

**MOUNT SAINT JOSEPH  
HIGH SCHOOL**



**COURSE BULLETIN  
2017 - 2018**

Xaverian Brothers - Sponsored Schools

*- An Exemplary School - U.S. Department of Education -*

## GRADUATION REQUIREMENTS

All students graduating from Mount Saint Joseph High School must satisfy the credit requirements listed below and must attempt a minimum of six credits each year.

Required Subjects:

Theology	4 credits
(40 hours of Christian Service must be completed as a course requirement for Theology - Junior)	
(20 hours of Christian Service must be completed as a course requirement for Theology - Senior)	
English	4 credits
Foreign Language	2 credits
(2 yrs. of the same language)	
Mathematics	3 credits
Science	3 credits
(Includes Biology)	
Social Studies	3 credits
(Includes U.S. History)	
Physical Education/Health	1 credit
Fine Arts	1 credit
Technology	1 credit
Elective Subjects:	2 credits
<b>TOTAL Academic Requirements:</b>	<b>24 credits</b>

**MOUNT SAINT JOSEPH HIGH SCHOOL** admits students of any race, color, national and ethnic origin to all the rights, privileges, programs and activities generally accorded or made available to the students at our school. We do not discriminate on the basis of race, color, national and ethnic origin in the administration of our educational and admissions policies, scholarship programs, and athletic and other school-administered programs.

*Any textbooks noted in each course description are subject to change due to availability. Printing status and edition changes including addition or changes to electronic options may occur without prior notice. The exact book list will be finalized by June 30 and published elsewhere.*

*The listing of a course in this bulletin is not a guarantee that it will offered in the upcoming year or summer session. Course offerings are subject to enrollment and other scheduling concerns.*

## THEOLOGY

### 111 THEOLOGY I - FRESHMAN

This course is an overview of the Catholic Faith. It will include discussions on faith; sin; salvation; the Christian understanding of God; the life, death, and Resurrection of Jesus; the Sacraments; Christology; the Church; and Christian principles and values. **Requirements:** Regular homework assignments, individual and group projects, objective and essay tests.

**Texts:** *Catholic Faith Handbook* and *The Catholic Youth Bible*. 1 credit

### 122 THEOLOGY II - SOPHOMORE

Morality/Old Testament: The first semester of this course will be an overview of the Old Testament. The goal will be to introduce students to key people, events, and places in the Scriptures, highlighting themes of creation, Covenant, Law, and Exile. The second semester will focus on moral decision-making, personal and social ethics, conscience formation, evil, sin, freedom, and responsibility. **Requirements:** Workbook assignments, research, special projects, individual and group presentations, tests, quizzes, etc. **Texts:** *The Catholic Youth Bible*, *Journey Through the Old Testament*, and *Your Life in Christ*. 1 credit

### 133 THEOLOGY III - JUNIOR

New Testament/Church History: The first semester of this course will be an overview of the New Testament. The curriculum will focus on the life and teaching of Jesus Christ in the Gospels, and the spread of Christianity as featured in the Acts of the Apostles and the New Testament Letters. In the second semester, students will receive an overview of the Catholic Church from the time of Christ to the present day, with a goal of examining the impact of the Church on the world throughout history. **Requirements:** Reading and research assignments, quarterly assignments, reflection papers, 40 hours of Christian service. **Texts:** *Bible*, *Journey Through the New Testament*, *This Is Our Church*, and supplemental materials. 1 credit

### 144 THEOLOGY IV - CATHOLIC SOCIAL TEACHING

This course will define and explain Catholic social teaching. The objective is to enable students to apply the principles and guidelines taught by the Catholic Church. The course will examine various real-life issues within the context of the Church's teachings. The key concepts of this course will be the following: human dignity, respect for life, family and community, rights and responsibilities, the common good, preferential option for the poor and vulnerable, the dignity of work and the rights of workers, the principle of solidarity, and the principle of stewardship and care of God's creation. **Requirements:** 20 hours of Christian service.

