H  
English III AP  
English IV 101/102 CPII  
English IV 101/102 CPI  
English IV 110/111 H  
English IV 110/111 AP  
Journalism I (sem.)  
Journalism II (sem.)  
Speech (sem.)

## Fine Arts

Advanced Band  
Art I  
Art II  
Art III 110/111 H  
Art IV 110/111 H  
Art of the Film (sem.)  
Band  
Chamber Choir 110/111  
Drama I (sem.)  
Drama II (sem.)  
Music Appreciation (sem.)  
Select Choir 101/102  
Specialized Art 101/102

## General

Intro to Classical Philosophy  
Vocational/Technical School  
    Air Conditioning Tech.  
    Automotive Tech.  
    Collision Repair Tech.  
    Computer & Information Tech  
    Diesel Tech.

## General (cont.)

Vocational/Technical School  
    Diesel Tech.  
    Electrical Tech.  
    Energy Tech.  
    Fire/Rescue Science Tech.  
    Health Information Tech.  
    Industrial Maintenance Tech  
    Manufacturing Engineer. Tech  
    Plumbing Tech.  
    Welding Tech.

## Mathematics

Algebra I CPIII  
Algebra I CPII  
Algebra I CPI  
Algebra I H  
Algebra I H (8<sup>th</sup> grade)  
Algebra II CPIII  
Algebra II CPII  
Algebra II CPI  
Algebra II H  
Algebra III 101/102  
Applied Geometry  
Calculus 110/111 AP  
Geometry CPII  
Geometry CPI  
Geometry H  
Mathematical Modeling  
Pre-Calculus 101/102 CPII  
Pre-Calculus 101/102 CPI  
Pre-Calculus H  
Probability & Statistics (sem.)  
Statistics AP (sem.)

## Religion

Religion I  
Religion II  
Religion III 101/102  
Religion IV 101/102+

## Science

Anatomy & Physiology 101/102  
Biology I CPII  
Biology I CPI  
Biology H  
Biology II 101/102  
Biology 110/111 AP-Independent Study  
Chemistry CPII  
Chemistry CPI  
Chemistry H  
Chemistry II 110/111 AP  
Earth/Space Science 101/102  
Health (sem.)  
Physical Education (sem.)  
Physics 101/102  
Physics 110/111 AP

## STEM

Aerospace Engineering  
Engineering Design and Development +  
Introduction to Engineering Design  
Principles of Engineering

## Social Studies

American Government (sem.)  
Current Issues (sem.)  
Economics 101/102  
Economics 110/111 AP +  
European History 110/111 AP  
Psychology (sem.)  
Psychology 110/111 AP  
Sociology (sem.)  
U.S. History  
U.S. History 110/111 AP  
World Civilizations  
World Geography (sem.)  
World History AP

## Technology (non-STEM)

Animation I (sem.) +  
Animation II (sem.) +  
CAD & 3-D Modeling I (sem.) +  
CAD & 3-D Modeling II (sem.) +  
Computer Programming 110/111 AP  
Graphic Design I (sem.)  
Graphic Design II (sem.)  
Graphic Design III (sem.)  
Introduction to Computer Science (sem.)  
Introduction to Programming (sem.)  
Technology Applications & Communications (sem.)

## World Languages

German I  
German II  
German III 110/111 H  
German IV 110/111 H  
Latin I  
Latin II  
Latin III-Independent Study  
French I- Independent Study  
French II- Independent Study  
French III- Independent Study  
Spanish I CPII  
Spanish I CPI  
Spanish II CPII  
Spanish II CPI  
Spanish III H  
Spanish IV 110/111 H

\*101/102 and 110/111 are semester courses that must be taken together to receive credit.

\*Classes with no differentiating designation are academic level courses (i.e. Art I, Latin I, etc.

+ Proposed new and revised courses for 2017-18



# Academic Support Program

## Course # 90007

The **Academic Support Class** allows a student to succeed within our fully mainstreamed curriculum with tutorial support.

### ADMISSION REQUIREMENTS

#### Academic Support Class

Students will be recommended for the academic support class based on standardized testing and academic performance history. This recommendation will be provided by the Guidance Office after consultation with the interdisciplinary team.

### ROLE OF THE ACADEMIC SUPPORT PROGRAM INSTRUCTOR

The instructor will be the liaison to the rest of the professional staff. As the student's advocate, the instructor will work towards acceptance of varied testing procedures, maintain a professional empathy with the student, uphold the classroom teachers' expectations, and improve the organizational and coping skills of each student.

#### Academic Support Class Structure

The Academic Support Program's class enrollment is limited. Each class will consist of a small number of students so that the instructor can provide effective support for each individual. A student's class schedule will determine what period he will be assigned to the class. Each student will meet at that time each day for the entire academic year.

#### Academic Support Class Grade

The Academic Support Program is a full-year course. Students receive one-half academic credit for successful completion of this course.

#### Academic Support Class Goals

The academic support class will:

- Provide regular communication between teachers, parents, and students
- Enable each student to assume responsibility for his own learning
- Develop skills that allow the student to learn the material presented in his courses

# BUSINESS

## **ACCOUNTING I 101/102 (10, 11, 12)**

**Course # 12127/12137**

Accounting I helps students acquire the fundamentals of accounting, theory, terminology, and skills. The course includes the study of different journals, financial statements, ledgers, taxes, and accruals. It is expected that the student complete the workbook corresponding with each chapter. A workbook must be purchased for this class.

**Prerequisite: None**

## **CAREER EXPLORATION (9, 10)**

**Course # 14227**

### **semester course**

Students will explore career opportunities commensurate with their interests and abilities. This course offers opportunities to refine the application and interview process and also will focus on writing quality resumes. Other activities will include discussing work ethics, job attitudes and responsibilities necessary for successful employment, as well as preparing a research project on the student's career choice. Students are encouraged to learn and explore possible careers firsthand from the many guest speakers that are invited in each semester.

**Prerequisite: None**

## **ECONOMICS 101/102 (11, 12)**

**Course # 13127/13137**

A "hands on" method of teaching how to organize a business, sell a product, bank etc. through a model student company. Topics will include how to manage a business, the importance of advertising, the stock market and trade.

**Prerequisite: None**

## **ECONOMICS 110/111 AP (11, 12)**

**Course # 13127/13137**

This AP program offers two courses in economics: AP Macroeconomics and AP Microeconomics. Each course corresponds to one semester of a typical college course in economics. AP Macroeconomics focuses on principles that apply to an economic system as a whole. AP Microeconomics focuses on principles of economics that apply to the functions of individual decision-makers, both consumers and producers, within the economic system.

**Prerequisite: None**

## **PERSONAL FINANCE I (9,10)**

**Course # 14127**

### **semester course**

Students will learn about planning for their financial futures by focusing on Financial Security as well as Money Management. Activities will include participating in the Stock Market Game, learning about stocks, bonds, and mutual funds, calculating net worth, planning monthly budgets, learning about the components of our tax system and preparing tax forms. A workbook must be purchased from the school bookstore for this class. The Dave Ramsey *Foundations in Personal Finance* curriculum will be used as a supplement.

**Prerequisite: None**

## **PERSONAL FINANCE II (9, 10, 11)**

**Course # 14137**

### **semester course**

Students will continue to learn about planning for their financial futures by focusing on Credit and Risk Management as well as Consumer Rights and Responsibilities. Activities will include participating in the Stock Market Game, learning about the risks of credit, retirement and estate planning, role of consumers and consumer protections. The Dave Ramsey *Foundations in Personal Finance* curriculum will be used as a supplement and is provided to the students.

**Prerequisite: Personal Finance I**

# ENGLISH

## **CREATIVE WRITING (11, 12)**

**Course # 25117**

### **semester course**

This elective semester course is offered to upperclassmen as an opportunity to develop their creativity and writing skills. Students will be exposed to the advanced elements of style by reading examples of various short fiction and non-fiction. Various short and long forms of fiction and informal essay writing will be assigned. Rigorous attention to the improvement of skills is the primary focus. This course will require extensive out of class work.

**Prerequisite: None**

## **ENGLISH I CPII (9)**

**Course # 21117**

The English I curriculum provides a survey of various literature forms as well as practice in the fundamentals of reading, writing, speaking and listening. English I CPII is designed for students who have a clear need to develop better fundamental language skills. Individual reading comprehension and writing skills will be emphasized in conjunction with speaking and listening skills. Summer reading is required.

**Prerequisite: Placement is determined from the High School Placement Test (HSPT), grade school recommendations and other standardized test scores**

## **ENGLISH I CPI (9)**

**Course # 21227**

The English I curriculum provides a survey of various literature forms as well as practice in the fundamentals of reading, writing, speaking and listening. Emphasizing the writing process through workshops and grammar review, the student will develop proficiency in well-organized, thoughtful writing and speaking. Summer reading is required.

**Prerequisite: Placement is determined from the High School Placement Test (HSPT), grade school recommendations and other standardized test scores**

## **ENGLISH I HONORS (9)**

**Course # 21337**

Students will read widely and reflect on their reading through extensive discussion, writing and re-writing. In addition, a strong foundation in grammar and syntax is cultivated. The student will assume considerable responsibility for the amount of reading and writing he will undertake in the course. The teacher will complement the efforts of the students by guiding them in their choices of reading, and by providing assignments which facilitate critical thinking skills and develop the ability to analyze the elements of literature. Summer reading and writing is required.

**Prerequisite: Placement is determined from the High School Placement Test (HSPT), grade school recommendations and other standardized test scores**

## **ENGLISH II CPII (10)**

**Course # 22117**

This course includes a survey of world literature, a continuation of the development of more effective language usage, reading comprehension, writing and listening skills. Study skills, writing mechanics and various genres of literature will continue to be addressed in this course. Summer reading is required.