**Texts:** Papal Encyclicals, *Catholic Social Teaching*, and supplemental materials. 1 credit

### 141 THEOLOGY IV - SPIRITUALITY AND SERVICE

This course will enable students to live out the Gospel challenge to serve the marginalized of our society as Jesus did. Each student will participate in a service experience with a marginalized group. Rooted in the spirit of our Xaverian founder Theodore Ryken, who fell in love with the service of God, students will explore the relationship between action and justice. The students will also learn about various other spiritualities within our Catholic Tradition. **Requirements:** Parental permission for traveling to and from service sites during the course of the school day, commitment of four days of service per week at selected service sites, capacity for self-reflection, active participation in prayer. This course will meet in the classroom one day per week. Prerequisites: Instructor approval; student in good standing.

**Texts:** Various reading materials provided by instructor. 1 credit

### 143 HONORS THEOLOGY IV

Open to seniors with a recommendation from their Junior Theology teacher and departmental approval. Seniors who take this course will have "Honors" on their transcript, but will not have Honors point value added to their GPA. This course aims to introduce students to the Christian vision of the moral life. The course has two principle parts. In the first part of the course, we will explore the fundamentals of Catholic moral theology. We will look to Scripture and Tradition to articulate the contribution of Catholic Theology to ethics. We will also discuss the process of moral decision-making. In the second part of the course, we will draw

on the material from the first part of the year to examine specific ethical and moral issues, including: social justice, poverty, the modern global economy, torture, and the death penalty. We will look at the moral concerns at the heart of life and death issues like: abortion, sexuality, reproductive technologies, end-of-life matters, stem cell research, human cloning, etc.  
**Requirements:** 20 hours of Christian service. **Texts:** Catholic Social Teaching, Papal Encyclicals, and supplemental materials. 1 credit

## ENGLISH

### 210 FRESHMAN ENGLISH: Elements of Writing (Honors)

Open to qualified freshmen. You will actively participate in this class by reading, writing, and speaking about a wide variety of subjects, which are presented in many different forms (e.g. personal narrative, biography, research, short story, poetry, movie review, etc.). This course's primary objective is to prepare you to function in a challenging academic environment. You will learn to listen, read, and think critically, and to communicate your thoughts clearly and effectively in both oral and written form. You will practice and refine your skills in the language arts by writing, then discussing and editing your writing. 1 credit.

**Requirements:** nightly reading and writing homework, long-term group and individual projects, tests, and class participation.

**Texts:** *Vocabulary Workshop, Level E - (e-text)*  
Novels to be announced.

### 211 FRESHMAN ENGLISH: Elements of Writing (College Prep)

Open to freshmen. You will actively participate in this class by reading, writing, and speaking about a wide variety of subjects, which are presented in many different forms (e.g. personal narrative, biography, research, short story, poetry, movie review, etc.). This course's primary objective is to prepare you to function in a challenging academic environment. You will learn to listen, read, and think critically, and to communicate clearly and effectively your thoughts in both oral and written form. You will practice and refine your skills in the language arts by writing, then discussing and editing your writing. 1 credit.

**Requirements:** nightly reading and writing homework, long-term group and individual projects, tests and quizzes, class participation.

**Texts:** *Vocabulary Workshop, Level E*  
Novels to be announced.

### 220 AMERICAN LITERATURE SURVEY (Honors)

Open to all who have completed 210 with at least a B average and teacher approval, and to those who completed 211 with an A average and teacher approval. This course focuses on significant movements in American literature from the settling of our country into the 21<sup>st</sup> century. The literature will be utilized to develop effective reading and writing skills. 1 credit.

**Requirements:** Essays/papers per quarter, nightly homework (reading, writing and PSAT Prep.), outside novel reading, projects, speeches.

**Texts:** *Pearson Common Core Literature: The American Experience*  
*Vocabulary Workshop, Level F*  
Novels to be announced

### 223 AMERICAN LITERATURE SURVEY (College Prep)

Open to sophomores. Students will focus on significant movements in American Literature as a background from which they may develop effective reading, writing, listening, speaking, and critical thinking skills. 1 credit

**Requirements:** Tests, quizzes, essays, nightly homework (reading, writing and PSAT Prep.), projects.

**Texts:** *Pearson Common Core Literature: The American Experience*  
Novels to be announced

### 230 BRITISH LITERATURE SURVEY (Honors)

Open to students who have completed American Literature Survey (Honors) with at least a B average and teacher approval or College Prep American Literature Survey with an A

average and teacher approval. This is a course that covers literature beginning with Anglo-Saxon literature and ending with some samples of 20th century prose, poetry, and drama. The major figures in the literary tradition of England will be covered in an attempt to introduce students to the literature of England, as well as the history of the English language and the history of the peoples of England. Student writing will be emphasized. Analytical writing will be stressed, but creative and personal writing will be encouraged, too. The study of vocabulary in the context of literature as well as in preparation for the SAT will be important. Successful completion of the junior research paper is required for obtaining credit for this course. 1 credit.