**Prerequisite: Recommendation of English I instructor**

## **ENGLISH II CPI (10)**

**Course # 22227**

This course includes a survey of world literature, a study of grammar usage and intensive focus on improving writing skills. Literature study will include the genres of fiction, non-fiction, drama and poetry. The focus on grammar involves review as needed. Included in the writing curriculum are both critical and creative works, generally related to the literature. Summer reading is required.

**Prerequisite: Recommendation of English I instructor**



**ENGLISH II HONORS (10)****Course #22337**

This course includes a survey of world literature as well as increasing emphasis on higher level writing skills and grammar usage. Literature and writing are the focus of the curriculum, with most writing derived from the study of the literature. Some creative writing is completed; however, emphasis is on expository, comparative, analytical, and critical analysis of novels, short stories and poetry from world literature. Solid grammar skills are reviewed as needed. The course is writing intensive and all works must be typed. Summer reading and writing required.

**Prerequisite: Recommendation of English I instructor**

**ENGLISH III CPII (11)****Course # 23118**

This combined junior/senior course is designed to aid a student who continues to display a clearly defined need for improved skills in correct language usage, reading comprehension, and writing. Study skills, information gathering and processing, the writing process, and reading/thinking skills will continue to be addressed. Excerpts from American and British literature appropriate to skill levels will be studied in alternating years to broaden the student's perspective of literature. Summer reading is required.

**Prerequisite: Recommendation of English II instructor**

**ENGLISH III CPI (11)****Course # 23227**

This course focuses on the literature of our American heritage as well as on more advanced composition skills. Essays, short stories, excerpts from speeches, and drama are all used to develop a broader perspective of this literature. The composition element of the course emphasizes development of skills necessary for successful college writing. Extensive writing of essays as well as the research paper follows a thorough review of basic skills. A vocabulary program supplements the work. Summer reading and writing are required.

**Prerequisite: Recommendation of English II instructor**

**ENGLISH III HONORS (11)****Course # 23237**

In addition to the requirements for the regular college preparatory classes, the students will demonstrate a more advanced degree of critical thinking skills in their analysis, writing, and speaking. The Honors research paper will require more synthesis and application rather than mere reporting of facts. Students will continue to develop their critical reading skills through a dialogical analysis of each author's themes, style, and contributions to American literature, and through various outside reading materials, to include literary criticism. However, unlike the college preparatory class, the Honors class will involve a closer reading of the material studied, and analytic questioning of materials based upon social, cultural, and political influences. Students will build on their composition skills by writing a variety of essays. Further development of communication skills will be achieved through vocabulary study, the writing of an argumentative research paper, a general grammar review, as well as special projects to foster a creative response to American literature. Summer reading is required.

**Prerequisite: Recommendation of English II instructor**

**ENGLISH III, ADVANCED PLACEMENT (11)  
(English Language and Composition)****Course # 23337**

This course, available only during the junior year, focuses on advanced language and writing skills and is geared towards the Advanced Placement (AP) Exam offered by the College Board for potential college credit in the spring of each year. Students are taught to become skilled analytical readers of various styles of prose and poetry. Extensive practice and guidance in writing critical/analytical essays prepares the students not only for the AP exam but also for the more challenging levels of college prose writing including the research paper. The literature component parallels that of the college prep course offering which surveys our American literary heritage. An extensive vocabulary program supplements the course work. Summer reading and writing are required.

**Prerequisite: Recommendation of English II instructor**

**ENGLISH IV 101/102 CPII (12)****Course # 24101/24102**

This combined junior/senior course is designed to aid a student who continues to display a clearly defined need for improved skills in correct language usage, reading comprehension, and writing. Study skills, information gathering and processing, writing process, and reading/thinking skills will continue to be addressed. Excerpts from American and British literature appropriate to skill levels will be studied in alternating years to broaden the student's perspective of literature. Summer reading is required.

**Prerequisite: Recommendation of English III instructor**



**ENGLISH IV 101/102 CPI (12)****Course # 24201/24202**

This course involves a survey of British literature and its history, as well as mastery of the formal writing skills needed by the college bound student including exposition, comparison/contrast, persuasion and personal essays from a critical perspective relative to the literature studied. This writing intensive course provides students with opportunities for personal expression as well as increased exposure to classic literature. A research paper is required to refine the student's ability to access information available through new technologies. Summer reading and writing is required.

**Prerequisite: Recommendation of English III instructor**

**ENGLISH IV 110/111 HONORS (12)****Course # 24401/24402**

English IV Honors covers the four modes of discourse, with an emphasis on critical analysis of British literature. The literary genres are studied chronologically to develop skills in reading, writing, listening, speaking, and critical thinking. This course follows a chronological study of literary genres. Students will explore British literature more widely and critically, and the course will include more challenging texts. In order to succeed in the course, students must demonstrate writing skills that are stronger than those typical to the English IV CPI level. Summer reading and writing is required.

**Prerequisite: Recommendation of English III instructor**

**ENGLISH IV 110/111 ADVANCED PLACEMENT (12)****Course # 24301/24302****(English Literature and Composition)**

This course, available only in the senior year, focuses on advanced literature and writing skills, and is geared towards the AP Literature and Composition Exam offered by the College Board for potential college credit in the spring of each year. Writing emphasis is on critical analysis of a wide variety of literary genres in British Literature. Extensive writing practice involving such analysis prepares the students not only for the AP exam but also for the more challenging levels of college prose writing. A chronology of important works of British fiction, non-fiction and poetry exposes students to a broader perspective of classic literary forms and thought. An extensive vocabulary program supplements the course. Mastery of formal writing skills is critical for success on the challenging AP exam. Summer reading and writing are required.

**Prerequisite: Recommendation of English III instructor**

**JOURNALISM I (12)****Course # 23427****semester course**

Students in this course are responsible for producing the school newspaper, yearbook, and literary magazine publications. Students will be introduced to the characteristics of good journalistic expression as well as to the mechanics required to produce major publications. Students will write, revise, edit, and proofread editorials, features, news articles, sports articles and magazine articles. Other areas of discussion include the historical and cultural impact of journalism in our society. Students will also learn the design of layouts and photography/graphics, and will be introduced to the field of advertising.

**Prerequisite: Recommendation of Journalism instructor/Review of English grades and discipline record**

**JOURNALISM II (12)****Course # 24427****semester course**

Students will continue to refine skills in journalistic writing through the school newspaper, the yearbook and the literary magazine. A student in this course will be required to take on the role of editor in one of the three publications. If there are multiple students, more than the required publications, the job of editors will be divided among them. Also, students will be required to do in depth work with photography: outside classes, darkroom facilities upkeep, etc. Time will be spent after the school year is completed in order to finish the yearbook.

**Prerequisite: Journalism I and recommendation of Journalism I instructor/Review of English grades and discipline record**

**SPEECH (11, 12)****Course # 25227****semester course**

This elective is offered to upperclassmen as an opportunity to develop their communications awareness and public speaking skills. Students will be taught the basics of good speech techniques and strategies for overcoming nervousness. Instruction will also be given in the use of multi-media technology in presentations. Students will be required to give several speeches of various lengths and types such as informative, persuasive, impromptu, debate/rebuttal and humorous.

**Prerequisite: None**

# FINE ARTS

## **ADVANCED BAND (10, 11, 12)**

**Course # 88897**

This ensemble is the primary instrumental performing group. Students are expected to play at several concerts throughout the year as well as at assemblies, liturgies, sports events and other school functions. Some morning, afternoon and evening rehearsals and/or performances are required. Students may provide their own instruments or a rental arrangement is possible. Repertoire of a more advanced level than Band is taught.

**Prerequisites: Successful completion of Band and audition**

## **ART I (9, 10, 11, 12)**

**Course # 31127**

Art I is an art appreciation course open to all students regardless of ability or previous training. The nature of the course is to introduce the foundations of art and to allow each student to gain an understanding of the creative process.

1 <sup>st</sup> Quarter:	Exploration of composition and design with emphasis on craftsmanship.
2 <sup>nd</sup> Quarter:	Introduction to drawing, contour line, and the illusion of form.
3 <sup>rd</sup> Quarter:	Introduction to color, monochromatic.
4 <sup>th</sup> Quarter:	Introduction to the creative process, communication, symbolism, and the manipulation of objects.

**Prerequisite: None**

## **ART II (10, 11, 12)**

**Course # 32127**

Art II builds upon the foundations and principles of Art I with a greater emphasis on the individuality of each young man.

1 <sup>st</sup> Quarter	– Advanced composition and design, understanding of shape and line.
2 <sup>nd</sup> Quarter	– Advanced drawing, charcoal, cross sharing, pointillism.
3 <sup>rd</sup> Quarter	– Advanced color theory, primary, secondary, tertiary colors.
4 <sup>th</sup> Quarter	– Advanced color theory through the story of impressionism.

**Prerequisite: Recommendation of Art I instructor**

## **ART III 110/111 HONORS (11, 12)**

**Course # 33127/33137**

## **ART IV 110/111 HONORS (11, 12)**

**Course # 34127/34137**

Art III and IV Honors is only open to the most serious art student. The main goal of this course is portfolio development.

Art III - 1 <sup>st</sup> Quarter	– Black and white with emphasis on individuality
2 <sup>nd</sup> & 3 <sup>rd</sup> Quarter	– Color with emphasis on individuality
4 <sup>th</sup> Quarter	– Individual requirements based upon student and portfolio needs

Art IV – 1 <sup>st</sup> Quarter	– Conceptual art
2 <sup>nd</sup> & 3 <sup>rd</sup> Quarter	– Acrylic painting
4 <sup>th</sup> Quarter	– Individual instruction/student proposal 100 hours of work

Approval shall be based upon:

1. Discipline - meeting deadlines, using class time well
2. Growth both technically and conceptually

Any Art I sophomore or junior student who shows outstanding talent and discipline may be considered for Art 3. A 90% average and teacher's approval is required.

Each Art III & IV student is required to spend 50+ hours over the summer on 2-3 pieces or artwork due at the beginning of the next school year.

**Prerequisite: Recommendation of Art II/III instructor**



**ART OF THE FILM (11, 12)****Course # 37227****semester course**

This course studies the rudiments of film making, as well as the artistic effects of film. During the semester, movies representing all genres, will be viewed and evaluated. The students will also examine excerpts from an additional thirty films. Note that the class includes a fair amount of homework/essay writing.

**Prerequisite: None****BAND (9, 10, 11, 12)****Course # 88887**

This course teaches fundamentals of standard band instrumental music. The basics of playing and reading are explored. Students may provide their own instruments or a rental arrangement is possible. Those wishing to learn a brass, woodwind or percussion instrument with no prior experience are welcome. Class meets before school on dates to be determined.

**Prerequisite: None****CHAMBER CHOIR 110/111 (10, 11, 12)****Course # 38227/38237**

Singers will be challenged in advanced traditional and modern TTBB music, with many performance opportunities beyond those of Chorus.

**Prerequisite: Audition and recommendation of Chamber Choir instructor/Review of discipline record****DRAMA I (10, 11, 12)****Course # 25337****semester course**

This elective semester course is offered to upperclassmen as an opportunity to develop acting skills. The history of drama (especially American Theater) will be studied along with the fundamental techniques of acting. Students will be expected to memorize lines and act in skits of various lengths. Duo acting, solo acting, improvisation, story-telling, and dramatic interpretation of scenes using limited movement and several characters will be expected.

**Prerequisite: None****DRAMA II (10, 11, 12)****Course # 25347****semester course**

This elective semester course is offered to upperclassmen to continue their work in Drama I. Students will review some of the components learned in Drama I and then closely study one chosen play as a class, working on elements of the play. Focus will be on set design, props, costume, lighting, sound, and makeup. Students will be asked to participate in viewing/constructing/analyzing all of these elements. Outside work and viewing of plays is expected.

**Prerequisite: Drama I****MUSIC APPRECIATION (11, 12)****Course # 35227****semester course**

This course is a survey of various types of music, beginning with the Renaissance, moving through the Baroque, Classical, Romantic, Expressionist, Impressionist, and Minimalist periods. There will also be a brief examination of Jazz and current World Music.

**Prerequisite: None****SELECT CHOIR 101/102 (9, 10, 11)****Course # 38127/38137**

This ensemble performs vocal music of various styles and periods. Students will perform several concerts throughout the year as well as at assemblies, liturgies, sports events and other school functions. Some after school and evening rehearsals and/or performances are required. A knowledge and ability to read music is helpful but not required.

**Prerequisite: Audition and recommendation of Select Choir instructor/Review of discipline record****SPECIALIZED ART 101/102 (11, 12)****Course # 39227/39237**

Students must obtain an 88% in Art II or Art III H and must have the teacher's recommendation. The sole focus of Specialized Art is the creative process. Techniques normally not covered in academic or honors art courses will be explored. Sculpture, assemblage and printmaking will be emphasized.

**Prerequisite: Recommendation of Art II/III instructor**

# MATHEMATICS

## **ALGEBRA I CPIII (9)**

**Course # 51217**

Algebra I is a detailed study of algebra, and is designed for the mastery of algebraic skills in preparation for higher learning. Topics include the properties of real numbers, solving linear equations, graphing linear equations and functions, writing linear equations, solving and graphing linear inequalities, systems of linear equations and inequalities, exponents and exponential functions, quadratic equations and functions, polynomials and factoring, rational expressions and equations, and radicals. Pacing and depth of curriculum are commensurate with a CPIII level course.

**Prerequisite:** Placement is determined from the High School Placement Test (HSPT), grade school recommendations and other standardized testing in grade school

## **ALGEBRA I CPII (9)**

**Course # 51337**

Algebra I is a detailed study of algebra, and is designed for the mastery of algebraic skills in preparation for higher learning. Topics include the use of variable properties of rational, irrational and real numbers, solving equations, factoring, and graphics. Other topics include finding equations of lines given different initial conditions; the use of linear and quadratic equations and functions and solving linear inequalities. Pacing and depth of curriculum are commensurate with a CPII level course.

**Prerequisite:** Placement is determined from the High School Placement Test (HSPT), grade school recommendations and other standardized testing in grade school

## **ALGEBRA I CPI (9)**

**Course # 51327**

Algebra I is a detailed study of algebra, and is designed for the mastery of algebraic skills in preparation for higher learning. Topics include the use of variable properties of rational, irrational and real numbers, solving equations, factoring, and graphics. Other topics include finding equations of lines given different initial conditions, the use of linear and quadratic equations and functions and solving linear inequalities. Pacing and depth of curriculum are commensurate with a CPI level course.

**Prerequisite:** Placement is determined from the High School Placement Test (HSPT), grade school recommendations and other standardized testing in grade school

## **ALGEBRA I HONORS (9)**

**Course # 51437**

This course is designed to provide the student with the understanding of the structure and logical patterns in mathematics. Topics include evaluating algebraic expressions, solving simple equations, problem solving techniques, operations with polynomials, graphing linear and quadratic equations, inequalities, rational and irrational numbers, radical expressions, and algebraic proofs. Some exposure is also given to basic tenants in Geometry as they lend themselves to algebraic equations. Pacing and depth of curriculum are commensurate with an Honors level course.

**Prerequisite:** Placement is determined from the High School Placement Test (HSPT), grade school recommendations and other standardized testing in grade school.

## **ALGEBRA II CPIII (10)**

**Course # 52247**

This is a course designed for those students who have successfully completed a first course in algebra. Topics include methods for solving inequalities and linear, rational, and quadratic equations. Systems of equations and inequalities will also be studied. There is an emphasis on operations involving polynomials, radicals, exponents, and the use of correct algebraic techniques for simplifying rational expressions and complex fractions. Students will be introduced to the relationship between slope and graphs of lines, methods for finding equations of lines given different initial conditions, fundamental counting principles and determining the probability of events. Techniques in problem solving are emphasized. Pacing and depth of curriculum are commensurate with a CPIII level course.

**Prerequisite:** Algebra I and recommendation of Algebra I instructor



**ALGEBRA II CPII (10)****Course # 52237**

This is a course designed for those students who have successfully completed a first course in algebra. Topics include methods for solving inequalities and linear, rational, and quadratic equations. Systems of equations and inequalities will also be studied. There is an emphasis on operations involving polynomials, radicals, exponents, and the use of correct algebraic techniques for simplifying rational expressions and complex fractions. Students will learn the relationship between slope and graphs of lines, as well as methods for finding equations of lines given different initial conditions. Techniques in problem solving are emphasized. The student will also be introduced to fundamental counting principles and determining the probability of events along with the study of matrices. Pacing and depth of curriculum are commensurate with a CPII level course.

**Prerequisite:** Algebra I and recommendation of Algebra I instructor

**ALGEBRA II CPI (10)****Course # 52227**

This is a course designed for those students who have successfully completed a first course in algebra. Topics include methods for solving inequalities and linear, rational, and quadratic equations. Systems of equations and inequalities will also be studied. There is heavy emphasis on operations involving polynomials, radicals, exponents, and the use of correct algebraic techniques for simplifying rational expressions and complex fractions. Students will learn the relationship between slope and graphs of lines, as well as methods for finding equations of lines given different initial conditions. Techniques in problem solving are emphasized. Students become familiar with functions and the graphing and identifying of conic sections. The student will also be introduced to fundamental counting principles and determining the probability of events. Pacing and depth of curriculum are commensurate with a CPI level course.

**Prerequisite:** Algebra I and recommendation of Algebra I instructor

**ALGEBRA II HONORS (9, 10)****Course # 52337**

This course is for those students who want to further their education in the area of mathematics. This course is designed to prepare the student for future courses in honors Pre-Calculus and AP Calculus. Students that plan to continue their education in the areas of math, science or engineering are strongly encouraged to take this course if they are qualified. Pacing and depth of curriculum are commensurate with an Honors level course.

**Prerequisite:** 9<sup>th</sup> Grade - Placement based on the results of the Algebra II Honors Placement Test or successful completion of 8<sup>th</sup> Grade Algebra I Honors course and Algebra I Honors teacher recommendation

10<sup>th</sup> Grade - Algebra I Honors and recommendation of Algebra I Honors instructor

**ALGEBRA III 101/102 (12)****Course # 53237/53337**

Algebra III is designed for those seniors who need a fourth year math class and may not be prepared to take Pre-calculus CP II. The class will include a review of the most important topics covered in Algebra II: solving equations (both linear and those requiring factoring or the quadratic formula), a thorough investigation of slopes and equations of lines, techniques of factoring and the applications of factoring, review of radicals, and a more intensive study of functions, especially those quadratic in nature. In addition, the class will attempt to incorporate concepts and ideas that are often encountered on standardized testing, especially as related to the ACT. If time permits, the class may also introduce students to exponential functions and their inverses, the logarithmic functions, and a brief introduction to trigonometry.

**Prerequisite:** Algebra I, Algebra II and Geometry as well as recommendation of Geometry instructor

**CALCULUS 110/111 ADVANCED PLACEMENT (12)****Course # 54337/54347**

This is a college level course covering differentiation and integration of trigonometric, exponential, logarithmic, and algebraic functions. There is a large emphasis on graphing the functions listed above using properties of monotonicity and concavity in combination with relative extreme. Problem solving using max-min applications and methods of finding area and volumes of revolution are also emphasized. A graphing calculator is required for this course. Pacing and depth of curriculum are commensurate with an AP level course.