**Requirements:** Research paper, tests, quizzes, essays, outside novel reading, long-term projects.

**Texts:** *Pearson Common Core Literature: The British Tradition*  
*Vocabulary Workshop, Level G*  
Novels to be announced

### **233 HONORS AFRICAN-AMERICAN LITERATURE**

Open to seniors who have completed British Literature (Honors) with at least a B average and teacher approval or British Literature (College Prep) with an A average and teacher approval. This is a year-long course that will introduce and acquaint students with texts, writers, and themes that have shaped the African American literary tradition. In pursuing the study of African American literature, students will be asked to consider numerous topics, including, but not limited to, folk influences (storytelling), music, and religion in the development of the literary tradition; the quest for freedom and how it connects to movement from South to North; the complexity of language; and the search for self-definition within a larger historical approach. 1 credit

**Requirements:** Tests, quizzes, writing assignments, long-term projects, nightly homework, outside novel reading

**Texts:** *Norton's Anthology of African-American Literature*  
Novels to be announced

### **235 BRITISH LITERATURE SURVEY (College Prep)**

Open to juniors who have completed American Literature Survey. The focus of this course will be on British literature as a tool for helping students understand the literary tradition of England, as well as the history of the English language and that of the peoples of Great Britain. Beginning with a study of the earliest foundations of the English language, students will trace a chronological development of British literature from Beowulf into the twentieth century. Student writing will be emphasized. 1 credit.

**Requirements:** Research paper, tests, quizzes, writing activities, outside novel reading, long-term projects and SAT Prep.

**Texts:** *Pearson Common Core Literature: The British Tradition*  
Novels to be announced

### **236 AFRICAN-AMERICAN LITERATURE (College Prep)**

Open to seniors. This is a year-long course that will introduce and acquaint students with texts, writers, and themes that have shaped the African American literary tradition. In pursuing the study of African American literature, students will be asked to consider numerous topics, including, but not limited to, folk influences (storytelling), music, and religion in the development of the literary tradition; the quest for freedom and how it connects to movement from South to North; the complexity of language; and the search for self-definition within a larger historical approach. 1 credit

**Requirements:** Tests, quizzes, writing assignments, projects, nightly homework

**Texts:** *Vocabulary Workshop, Level H*  
Novels to be announced

### **240 HONORS ENGLISH IV – WORLD LITERATURE**

Open to seniors who have completed British Literature (Honors) with at least a B average and teacher approval or British literature (college prep) with at least an A average and teacher approval. This course surveys the literature of Europe, Africa, the Far East, Latin America, and Great Britain. Students will read, and discuss, and write about poetry, short

stories, plays, and novels dating from the ancient Egypt to the 20th century. 1 credit.

**Requirements:** Tests, quizzes and writing assignments.

**Texts:** *World Literature*

Novels to be announced

**241 WORLD LITERATURE SURVEY (College Prep)**

Open to seniors. This course surveys the literature of Europe, Africa, the Far East, Latin America, and Great Britain. Students will read, discuss, and write about poetry, short stories, plays, and novels dating from the classical period to the 20th century. Students will be required to write papers on their major reading assignments. 1 credit.

**Requirements:** Daily journals, tests, quizzes and essay assignments.

**Texts:** *World Literature*

Novels to be announced

**242 WRITING ABOUT THE HUMANITIES (Elective)**

This course is a year-long elective with an interdisciplinary approach to the examination of the Humanities (the manmade arts that convey the cultural aspects of humanity). The intertextuality (the relationship between two or more texts that quote from one another, allude to one another, or otherwise connect) of each work in conjunction with others will be explored. When appropriate, guest-lecturers may be brought in to illuminate certain areas. Students will be expected to read, think, discuss, and react to works using the written word. Students who apply for this course must receive a recommendation from a Humanities teacher who is not in the English department (music, history, theology, foreign language, or art). This course is open to juniors and seniors. It is not meant as a replacement for the core English courses of African-American Literature, British Literature and World Literature. Students may elect to take "Writing about the Humanities" as a complement to their core courses. 1 credit

**Requirements:** Daily classwork and homework assignments, tests and quizzes, student-designed projects, and composing essays.