**Prerequisite:** Pre-Calculus Honors and recommendation of Pre-Calculus Honors instructor



**GEOMETRY CPIII (11)****Course # 53357**

This course is designed to help students better understand the nature of mathematical systems, to develop powers of spatial visualization, to improve deductive and inductive reasoning skills, and to work with formulas and properties related to various geometrical shapes. Topics include segments and angles, parallel and perpendicular lines, triangle relationships, congruent triangles, quadrilaterals, polygons and area, surface area and volume, right angles and trigonometry, and circles. Knowledge of basic algebra skills will be required and reinforced. Pacing and depth of curriculum are commensurate with a CPIII level course.

**Prerequisite:** Algebra I and recommendation of current math instructor

**GEOMETRY CPII (11)****Course # 53337**

This course is designed to help students better understand the nature of mathematical systems, to develop powers of spatial visualization, to improve deductive and inductive reasoning skills, and to work with formulas and properties related to various geometrical shapes. Knowledge of basic algebra skills will be required and reinforced. An emphasis will be placed on solving problems related to points, lines, polygons, and circles. Pacing and depth of curriculum are commensurate with a CPII level course.

**Prerequisite:** Algebra II CPII/CPI/Honors and recommendation of current math instructor

**GEOMETRY CPI (11)****Course # 53327**

This course is designed to help students better understand the nature of mathematical systems, to develop powers of spatial visualization, to improve deductive and inductive reasoning skills, and to appreciate the need for clarity and precision of language. Throughout the duration of the course, students will be required to write logical proofs that show both conceptual knowledge and logical reasoning skills. Pacing and depth of curriculum are commensurate with a CPI level course.

**Prerequisite:** Algebra II CPII/CPI/Honors and recommendation of current math instructor

**GEOMETRY HONORS (10,11)****Course # 54327**

This course is designed to help students develop mathematical reasoning skills and to communicate effectively using clear and precise mathematical language. Students will learn definitions, properties, and formulas of various geometric shapes. Although students will be required to use these definitions, properties, and formulas to solve problems, of particular emphasis will be the demonstration of an understanding of the underlying reasons behind these facts. Students will be required to write logical proofs and explanations that show both conceptual knowledge and logical reasoning skills. Higher level algebra skills will also be reinforced throughout the course. Pacing and depth of curriculum are commensurate with an Honors level course.

**Prerequisite:** Algebra I H or Algebra II CPII/CPI/Honors and recommendation of current math instructor

**MATHEMATICAL MODELING (12)****Course # 55117****semester course**

This course is designed to lead students into an understanding of the use of mathematics to model and to solve problems. This course is designed to encourage critical thinking and problem solving skills. It stresses the applicability of the math and its use in society for computer security, communications, antennae designs, division of assets, scheduling, GPS and the financial markets. Many topics will have a historical context, including an introduction to famous mathematicians and their contributions to our modern society. We will use an online text, with online homework and testing options. The text is available on any internet device. We will use the CCH iPads in the classroom for our text.

**Prerequisite:** Algebra I and II, Geometry

**PRE-CALCULUS 101/102 CPII (12)****Course # 54227/54237**

This is a course for those students who have completed Algebra II but did not display an adequate understanding of the concepts to qualify for Pre-Calculus CPI. The course will include a review of slopes and equations of lines, exponents and radicals, operations with rational expressions, and methods for solving all types of quadratic equations. The course will include an introduction to trigonometry and some simple counting principles related to probability. Pacing and depth of curriculum are commensurate with a CPII level course.

**Prerequisite:** Algebra I, Algebra II and Geometry as well as recommendation of Geometry instructor

**PRE-CALCULUS 101/102 CPI (12)****Course # 54127/54137**

Pre-Calculus is designed for the mastery of skills necessary for success in calculus. Topics include reviews of coordinate geometry, solving and graphing polynomial equations as well as polynomial inequalities and functions. Other topics include the study of logarithms, functions and their inverses, as well as a heavy emphasis on the study of trigonometric functions and their applications, polar coordinates, conic sections, and sequences and series. Pacing and depth of curriculum are commensurate with a CPI level course.

**Prerequisite:** Algebra I, Algebra II and Geometry and recommendation of Geometry instructor

**PRE-CALCULUS, HONORS (11)****Course # 54217**

This course is designed to prepare students for a course in calculus or other advanced level math and science courses. This course differs from the academic course in pace and depth in regards to the study of the material. Pacing and depth of curriculum are commensurate with an Honors level course.

**Prerequisite:** Algebra II Honors and/or Geometry H with recommendation of Algebra II H and/or Geometry H instructor(s)

**PROBABILITY AND STATISTICS (11, 12)****Course # 54447****semester course**

This elective course is intended to provide a fundamental background in statistical topics for any student who will be engaged in any of the following: math, natural sciences, education, social studies, psychology, or business. Topics include: probability, basis statistics, distributions, sampling, estimation, applications and projects. A statistical calculator is required.

**Prerequisite:** Student must have taken or be concurrently enrolled in Algebra II and must have recommendation of his current math instructor

**STATISTICS ADVANCED PLACEMENT (11, 12)****Course # 54557**

This elective AP course in statistics is to introduce students to the major concepts and tools for collecting, analyzing and drawing conclusions from data. Topics include: developing analytical and critical thinking skills, to describe data patterns and departures from patterns, plan and conduct studies, use probability and simulation to explore random phenomena, estimate population parameters, test hypotheses, and make statistical inferences. A statistical calculator (such as TI-83) is required. Pacing and depth of curriculum are commensurate with an AP level course.

**Prerequisite:** Algebra II, Probability and Statistics, and recommendation of current math instructor



## RELIGION

**The purchasing of supplemental materials is required for some of the classes in the Religion Department.**

### **RELIGION I (9)**

**Course # 61127**

#### **Core Course 1- Faith and Revelation: An Introduction to Scripture**

The purpose of this course is to give students a general knowledge and appreciation of the Sacred Scriptures. Through their study of the Bible they will come to encounter the living Word of God, Jesus Christ. In the course they will learn about the bible, authored by God through Inspiration, and its value to people throughout the world. If they have not been taught this earlier, they will learn how to read the Bible and will become familiar with the major sections of the Bible and the books included in each section. The students will pay particular attention to the Gospels, where they may grow to know and love Jesus Christ more personally.

#### **Core Course 2- Who is Christ?**

The purpose of this course is to introduce students to the mystery of Jesus Christ, the Living Word of God, and the Second Person of the Blessed Trinity. In this course students will understand that Jesus Christ is the ultimate Revelation to us from God. In learning about Who he is, the students will also learn who he calls them to be.

**Prerequisite: None**

### **RELIGION II (10)**

**Course # 62127**

#### **Core Course 3- The Mission of Christ**

The purpose of this course is to help students understand all that God has done for us through his Son, Jesus Christ. Through this core course of study, students will learn that for all eternity, God has planned for us to share eternal happiness with him, which is accomplished through the redemption Christ won for us. Students will learn that they share in this redemption only in and through Jesus Christ. They will also be introduced to what it means to be a disciple of Christ and what life as a disciple entails.

#### **Core Course 4- Christ and the Church**

The purpose of this course is to help the students to understand that in and through the Church they encounter the living Jesus Christ. They will be introduced to the fact that the Church was founded by Christ through the Apostles and is sustained by him through the Holy Spirit. The students will come to know that the Church is the living Body of Christ today. This Body has both divine and human elements. In this course, students will learn the life of the Church and the sacred nature of the Church.

**Prerequisite: Religion I**

### **RELIGION III 101/102 (11)**

**Course # 63127/63337**

#### **Core Course 5- Christ and the Sacraments**

The purpose of this course is to help students understand that they can encounter Christ today in a full and real way in and through the sacraments, and especially through the Eucharist. Students will examine each of the sacraments in detail so as to learn how they may encounter Christ throughout life.

#### **Core Course 6- Moral Living in Christ**

The purpose of this course is to help the students to understand that it is only through Christ that they can fully live out God's plans for their lives. Students are to learn the moral concepts and precepts that govern the lives of Christ's disciples.

**Prerequisite: Religion II**



**RELIGION IV 101/102 (12)****Core Course 7- The Call of Christ: On Christian Vocation****Course # 64127/64447**

The purpose of this course is to help students to understand the vocations of life: how Christ calls us to live. In this course, students should learn how all vocations are similar and how they differ. The course should be structured around married life, single life, priestly life, and consecrated life. Students should learn what it means to live life for the benefit of others and the value in considering a vocation in service to the Christian community.

**Course 8- Understanding the Scriptures- Dei Verbum: An In-depth Study of the Bible**

The purpose of this course is to give an overview of Sacred Scripture with an introduction to the basic principles for understanding and interpreting the Bible. Because of the extent of the scriptural material, this outline will not try to cover the vast content but rather offer comments about Scripture's purpose and religious significance. Given the limits of a semester of study, it will not be possible to introduce all the books of the Bible here. But every effort is made to project a sense of the unity of the narrative for the divine plan of salvation, the presence of God's action in this record of his Revelation, and his desire to share his merciful love with us.

**Prerequisite: Religion III**

# SCIENCE

## **ANATOMY AND PHYSIOLOGY 101/102 (11, 12)**

**Course # 75117/75127**

Anatomy is the study of internal and external structures and the physical relationship between body parts. Physiology is the study of how living organisms perform their vital functions. The class will study the structures that make up the human body and the processes that allow the body to function on chemical, cellular, tissue, organ and organ system levels.

**Prerequisite:** Recommendation of Chemistry instructor

## **BIOLOGY I CPII (9)**

**Course # 72117**

Biology I CPII is a study of life on earth from simple single celled organisms to the complex human being. The course will discuss the effects of man's interaction with all life on earth. In addition to the study of the many different living species, students will also study topics such as photosynthesis, respiration, genetics, disease, evolution, pollution, nutrition, and drug abuse.

**Prerequisite:** Placement is determined from the High School Placement Test (HSPT), grade school recommendations and other standardized testing in grade school

## **BIOLOGY I CPI (9)**

**Course # 72227**

Biology I is a detailed study of life on earth covering the five major kingdoms of organisms (monera, protista, fungi, plantae, animalia) in their ascending order of complexity. This course will also study topics such as photosynthesis, respiration, genetics, disease, evolution, pollution, nutrition, and drug abuse. This course will emphasize the role human beings play in the environment and the reasons for the conservation and preservation of all living things.

**Prerequisite:** Placement is determined from the High School Placement Test (HSPT), grade school recommendations and other standardized testing in grade school

## **BIOLOGY I HONORS (9)**

**Course # 72337**

Biology I Honors is a course designed to challenge students academically and to prepare them for more advanced biology training. Honors Biology will study the five major kingdoms of living organisms (monera, protista, fungi, plantae, animalia). This course will also cover topics such as photosynthesis, respiration, genetics, evolution, disease, pollution, nutrition, drug abuse, ecology, and conservation.

**Prerequisite:** Placement is determined from the High School Placement Test (HSPT), grade school recommendations and other standardized testing in grade school

## **BIOLOGY II 101/102 (11, 12)**

**Course # 72447/72457**

This course will cover topics such as: microbiology (bacteria, viruses, protozoa, and fungi), ecology (ecosystems, biospheres, environmental science), anthropology (human evolution), the plant kingdom (classification, structure and function, reproduction and responses), and vertebrates. Topics will be explored in much greater detail than in Biology I. This course will include lecture, labs, projects, and field trips.

**Prerequisite:** Biology and Chemistry

## **BIOLOGY 110/111 AP (Independent Study) (11, 12)**

**Course # 72547/72557**

This course is an introductory college-level biology course. Students cultivate their understanding of biology through inquiry-based investigations as they explore the following topics: evolution, cellular processes-- energy and communication, genetics, information transfer, ecology, and interactions.

**Prerequisite:** Biology and Chemistry

## **CHEMISTRY CPII (10)**

**Course # 73117**

Chemistry CPII is a course that surveys the eight following topics: 1. Supplying Our H<sub>2</sub>O Needs, 2. Conserving Resources, 3. Petroleum, 4. Understanding Food, 5. Nuclear Chemistry, 6. Chem-air and Climate, 7. Health: Your Risks and Choices, 8. Chemical Industry: Promise and Challenge. By studying the text, observing the demonstrations, and participating in the experiments, the students will become more informed citizens capable of making better decisions.

**Prerequisite:** Biology and recommendation of Biology instructor



**CHEMISTRY CPI (10)****Course # 73237**

Chemistry CPI is a study of the facts, formulas, and principles of matter, energy, structure of the atom, chemical formulas and equations, stoichiometry, phases of matter, gas laws, solutions, chemical equilibrium, acid and base, and titration. This course will prepare a student planning to pursue a non-science major for a college chemistry course. The student will also become a more informed citizen capable of making better decisions. By studying the text, observing the demonstrations, and participating in the experiments, a student will understand the basic concepts underlying the facts, formulas, and principles of chemistry. A lab workbook must be purchased from the school bookstore for this class.

**Prerequisite:** Biology and recommendation of Biology instructor

**CHEMISTRY HONORS (10)****Course # 73127**

This course will thoroughly prepare a student for a college chemistry class. The purpose of the course encompasses three goals:

1. That students learn the facts, formulas, and principles of matter, energy, structure of the atom, chemical formulas and equations, stoichiometry, phases of matter, gas laws, solutions, chemical kinetics and thermodynamics, chemical equilibrium, acid and base, oxidation and reduction, electrochemistry, and organic chemistry.
2. That students understand the basic concepts underlying the facts, formulas, and principles.
3. That students develop critical-thinking and problem solving skills not only for chemistry class but also for everyday life.

These goals will be accomplished by careful study of the text, outside reading and applications through demonstrations and laboratory experiments. A lab workbook must be purchased from the school bookstore for this class.

**Prerequisite:** Biology or Biology Honors and recommendation of Biology instructor

**CHEMISTRY II ADVANCED PLACEMENT (11, 12)****Course # 73557/73567**

Chemistry II AP is a course designed to complete all the topics taught at the college level in general chemistry. This course follows the curriculum established by the College Board and prepares the students to take the Advanced Placement examination in General Chemistry. It includes a review of chemistry I and a more complete study of the structure of matter, states of matter, and reactions. The course will include nuclear chemistry, equilibrium, kinetics, thermodynamics, descriptive chemistry, organic chemistry, biochemistry and electrochemistry and an intense laboratory component which will stress observation skills, data recording and interpretation in a written report. A laboratory workbook must be purchased from the school bookstore for this class.

**Prerequisite:** Completion of Chemistry CPI/Honors; completion of Algebra II CP1/Honors; and recommendation of chemistry instructor or current science teacher

**EARTH AND SPACE SCIENCE 101/102 (11, 12)****Course # 76117/76127**

This course explores the following topics: the formation of the earth, the study of the earth's ocean systems, atmosphere, climate, and geological formations, as well as the formation of the solar system, the study of star formations and the creation of the universe. This course is designed for students interested in taking a science course that contains a limited use of mathematics.

**Prerequisite:** None

**HEALTH (9)****Course # 71117****semester course**

The Health course will explore wellness and its six dimensions (physical, mental, social, emotional, environmental and spiritual). The students will discover the importance of being well in all of these dimensions in order to assist them in making decisions regarding health practices and human behavior. Chapter tests and quizzes will be given as well as a project on a health topic.

**Prerequisite:** None



**PHYSICAL EDUCATION \*\* (9)****Course # 71217****semester course**

This course offers a broad range of physical activities designed to introduce students to the concept of lifetime sport and exercise. It features team sports activities that can be used for future leisure pursuits, it teaches students to function effectively in athletic competition, and emphasizes the practice of good sportsmanship. The course also explores the importance of sport in society and how it can benefit everyone. Chapter tests will be given on each topic covered in class. Students will also be required to keep an exercise log.

A physical education uniform must be purchased through the school's spirit shop.

\*\*This course is graded on a satisfactory/unsatisfactory basis and is not computed for class rank or grade point average.

**Prerequisite: None**

**PHYSICS 101/102 (11, 12)****Course # 74237/74247**

This course will introduce the student to a quantitative view of the world by covering the following topics: mechanics, thermodynamics, sound optics, electricity, magnetism, and atomic physics.

**Prerequisites: Algebra II CPI/Honors, Chemistry CPI/Honors and recommendation of chemistry instructor**

**PHYSICS 110/111 ADVANCED PLACEMENT (11, 12)****Course # 74127/74137**

This course is designed for those students who intend to pursue a career in science or a science-related field. The topics covered are kinematics, dynamics, statics, conservation laws, rotational motion, and planetary mechanics. These topics will be covered at a level comparable to a college class.

**Prerequisites: 11<sup>th</sup> Grade - Algebra II CPI/Honors, Chemistry CPI/ Honors and recommendation of chemistry instructor**

**12<sup>th</sup> Grade - (1) Recommendation of Physics instructor (if Physics has been taken in Junior year),  
(2) Recommendation of Dean of Academics (if Physics has not been taken in Junior year)**

# SOCIAL STUDIES

## **AMERICAN GOVERNMENT (11, 12)**

**Course # 84127**

### **semester course**

The purpose of this course is to explore the American system of government; how it is organized, how it functions, and the philosophy and principles which guide it. This course includes one major research assignment.

**Prerequisite: None**

## **CURRENT ISSUES (12)**

**Course # 84227**

### **semester course**

Current Issues is a course designed to acquaint students with events that are presently taking place. This course explores the outbreak of peace as well as that of war, recession, inflation, famine, unemployment, crime, domestic violence, trends, fads and other pertinent issues that will give the student a better idea of the status of the world he is about to enter as an adult. This class may require the purchasing of supplemental materials such as a subscription to a news magazine or a newspaper.

**Prerequisite: None**

## **ECONOMICS 101/102 (11, 12)**

**Course # 13127/13137**

A "hands on" method of teaching how to organize a business, sell a product, bank etc. through a model student company. Topics will include how to manage a business, the importance of advertising, the stock market and trade.

**Prerequisite: None**

## **ECONOMICS 110/111 AP (11, 12)**

**Course # 13127/13137**

This AP program offers two courses in economics: AP Macroeconomics and AP Microeconomics. Each course corresponds to one semester of a typical college course in economics. AP Macroeconomics focuses on principles that apply to an economic system as a whole. AP Microeconomics focuses on principles of economics that apply to the functions of individual decision-makers, both consumers and producers, within the economic system.

**Prerequisite: None**

## **EUROPEAN HISTORY 110/111 ADVANCED PLACEMENT (12)**

**Course # 84327/84337**

European History is designed to prepare the students to take the Advanced Placement examination for college credit. The course surveys the political, economic, social, intellectual, and cultural developments in Europe from the year 1450 to the mid-1970s. Particular emphasis is placed on the rise of modern states and the forces that shaped them. Advanced reading and writing skills are essential. Some summer reading is required.