**Texts:** *The Odyssey* (Homer)

*Leaves of Grass* (Walt Whitman)

*Waiting for Godot* (Samuel Beckett)

*Rosencrantz and Guildenstern Are Dead* (Tom Stoppard)

*1984* (George Orwell).

**250 ADVANCED PLACEMENT (AP) ENGLISH – LITERATURE AND COMPOSITION**

Open to seniors with department approval and an A average in Honors level courses. AP English is a full-year course for academically talented students. A major purpose of the course is to prepare students to take the test for advanced placement in college. Topics covered are literary terms, criticism, and stylistic analysis through a sampling of fiction, poetry, and drama. Emphasis is placed on analytical thinking and the testing strategies pertinent to the AP test itself. 1 credit.

**Requirements:** Students are responsible for daily assignments, but emphasis is on short-range and long-range reading and writing projects.

**Text:** *Literature - Introduction to Reading and Writing*

Novels to be announced

**260 ADVANCED PLACEMENT (AP) ENGLISH – LANGUAGE AND COMPOSITION**

Open to seniors with department approval and an A average in Honors level courses. Students will prepare to take an exam for advanced placement in college. A full-year course, AP English Language and Composition focuses students' reading not on imaginative literature, but rather on discursive prose that covers a wide range of subjects, from physics, biology, and the environment to history, politics, and the law. Through a workshop approach, the course engages students in becoming skilled readers of prose written in a variety of periods, disciplines, and rhetorical contexts and in becoming skilled writers who compose for a variety of purposes. Students will analyze how professional writers use rhetorical techniques to achieve desired effects. Proceeding from this analysis, they will work to discover the power of voice in their own writing. 1 credit.

**Requirements:** Timed writings, multiple-choice tests of close-reading skills, daily

reading and writing homework, and long-term projects focusing on both analytical and argumentative writing.

**Texts:** *The Norton Reader, 13<sup>th</sup> edition*

### **270 GRAMMAR & USAGE (Elective)**

The objective of this original credit semester course is to train students to improve their practices in critical reading and academic writing with a special focus on the formal usage of traditional English grammar. Students will study the formal rules of traditional English grammar; they will then apply what they have learned in their study of formal usage of grammar by critically reading and evaluating—in writing—their writing, the writings of their classmates, and the writings of published authors. Students will improve their skills in drafting, writing, and revising/editing; they will also write in a variety of academic and professional modes. This semester-long course serves the needs of students in need of remediation as well as high-performing students by providing instruction that will enhance their reading, writing, and critical thinking abilities in an effort to improve literacy, improve (P)SAT Scores in the evidence – based reading and writing test category sections, and improve critical reading and writing abilities. **Requirements:** Daily classwork and homework assignments, tests and quizzes, student-designed projects, and composing essays. ½ credit (One Semester course)

**Texts** *English Simplified, 13<sup>th</sup> edition*  
Exercise Book for *English Simplified, 13<sup>th</sup> edition*

## **FOREIGN LANGUAGE**

*(Two years of the same language required; progressing to level III or IV recommended)*

### **301 FRENCH I (Honors)**

French I develops the study of the French Language through a sequential process using the four basic skills: listening, speaking, reading and writing. The emphasis is on speaking and developing listening comprehension, while developing reading and writing skills. Students are given an introduction to French culture and civilization. The emphasis is on active student participation in French. Admission to the Honors Program is based on the results of a placement test and prior academic experience and performance. **Requirements:** daily homework, weekly quizzes, tests, project-based assessments and the National French Exam. **Texts:** *Bon Voyage Level 1 2008* (MSDE text provided). 1 credit

### **302 FRENCH I**

French I develops the study of the French Language through a sequential process using the four basic skills: listening, speaking, reading and writing. The emphasis is on speaking and developing listening comprehension, while developing reading and writing skills. Students are given an introduction to French culture and civilization. **Requirements:** daily homework, weekly quizzes, tests and project-based assessments. **Texts:** *Bon Voyage Level 1 2008* (MSDE test provided). 1 credit