**Prerequisite: Recommendation of U.S. History or AP U.S. History instructor**

## **PSYCHOLOGY (11, 12)**

**Course # 75227**

### **semester course**

This course introduces the scientific study of human and animal behavior and experience. History, methods, basic concepts, and physiological components are studied. Major theories of perception, learning and personality are examined.

**Prerequisite: None**

## **PSYCHOLOGY 110/111 ADVANCED PLACEMENT (11, 12)**

**Course # 76227/76327**

Advanced Placement Psychology is designed to replicate a college-level psychology course and to prepare the student to take the advanced placement test in Psychology. The course is an in-depth study of behavior and mental processes. Major topics include an overview of the history of psychology, an introduction to research methods in psychology, a study of human thought processes, and the biological basis for behavior. Students will also learn about states of consciousness, motivation, emotion, life-span development, abnormal behavior, social psychology, and, theories of personality, as well as the principles of learning and memory. Good reading habits and writing skills are necessary for success in this course. A summer assignment is required for this course, and students should expect a major research assignment each semester.

**Prerequisite: None**

**SOCIOLOGY (11, 12)****Course # 85337****semester course**

This course examines the behavior of groups of humans in relation to society. Focus is placed on social theories, culture, social relationships, social groups, social inequalities, and acts of social deviance.

**Prerequisite:** None

**U.S. HISTORY (11)****Course # 83127**

The study of U.S. History is designed to acquaint the student with those individuals, events, and ideas which have shaped our American character. The course will cover the Colonial Period, the American Revolution, the New Nation Period, Sectionalism, the Civil War, Reconstruction, Industrialization (and attempts to reform it), Imperialism, World War I, World War II, and the post-war period.

**Prerequisite:** World Civilizations

**U.S. HISTORY ADVANCED PLACEMENT (11)****Course # 83237**

Advanced Placement U.S. History is designed to prepare the student to take the advanced placement test in U.S. History. The course is an in-depth study of the economic, administrative, political, social, and intellectual forces that have shaped American history. Advanced writing habits and reading skills are necessary for success. Some summer reading is required. This class requires the purchasing of supplemental materials.

**Prerequisite:** Recommendation of World Civilizations instructor

**WORLD CIVILIZATIONS (10)****Course # 82127**

World Civilizations is designed to give the student an overview of world cultures from the dawn of civilization to the present day. In studying these cultures, not only is the foundation laid for our own history and political institutions, but the influence of others is seen. Topics covered include the Classical World, the Middle Ages, the Renaissance, the Reformation, the Age of Discovery, the Age of Revolutions, Movements of Social Protest and the Contemporary World.

**Prerequisite:** None

**WORLD GEOGRAPHY (9)****Course # 81127****semester course**

World Geography is the foundation course for all other Social Studies course offerings at Covington Catholic High School. This course will study the earth's surface in terms of political geography, economic distribution, varying landforms, and climates.

**Prerequisite:** None

**WORLD HISTORY ADVANCED PLACEMENT (10)****Course # 83227**

This course is designed to prepare students to take the advanced placement test in world history. The course is a detailed, in-depth study of global civilizations from 8000 BC to the present day. Major themes addressed in this study will include analyzing commonalities among civilizations, political creations, social structures and efforts of state building and expansion. Special attention will be paid to the idea of a global civilization. Advanced reading, writing, and strong study habits are essential. Some supplemental supplies are required.

**Prerequisite:** Recommendation of the World History AP instructor and the Dean of Academics



# STEM

## **AEROSPACE ENGINEERING (11, 12)**

**Course # 141137**

This course propels students' learning in the fundamentals of atmospheric and space flight. As they explore the physics of flight, students bring the concepts to life by designing an airfoil, propulsion system, and rockets. They learn basic orbital mechanics using industry-standard software. They also explore robot systems through projects such as remotely operated vehicles.

**Prerequisite:** Introduction of Engineering Design and Principles of Engineering and recommendation of current STEM instructor

## **Introduction to Engineering Design (9, 10, 11)**

**Course #141117**

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

**Prerequisite:** Algebra I CPII/CPI/Honors or concurrent enrollment in Algebra I CPII/CPI/Honors

## **Principles of Engineering (10, 11, 12)**

**Course #141127**

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

**Prerequisites:** Introduction to Engineering Design (IED), IED instructor recommendation

## TECHNOLOGY (non-STEM)

### COMPUTER AIDED DESIGN (CAD) & 3-D MODELING I (10, 11, 12)

Course # 101117

#### semester course

The purpose of this course is to provide students with an understanding of the features associated with the operation of a computer aided design/ drafting (CAD) system. Students gain valuable hands-on experience using the AutoCAD software, learning program customization and file manipulation/ translation. They will also learn basics of mechanical drafting (some projects are first created by hand), as well as the process of Orthographic Projection, a 2-Dimensional drafting process used to represent a 3-Dimensional object. A very brief introduction to Photoshop will be given for presentation purposes. Students will also explore popular 3-D software such as Google Sketchup and AutoDesk Inventor. This hands-on computer aided drawing course is designed for students interested in computers and the engineering/ technical design process.

**Prerequisite:** None

### COMPUTER AIDED DESIGN (CAD) & 3-D MODELING II (10, 11, 12)

Course # 101217

#### semester course

CAD & 3-D Modeling II focuses on the application of the mechanical drafting process. This course will utilize the AutoCAD program but it will also involve additional drafting by hand. Students will also discuss and review other computer programs used in the engineering and design fields. Google Sketchup and AutoDesk Inventor will be explored again in greater detail and students will utilize the department's 3-D printer. The principle of Orthographic Projection will be utilized in the representation of more complex objects. CAD II students will form engineering teams and dive into the world of architecture and create digital and foam models. Throughout the course, students will develop exciting new product designs, working from sketch to digital to final prototype.

**Prerequisite:** CAD & 3-D MODELING I

### COMPUTER PROGRAMMING 110/111 AP (11, 12)

Course # 101177/102177

This is a college level course covering structured and object-oriented programming using Java. During the first semester of the course, the concepts learned in Introduction to Programming will be expanded to include graphical user interfaces and more complex programs in order to give students an intermediate understanding of programming. The development of good structured programming skills will be explored as students define and analyze problems, design computer solution algorithms and prove the correctness of the solution.

The second semester of this course will focus on structured programming, assignment and logical operators, decision-making, looping, functions and arrays. Students will also learn classes, inheritance, recursion, and other advanced topics using object oriented programming.

**Prerequisite:** Introduction to Programming and the recommendation of the Computer Programming AP instructor

### GRAPHIC DESIGN I (10, 11, 12)

Course # 101137

#### semester course

This course is an introduction to the field of Graphic Design. Students will be provided learning experiences associated with photo enhancement, photo manipulation, computer drawing and developing graphics used on web pages. This course will utilize Adobe Photoshop and Illustrator.

**Prerequisite:** Art I or concurrent enrollment in Art I or interview with graphic design instructor

### GRAPHIC DESIGN II (10, 11, 12)

Course # 101237

#### semester course

Taking up where Graphic Design I left off, this course is designed to further enhance the principles of graphic design and illustration. Students will be heavily involved in the primary software programs utilized by designers, artists and animators today: Adobe Photoshop, Adobe Illustrator, Adobe InDesign and Adobe Flash. Students will also be involved in creating many different real-world projects and products (i.e. corporate branding, package design, etc.). Working in these programs will not only allow students to create designs for this class, but it will also provide them with the skills needed for many other applications (including the creation of more dynamic presentations for other classes, presentations in college, and even in employment situations).

**Prerequisite:** Graphic Design I



**GRAPHIC DESIGN III (11, 12)****Course # 101337****semester course**

Graphic Design III builds upon the concepts acquired in Graphic Design I and II. In addition to advanced design concepts, students will focus on illustration techniques including cross hatching, shading, contour drawing, etc. New media such as video editing will also be explored using primarily iMovie on the Macintosh computer. In addition, the class will cover other popular design software such as Adobe Flash, Indesign, etc. Other topics will include color theories and designing with emotion to convey a message. Students in Graphic Design III will receive an overview of all aspects of portfolio presentation (i.e. interviewing techniques, resume review, etc.) in order to prepare them for future employment situations. Students will also create independent projects for the school and for various charities per the direction of the instructor.

**Prerequisite:** Graphic Design I and II and recommendation of the Graphic Design teacher

**INTRODUCTION TO COMPUTER SCIENCE (10, 11, 12)****Course # 101157****semester course**

This course provides an in-depth study of personal computer hardware and operating systems and is based on A+ Certification exams. The focus of this course is on identification, installation, configuration, and troubleshooting field replaceable components. Topics include microprocessors, memory, BIOS and CMOS, expansion bus, motherboards, power supplies, floppy drives, hard drives, SCSI devices, CD and DVD media, video, sound, portable PCs, printers, networks, the Internet, and Windows 9x/Me/NT/2000/ XP/Vista/Windows 7 operating systems.

**Prerequisite:** None

**INTRODUCTION TO PROGRAMMING (10, 11, 12)****Course # 101167****semester course**

This course is an introductory programming course. The course is designed for students interested in learning more about programming and it is recommended for those going on to college and/or technical school. The course provides students with a solid background of standard computer logic, binary and hexadecimal numbering systems, AND, OR, and NOT logic, as well as structured programming concepts. Successful completion of this course is a requirement for the TMC Advanced Programming 110/111 Course.

**Prerequisite:** None

**TECHNOLOGY APPLICATIONS AND COMMUNICATIONS (9)****Course # 101147****semester course**

This course will allow students an opportunity to gain valuable computer skills that will be utilized in high school and in a post-secondary setting as well. The Microsoft Office suite will be the main focus of the class including Word, Excel, PowerPoint and Publisher. Other computer skills will be addressed including typing skills, understanding the local computer network, file maintenance and organization and other necessary applications. In addition, in this course, students will acquire pertinent skills necessary for public speaking and will be required to deliver several speeches in front of their classmates.