### **304 FRENCH II (Honors)**

Emphasis is on active student participation in French while continuing to develop the four basic language skills. Placement in the honors program is based on testing and prior academic performance with a grade of “B” or higher. This course is more accelerated than 305. **Requirements:** daily homework, weekly quizzes, 2-3 tests per quarter, project-based assessments and the National French Exam. **Texts:** *Bon Voyage Level II 2008 ed. French II Years*, French-English Dictionary. 1 credit

### **305 FRENCH II**

This course continues the development of the four basic skills of language study. Greater emphasis is placed on reading and writing. Students will continue their study of French grammar and Francophone cultures. **Requirements:** daily homework, weekly quizzes, 2-3 test per quarter, class participation and project-based assessments. **Texts:** *Bon Voyage Level II 2008 ed., French II Years*; French-English Dictionary. 1 credit

**307 FRENCH III (Honors)**

Open to all students who have completed French II Honors with a grade of “B” or higher and the recommendation of the teacher. Students will continue to develop their four language skills with emphasis on oral proficiency at the intermediate and advanced levels, grammatical structures, a comprehensive grammar review and historical, cultural and literary readings. Study will include the history of France from its origins until the 19th century. **Requirements:** daily homework, weekly quizzes, writing summaries and translations, 2-3 tests per quarter, oral class participation, readings of French literature and history, project-based learning assessments and the National French Exam. **Texts:** *Tresors du temps, French III Years; French-English Dictionary*. 1 credit

**308 French III**

Open to all students who have completed French II with a grade of “B” or higher and the recommendation of the teacher. Students will continue to develop their language skills to increase their understanding of French history and culture. Study will include the history of France from its origins until the 19th century. Emphasis will be placed on oral proficiency at the intermediate level. **Requirements:** daily homework, weekly quizzes, writing of summaries and translations, 2-3 tests per quarter, oral class participation, outside reading of French literature and history and project-based assessments. **Texts:** *Tresors du temps, French III Years, French-English Dictionary*. 1 credit

**310 ADVANCED PLACEMENT (AP) FRENCH**

Open to all students who have completed French III Honors with a grade of “B” or higher, the recommendation of the teacher, and an evaluation of performance on the National French Exam. Students will continue to develop the four language skills with emphasis on oral proficiency at the intermediate and advanced levels, advanced reading proficiency of historical and cultural works. Study will include focus on 19th & 20th centuries, and contemporary culture. **Requirements:** daily homework, writings of summaries and compositions, weekly quizzes, dictation, lecture notes and several tests per quarter, oral class participation, outside reading of French literature, project-based and performance based assessments, National French Exam and the AP French exam. **Texts:** Selected novels, *Une fois pour toutes, AP French: Preparing for the French Language and Culture Exam, French-English Dictionary*. 1 credit

**311 FRENCH IV (Honors)**

Open to all students who have completed French III Honors with a grade of “B” or higher, or the recommendation of the teacher. Students will continue to develop the four language skills with emphasis on oral proficiency at the intermediate and advanced levels, advanced reading proficiency of historical and cultural works, and study through the media. Study will include focus on 19th century through contemporary culture. **Requirements:** daily homework, writings of summaries and compositions, weekly quizzes, dictation, lecture notes and several tests per quarter, project-based and performance-based assessments, oral class participation, outside reading of French literature and the National French Exam. **Texts:** Selected novels, *Une fois pour toutes, AP French: Preparing for the French Language and culture Exam, French-English Dictionary*. 1 credit

**320 DEPAUL LANGUAGE**

The aim of the DePaul Language program is to provide the students exposure to foreign language, history and culture during the course of one semester. The class includes the study of past influences, stereotypes and the richness of culture. Students will be exposed to multiple languages from historically important cultures/people. The course is designed to pique student interest and expand on themes presented throughout various disciplines **Requirements:** Project Based Learning assessments. **Texts:** None 1 credit

**321 ITALIAN I (Honors)**

Italian I Honors develops the study of the Italian language through the four basic skills: listening, speaking, reading and writing. The emphasis is on speaking while developing listening comprehension skills, and on writing while developing reading comprehension skills. Students

are given an introduction to contemporary Italian culture and civilization through the ages. Admission to the honors program is based on language-arts testing, prior academic experience and performance. **Requirements:** daily homework, weekly quizzes, dictations, chapter tests and Project Based Learning assessments. **Texts:** *Prego! An Invitation to Italian, 8th edition* (MSDE text provided) workbook, & lab manual, *Italiano Essenziale 1*. 1 credit

### 322 ITALIAN I

Italian I develops the study of the Italian language through the four basic skills: developing listening comprehension skills, and on writing while developing reading comprehension skills. Students are given an introduction to contemporary Italian and civilization through the ages. **Requirements:** daily homework, weekly quizzes, dictations, chapter tests and Project Based Learning assessments. **Texts:** *Prego! An Invitation to Italian, 8th edition* (MSDE text provided), workbook, & lab manual, *Italiano Essenziale 1*. 1 credit

### 341 SPANISH I (Honors)

Spanish 1 Honors develops the four basic language skills: listening, speaking, reading and writing. Students are introduced to the culture of the Spanish speaking world through the active use of the language. The History of Mexico, the Conquista and indigenous civilizations will be addressed. More personal responsibility and self-reliance are expected of students who take this, which moves at a faster pace than Spanish 1. Grammar is emphasized. The results of the placement exam will determine eligibility to take this class. **Requirements:** homework, quizzes, tests, participation, Project Based Learning assessments and the National Spanish Exam. **Texts:** *¡Qué Chévere! 1*. 1 credit

### 342 SPANISH I

Spanish 1 is an introductory class that develops the four basic skills of language learning: listening, speaking, reading and writing. Students are introduced to the culture of the Spanish speaking world through the active use of the language. Various cultural topics including social justice are introduced. Emphasis is on active participation in the target language and completion of various tasks. **Requirements:** homework, quizzes, tests and Project Based Learning assessments. **Texts:** *¡Qué Chévere! 1*. 1 credit

### 346 SPANISH II (Honors)

Open to all students who have completed Spanish I Honors with a grade of “B” or higher or for students who have completed Spanish I with an “A” and received teacher recommendation. This course continues to develop the four basic language skills, with heavy emphasis on grammar. Students work with a variety of Spanish language material and are expected to be more independent in their studies. Classes during the second semester will be conducted mostly in Spanish. **Requirements:** homework, quizzes, test, Project Based Learning assessments and National Spanish Exam. **Texts:** *¡Qué Chévere! 2*. 1 credit

### 347 SPANISH II

Open to all students who have completed Spanish I or by placement exam. This course continues to develop the four basic language skills. Continued emphasis is placed on reading, writing and speaking. The history of Spain will be addressed. The language is presented within the context of Hispanic culture using authentic material. **Requirements:** homework, quizzes, tests and Project Based Learning assessments. **Text:** *¡Qué Chévere! 2*. 1 credit

### 349 SPANISH III (Honors)

Open to all students who have completed Spanish II Honors with a “B” or higher or for students who have completed Spanish II with an “A” and received teacher recommendation. Students will continue to develop the four language skills. Puerto Rico, the Dominican Republic, Cuba and the influence of Hispanic culture in the United States are explored through authentic material. This course emphasizes oral proficiency on the part of the student through daily conversation in the classroom. **Requirements:** homework, quizzes, tests, Project Based Learning assessments and the National Spanish Exam. **Texts:** *¡Qué Chévere! 3*. 1 credit

**350 SPANISH III**

Open to all students who completed Spanish II with a “C” or higher and teacher approval. Students will continue to develop the four language skills and increase their understanding of the Spanish-speaking world. Emphasis is placed on reading and writing. Puerto Rico, the Dominican Republic, Cuba and the influence of Hispanic culture in the United States are explored through reading authentic text. **Requirements:** homework, quizzes, tests and Project Based Learning assessments. **Texts:** *¡Qué Chévere!* 3. 1 credit.

**352 ADVANCED PLACEMENT (AP) SPANISH LANGUAGE**

Open to students with an “A” in Spanish 3 Honors or a “B” in Spanish IV Honors and approval of both the AP and current teachers. This course is for the highly motivated Spanish student and begins with a complete grammar review. Students will examine Hispanic Culture through study of current events and authentic source material, using this as a lens for students to reflect on their place in their own community. The objective of all work is a high degree of proficiency in speaking, understanding, reading, writing and creating work in all of those areas over a broad range of subject matter in the Spanish language. **Requirements:** written and oral tests, essays and short compositions, preparation for reading comprehension and speaking portion of the AP Spanish Language and Culture exam, and the National Spanish Exam. **Texts:** *Triángulo Aprobado*, *AP Spanish: A Guide for the Language Course*, and small notebook for vocabulary. 1 credit