**Prerequisite:** None

# WORLD LANGUAGES

## **FRENCH I-(Independent Study) (9, 10, 11)**

**Course # 41417**

In this distance learning course, students will utilize a variety of audio, reading, pictorial, and written exercises, in order to learn to recognize targeted vocabulary and start incorporating basic grammatical concepts: articles, plurals, and noun/adjective gender agreement, vowel and consonant pronunciation, sentence patterns, numbers and counting, introductions and greetings, directional symbols, body parts, geography, and other vocabulary. In every lesson, students practice reading and comprehending French text, and then use the vocabulary from those readings to increase their speaking fluency.

French I is a student directed class taught via the Internet. It is a self-paced class. Each student may proceed at his own pace but must cover the full agenda including all tests, quizzes, daily work, etc. by the end of the academic year in order to receive credit.

**Prerequisites: None**

## **FRENCH II-(Independent Study) (10, 11, 12)**

**Course # 42417**

Building on French I, students in this distance learning course will increase their speaking confidence, vocabulary, reading comprehension, sentence construction skills, cultural knowledge, and their grammar, including: object and reflexive pronouns, natural vs. arbitrary gender, and past and present verb tenses. By the end of the course, students should be able to rewrite the ending to a story, use simple phrases to expand conversations, and follow a story line with full comprehension.

French II is a student directed class taught via the Internet. It is a self-paced class. Each student may proceed at his own pace but must cover the full agenda including all tests, quizzes, daily work, etc. by the end of the academic year in order to receive credit.

**Prerequisites: Successful completion French I**

## **FRENCH III-(Independent Study) (11, 12)**

**Course # 43417**

This course is a continuation of the beginning level courses that will help the student continue learning the French language. In this course, the student will learn listening, speaking, reading, and writing skills through activities that are based on pedagogically proven methods of foreign language instruction. Throughout the give units of material (feelings, transportation, work, countries, future, health, home, measurements, professions and personal history), students learn to express themselves using an ever increasing vocabulary, present, past, future, and conditional-tense verbs, articles, adjectives and increasingly complex grammatical structures. Grammar is introduced and practiced in innovative and interesting ways with a variety of learning styles in mind. Culture is sprinkled throughout the course in an attempt to help the learner focus on the French speaking world and their culture, people, geographical locations and histories. The course is aligned to the national Foreign Language standards.

**Prerequisites: Successful completion French I and II**

## **GERMAN I (9, 10, 11)**

**Course # 41127**

The goal of German I is to develop fundamental knowledge of the four basic skills of reading, writing, speaking, and listening, with the heaviest emphasis on reading. Students will memorize words and the rules of grammar. A workbook must be purchased from the school bookstore for this class.

**Prerequisite: 9<sup>th</sup> Grade - Placement is determined from the freshman placement test, grade school recommendations and other standardized testing in grade school**  
**10<sup>th</sup> and 11<sup>th</sup> Grade - None**

## **GERMAN II (10, 11, 12)**

**Course # 42127**

German II builds on the skills acquired in German I. Students are introduced to more complex concepts in order to develop a greater understanding of the four skills of writing, reading, speaking and listening in the language.

**Prerequisite: Recommendation of German I instructor**



**GERMAN III 110/111 HONORS (11, 12)****Course # 43127/43137****GERMAN IV 110/111 HONORS (11, 12)****Course # 44127/44137**

German III/IV is a continuation of the skills taught in German I & II with greater emphasis placed on the skills of reading and speaking. This class is taught in the language with most replies also spoken in German. The spoken word is developed through plays, demonstrations, speeches, and dialogues. Written work or readings will be assigned often. A workbook must be purchased from the school bookstore for this class.

**Prerequisite: Recommendation of German II instructor**

**LATIN I (9, 10, 11)****Course # 41117**

Latin I will cover the basics of Latin grammar, culture, and history. Students will translate from Latin to English and English to Latin. They will also read excerpts from the great writers of Latin literature and history.

**Prerequisite: 9<sup>th</sup> Grade - Placement is determined from the freshman placement test, grade school recommendations and other standardized testing in grade school**

**10<sup>th</sup> and 11<sup>th</sup> Grade – None**

**LATIN II (10, 11, 12)****Course # 42227**

Latin II builds on the instruction of Latin I. Students are introduced to more complex grammatical structures, including the subjunctive mood, ablative absolute, result, and purpose clauses. The instruction in Roman culture and history becomes more detailed. The students are also introduced to various Roman authors and learn to read and appreciate famous Roman authors such as Julius Caesar and Marcus Tullius Cicero.

**Prerequisite: Recommendation of Latin I instructor**

**LATIN III-(Independent Study) (11, 12)****Course # 43337**

The Latin III class is a student directed distance learning class taught via the Internet which will augment the student's grammar and vocabulary skills, increase reading proficiency through cultural and historical presentations and student participation via phone and the Internet. Students will be required to read many authentic Latin writings including selections from Caesar, Cicero, Augustus, Pliny, Trajan, and Eutropius. Through the words of these Roman authors, the students will increase their knowledge of the intricacies of the late Roman Republic and early Roman Empire. Grammatical concepts and Latin vocabulary are reinforced in the context of these selections.

Latin III is a self-paced class. Each student may proceed at his own pace but must cover the full agenda including all tests, quizzes, daily work etc. by the end of the academic year in order to receive credit.

**Prerequisites: Successful completion of Latin I and II**

**SPANISH I CPII (10, 11)****Course # 41337**

In Spanish I CPII, the student concentrates on learning the acquisition of basic vocabulary and a foundation in Spanish grammar. The students are taught pronunciation and conversational skills. The pace will be somewhat slower than CPI with repeated enforcement of grammatical concepts. In addition, an introduction to Hispanic culture will be presented to the students. Presentations and projects will give the students alternate methods of evaluation. A workbook must be purchased from the school for this class.

**Prerequisite: This course is only available to students who are or have been in an English CPII course. It is not open to 9<sup>th</sup> grade students.**

**SPANISH I CPI (9, 10, 11)****Course # 41327**

In Spanish I emphasis is placed on providing the student a good foundation in the language. The students are taught pronunciation and beginning vocabulary with the goal of basic conversation by year's end. Writing becomes more important as the study of grammar develops throughout the first year. One of the goals for Spanish I is to prepare students for subsequent years of the language. The study of cultural topics is done throughout the year and students' reading skills are developed with cultural lectures. Another goal for first year students is to appreciate and value the influence in American society of people from different ethnic groups. A workbook must be purchased from the school for this class.

**Prerequisite: 9<sup>th</sup> Grade - Placement is determined from the freshman placement test, grade school recommendations and other standardized testing in grade school**

**10<sup>th</sup> and 11<sup>th</sup> Grade – None**

**SPANISH II CPII (11, 12)****Course # 42337**

Spanish II CPII builds upon the vocabulary and grammar taught in the introductory course. Communication both in oral and written form will be emphasized. Students in this class will develop better conversation skills in Spanish and study more advanced grammatical concepts. Like Spanish I CPII, students will need to spend time memorizing vocabulary words and studying grammatical concepts. Students will be taught to speak and write at a more advanced level. Through repetition and drills, students will master basic grammar. Projects and presentations will be additional measures of evaluation. A workbook must be purchased from the school for this class.

**Prerequisite:** Spanish I CPII This course is only available to students who are or have been in an English CPII course

**SPANISH II CPI (9, 10, 11, 12)****Course # 42327**

Spanish II continues the development of vocabulary and grammatical structures. Listening, speaking, reading and writing in the language are emphasized at a more advanced level. At the end of Spanish II, students will have studied all basic grammatical constructions and be able to understand and communicate in Spanish at an intermediate level. A workbook must be purchased from the school for this class.

**Prerequisite:** Recommendation of Spanish I instructor

**SPANISH III HONORS (11, 12)****Course # 43227**

Spanish III continues an emphasis on the spoken language. Class is conducted primarily in Spanish. More complex grammatical constructions are explored and students develop more sophisticated written and spoken communication skills. Students read short stories, poetry and condensed novels in Spanish and discuss the stories orally. Vocabulary is expanded and students work to develop proficiency in all skills associated with learning a second language. A workbook must be purchased from the school for this class.

**Prerequisite:** Recommendation of Spanish II instructor

**SPANISH IV 110/111 HONORS (12)****Course # 44227/44237**

Spanish IV is intended to develop functional, communicative language ability in written and oral form. The primary objectives are to reinforce the many grammatical structures and verb tenses that have already been learned, expand from conjugating to communicating, and synthesize what has been learned into actually using the material in communication. Students develop proficiency by communicating in Spanish both orally and in written form. Literary compositions are read and discussed.

**Prerequisite:** Recommendation of Spanish III Honors instructor



## GENERAL ELECTIVES

### INTRODUCTION TO CLASSICAL PHILOSOPHY (11, 12)

Course # 131117

#### semester course

This elective semester course is designed as an introduction to the Liberal Arts with an emphasis on classical philosophy. To prepare for a serious study of the liberal arts in college, students will examine the works of Plato, Aristotle, Aquinas, Montesquieu, Locke, and Tocqueville. The class has an emphasis on reading and discussing classical texts as well as participating in philosophical debates. Students should expect daily reading assignments and occasional tests in essay format. For anyone interested in pursuing a degree in the liberal arts, this class will provide them with a solid foundation.