**353 SPANISH IV (Honors)**

Open to all students with a grade of “B” of higher in Spanish III Honors or students who have completed Spanish III with an “A” and received teacher recommendation. The course begins with a complete grammar review, then transitions to primarily authentic source content. The course is conducted extensively in Spanish. As a level four honors course, students are expected to write and speak more in the target language. The course prepares sophomores and juniors to take the AP Spanish language course and seniors to continue their language studies at the university level. As such, students are expected to take on more independence and responsibility for their studies. **Requirements:** homework, quizzes, tests, oral presentations, Project Based Learning assessments and the National Spanish Exam **Text:** *¡Qué Chévere!* 4. 1 credit

**357 ESL I – ENGLISH AS A SECOND LANGUAGE, LEVEL I**

This course is open to and required of all students in the International Students program. It provides English language learners with formalized instruction and skills development in listening, speaking, reading comprehension and writing in English. Vocabulary development and grammar instruction that supports academic writing skills will be emphasized. **Requirements:** quizzes, writing assignments, oral presentations. **Text:** TBD. 1 credit.

**358 ESL II – ENGLISH AS A SECOND LANGUAGE LEVEL 2**

This course is open to and required of all students in the International Students program. It continues the formalized instruction and skills development in listening, speaking, reading comprehension and writing in English begun in ESL I. Vocabulary development and grammar instruction that supports academic reading and writing skills will be emphasized. **Requirements:** quizzes, writing assignments, oral presentations. **Text:** TBD. 1 credit.

**362 ITALIAN II**

This course continues the study of the Italian Language through development of the four basic skills: listening, speaking, reading and writing. Greater emphasis is placed on active performance of speaking and writing. Students will continue their study of Italian grammar and contemporary Italian culture, traditions and civilization through the ages. **Requirements:** daily homework, weekly quizzes, dictations, chapter tests and Project Based Learning assessments. **Texts:** *Prego! An Invitation to Italian, 8th edition* (MSDE text provided ), workbook & lab manual, *Italiano Essenziale 2*, Italian-English dictionary.

### 363 ITALIAN II (Honors)

This course continues the study of the Italian Language through development of the four basic skills: listening, speaking, reading and writing. Greater emphasis is placed on active performance of speaking and writing. Students will continue their study of Italian grammar and contemporary Italian culture, traditions and civilization through the ages. Placement in the honors program is based on testing, prior academic performance or a grade of “B” or higher in Italian 1 Honors. **Requirements:** daily homework, weekly quizzes, dictations, chapter tests and Project Based Learning assessments. **Texts:** *Prego! An Invitation to Italian, 8th edition* (MSDE text provided), workbook & lab manual, *Italiano Essenziale 2*, Italian-English dictionary. 1 credit

### 364 ITALIAN III (Honors)

Open to all students who have completed Italian II Honors with a grade of “B” or higher and the recommendation of the teacher. This course is for those who wish to study in-depth the history and culture of Italy in the linguistic context, make interdisciplinary combinations with Italian language and culture, and pursue advanced Italian Studies here and abroad. Students will continue to develop the four language skills with emphasis on oral and written proficiency at the intermediate and advanced levels, a comprehensive grammar review, and historical, cultural and literary readings and media. The content will include the history of Italy, culture and listening, speaking, reading and writing. The emphasis is on speaking while the arts, scientific and technical contributions, the 20th century war experience and the Italian-American experience. **Requirements:** daily homework, weekly quizzes, writing summaries and translations, 2-3 tests per quarter, oral class participation, outside reading of historical, cultural and literary texts and the National Italian Exam. **Texts:** *Prego!*; *Mosaici*; *Italiano Essenziale 3*, Italian-English dictionary. 1 credit

### 365 ITALIAN III

Open to all students who have completed Italian II with a grade of “B” or higher and the recommendation of the teacher. This course is for those who wish to study the history and culture of Italy in the linguistic context. Students will continue to develop the four language skills with emphasis on oral and written proficiency at the intermediate and advanced levels, a comprehensive grammar review, and historical, cultural and literary readings and media. The content will include the history of Italy, culture and the arts, scientific and technical contributions, the 20th century war experience and the Italian-American experience. **Requirements:** daily homework, weekly quizzes, writing summaries and translations, 2-3 tests per quarter, oral class participation, outside reading of historical, cultural and literary texts, and the National Italian Exam. **Texts:** *Prego!*; *Mosaici*; *Italiano Essenziale 3*, Italian-English dictionary. 1 credit