**Prerequisite: None**

### JUNIOR VOCATIONAL CAREER/TECHNICAL SCHOOL

Course # 03317

### SENIOR VOCATIONAL CAREER/TECHNICAL SCHOOL

Course # 04417

Technical School programs are offered in conjunction with Gateway Community and Technical College. Emphasis is placed on academic achievement and the development of technical skills to ensure success not only in a current career field but also tomorrow's competitive job market.

A student taking technical courses attends classes at one of Gateway's campuses during times dictated by his Covington Catholic class schedule and Gateway's course offerings.

#### Technical programs offered:

Air Conditioning Technology

Energy Technology

Automotive Technology

Fire/Rescue Technology

Computers & Information Technology

Health Information Technology

Collision Repair Technology

Industrial Maintenance Technology

Computer & Information Technology

Manufacturing Engineering Technology

Diesel Technology

Plumbing Technology

Electrical Technology

Welding Technology

**Prerequisite: Guidance counselor recommendation**

# PROPOSED NEW COURSES 2017-18

## STEM

### ENGINEERING DESIGN AND DEVELOPMENT (11, 12)

Course # 141147

The knowledge and skills students acquire throughout PLTW Engineering come together in Engineering Design and Development as they identify an issue and then research, design, and test a solution, ultimately presenting their solution to a panel of engineers. Students apply the professional skills they have developed to document a design process to standards, completing Engineering Design and Development ready to take on any post-secondary program or career.

## TECHNOLOGY (non-STEM)

### ANIMATION I (10, 11, 12)

Course # 101197

#### semester course

This course provides a hands-on exploration of the animation process, including past & present technologies. Students will learn how the industry giants create their magic (ie PIXAR, DISNEY, WARNER BROTHERS, etc.), will be working in many different programs, apps and technologies, and will learn techniques that will be beneficial in future career settings (ie multi-media presentations).

Outline of common concepts explored:

- Image editing and manipulation (traditional & digital)
- Special Effects
- Multi-Media Presentations
- Past & Present Animation techniques
- Animation for the Web
- 2-D and 3-D modeling
- Storyboarding, Pencil Tests & Animatics
- Storytelling
- overview of the technical and historical evolution of animation

**Prerequisite: None**

### ANIMATION II (10, 11, 12)

Course # 101297

#### semester course

This course is a continuation of the skills and concepts explored in Animation I. More advanced techniques & tools will be explored.

Students will develop and execute animated short films within a small team of individuals. The class explores industry practices, development of a visual language, and collaborative teambuilding skills.

**Prerequisite: Animation I or Graphic Design I**



# REVISED COURSES 2017-18

## BUSINESS

### **ECONOMICS 110/111 AP (11, 12)**

**Course # 13127/13137**

This AP program offers two courses in economics: AP Macroeconomics and AP Microeconomics. Each course corresponds to one semester of a typical college course in economics. AP Macroeconomics focuses on principles that apply to an economic system as a whole. AP Microeconomics focuses on principles of economics that apply to the functions of individual decision-makers, both consumers and producers, within the economic system.

**Prerequisite: None**

## RELIGION

### **RELIGION IV 101/102 (12)**

#### **Core Course 7- The Call of Christ: On Christian Vocation**

**Course # 64127/64447**

The purpose of this course is to help students to understand the vocations of life: how Christ calls us to live. In this course, students should learn how all vocations are similar and how they differ. The course should be structured around married life, single life, priestly life, and consecrated life. Students should learn what it means to live life for the benefit of others and the value in considering a vocation in service to the Christian community.

#### **Course 8- Dei Verbum: An In-depth Study of the Bible**

The purpose of this course is to give an overview of Sacred Scripture with an introduction to the basic principles for understanding and interpreting the Bible. Because of the extent of the scriptural material, this outline will not try to cover the vast content but rather offer comments about Scripture's purpose and religious significance. Given the limits of a semester of study, it will not be possible to introduce all the books of the Bible here. But every effort is made to project a sense of the unity of the narrative for the divine plan of salvation, the presence of God's action in this record of his Revelation, and his desire to share his merciful love with us.

**Prerequisite: Religion III**

## TECHNOLOGY (non-STEM)

### **COMPUTER AIDED DESIGN (CAD) & 3-D MODELING I (10, 11, 12)** **semester course**

**Course # 101117**

The purpose of this course is to provide students with an understanding of the features associated with the operation of a computer aided design/ drafting (CAD) system. Students gain valuable hands-on experience using the AutoCAD software, learning program customization and file manipulation/ translation. They will also learn basics of mechanical drafting (some projects are first created by hand), as well as the process of Orthographic Projection, a 2-Dimensional drafting process used to represent a 3-Dimensional object. A very brief introduction to Photoshop will be given for presentation purposes. Students will also explore popular 3-D software such as Google Sketchup and AutoDesk Inventor. This hands-on computer aided drawing course is designed for students interested in computers and the engineering/ technical design process.

**Prerequisite: None**

**semester course**

CAD & 3-D Modeling II focuses on the application of the mechanical drafting process. This course will utilize the AutoCAD program but it will also involve additional drafting by hand. Students will also discuss and review other computer programs used in the engineering and design fields. Google Sketchup and AutoDesk Inventor will be explored again in greater detail and students will utilize the department's 3-D printer. The principle of Orthographic Projection will be utilized in the representation of more complex objects. CAD II students will form engineering teams and dive into the world of architecture and create digital and foam models. Throughout the course, students will develop exciting new product designs, working from sketch to digital to final prototype.

**Prerequisite: CAD & 3-D MODELING I**



# INDEX

Academic Support Program .....	10
Accounting I 101/102 .....	11
Advanced Band .....	15
Advanced Placement Program .....	3
Aerospace Engineering.....	28
Algebra I CP III .....	17
Algebra I CP II .....	17
Algebra I CP I .....	17
Algebra I H.....	17
Algebra II CP III .....	17
Algebra II CP II .....	18
Algebra II CP I .....	18
Algebra II H .....	18
Algebra III 101/102.....	18
American Government.....	26
Anatomy and Physiology 101/102.....	23
Animation I.....	35
Animation II.....	35
Art I .....	15
Art II.....	15
Art III 110/111 H.....	15
Art IV 110/111 H .....	15
Art of the Film .....	16
Band .....	16
Biology I CP II .....	23
Biology I CP I .....	23
Biology I H .....	23
Biology II 101/102 .....	23
Biology 110/111 AP .....	23
Calculus 110/111 AP .....	18
Career Exploration.....	11
Chamber Choir 110/111.....	16
Chemistry CP II.....	23
Chemistry CP I.....	24
Chemistry I H .....	24
Chemistry II 110/111AP .....	24
CAD & 3-D Modeling I.....	29, 36
CAD & 3-D Modeling II.....	29, 37
Computer Programming 110/111 AP .....	29

Course Offerings	
Freshman.....	5
Sophomore .....	6
Junior.....	7
Senior .....	8
Creative Writing .....	12
Current Issues .....	26
Curriculum Overview.....	9
Drama I.....	16
Drama II.....	16
Drop/Add Procedures .....	2
Earth and Space Science 101/102.....	24
Economics 101/102 .....	11, 26
Economics 110/111 AP.....	11, 26, 36
Engineering Design & Development .....	35
English I CP II .....	12
English I CPI .....	12
English I H .....	12
English II CP II .....	12
English II CPI .....	12
English II H .....	13
English III CP II .....	13
English III CPI .....	13
English III H .....	13
English III AP .....	13
English IV 101/02 CP II.....	13
English IV 101/102 CPI.....	14
English IV 110/111 H .....	14
English IV 110/111 AP .....	14
European History 110/111 AP.....	26
Failures.....	3
French I .....	31
French II .....	31
French III .....	31
Geometry CP III .....	19
Geometry CP II .....	19
Geometry CPI .....	19
Geometry H .....	19
German I.....	31
German II.....	31
German III 110/111 H .....	32
German IV 110/111 H .....	32
Grading Scale Information .....	4



Grading System .....	4
Graphic Design I .....	29
Graphic Design II .....	29
Graphic Design III .....	30
Health .....	24
Introduction to Classical Philosophy .....	34
Introduction to Computer Science .....	30
Introduction to Engineering Design .....	28
Introduction to Programming .....	30
Journalism I .....	14
Journalism II .....	14
Junior Vocational School .....	34
Latin I .....	32
Latin II .....	32
Latin III .....	32
Mathematical Modeling .....	19
Music Appreciation .....	16
Personal Finance I .....	11
Personal Finance II .....	11
Philosophy of the Curriculum .....	2
Physical Education .....	25
Physics 101/102 .....	25
Physics 110/111 AP .....	25
Pre-Calculus 101/102 CP II .....	19
Pre-Calculus 101/102 CP I .....	20
Pre-Calculus H .....	20
Pre-College Curriculum Requirements .....	4
Principles of Engineering .....	28
Probability and Statistics .....	20
Promotions .....	3
Purpose of Curriculum Guide .....	2
Psychology .....	26
Psychology 110/111AP .....	26
Religion I .....	21
Religion II .....	21
Religion III 101/102 .....	21
Religion IV 101/102 .....	22, 36
Requirements for Graduation .....	3
Select Choir 101/102 .....	16
Senior Vocational School .....	34
Sociology .....	27
Spanish I CP II .....	32
Spanish I CP I .....	32
Spanish II CP II .....	33

Spanish II CPI.....	33
Spanish III H.....	33
Spanish IV 110/111 H.....	33
Specialized Art 101/102 .....	16
Speech .....	14
Statistics AP.....	20
Technology Applications & Communication .....	30
U.S. History.....	27
U.S. History AP.....	27
Weighting System .....	4
Withdraw/Failing .....	3
World Civilizations.....	27
World Geography.....	27
World History AP.....	27





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