### 366 ITALIAN IV (Honors)

Open to all students who have completed Italian III Honors or College Preparatory track with a grade of “B” or higher, or the recommendation of the teacher. Students will continue to develop the four language skills with emphasis on oral proficiency at the intermediate and advanced levels, advanced reading proficiency of historical and cultural works, and study through the media. Study will include focus on 19th century through contemporary culture. **Requirements:** daily homework, writings of summaries and compositions, weekly quizzes, dictation, lecture notes and several tests per quarter, project-based and performance-based assessments, oral class participation, outside reading of French literature and the National Italian High School Contest Examination. The SAT II Italian exam is also highly recommended. **Texts:** Selected novels, short stories, poetry & film, *Superciaoi.it*. *Corso di lingua italiana per la scuola superiore*. 3. (Editrice La Scuola), *Ace the AP Italian Language and Culture Exam* (Edizioni Farinelli), *Schaum’s Outline of Italian Vocabulary*, *Schaum’s Outline of Italian Grammar* (McGraw-Hill), *Italian, English Dictionary*. 1 credit

### 367 ADVANCED PLACEMENT (AP) ITALIAN LANGUAGE AND CULTURE

Open to all students who have completed Italian III Honors with a grade of “B” or higher, the recommendation of the current teacher, the AP teacher, the Department Chair, and an evaluation of performance on the National Italian High School Contest Examination. Students

will continue to develop the four language skills with emphasis on oral proficiency at the intermediate and advanced levels, advanced reading proficiency of historical and cultural works. Study will include focus on 19<sup>th</sup> & 20<sup>th</sup> centuries, and contemporary culture. **Requirements:** daily homework, writings of summaries and compositions, weekly quizzes, dictation, lecture notes and several tests per quarter, oral class participation, outside reading of Italian literature, project-based and performance-based assessments, National Italian High School Contest Examination, and the AP Italian exam. **Texts:** Selected novels and poetry, *TBD*, Italian-English dictionary. 1 credit.

## **MATHEMATICS**

*All math texts are provided by Maryland State Dept. of Education (on loan)*

### **410 ADVANCED HONORS GEOMETRY/ALGEBRA II**

Open to freshmen; qualifying test; departmental approval. This course is for those students who validate the successful completion of an elementary school course in Algebra I by a qualifying test. A full course in Geometry will be taught during the first three quarters. Topics covered include methods of proof, direct and indirect, relationships involving angles and lines, congruency, proportions and similarity, right triangle relationships, circles, polygons, constructions, areas, volumes, logic and coordinate geometry. In the fourth quarter; the students will be introduced to Algebra II. Topics covered include properties of the real number system, equations, polynomials, inequalities, absolute value, functions and graphs, systems of linear equations and inequalities, factoring and polynomial equations. **Requirements:** homework, tests, quizzes, projects. TI 83+ or 84 series graphing calculator. **Texts:** (MSDE texts provided) *Geometry* by Carter, Cuevas, et al. Glencoe McGraw-Hill 2010 and *Algebra 2* by Carter, Cuevas, et al. Glencoe McGraw-Hill 2010. (Electronic option available) 1 credit.

### **411 ALGEBRA I (Honors)**

Open to freshmen. This course is for those students who have completed many of the topics in algebra as demonstrated on the algebra I qualifying test and who have done consistently well in the study of arithmetic and mathematics. The course of study will develop in depth the areas of algebra previously studied, investigate new algebraic topics, and will develop those algebraic skills necessary for the advanced study of mathematics. The student should be acquainted with the following topics: the solving of simple linear equations, signed numbers, addition, subtraction and multiplication of polynomials, evaluation of algebraic expressions, elementary factoring and formulas. **Requirements:** homework, tests, quizzes, TI 83+ or 84 series calculator. **Text:** (MSDE text provided) *Algebra: Algebra 1* by Carter, Cuevas, et al. Glencoe McGraw-Hill 2010. (Electronic option available) 1 credit.

### **412 ALGEBRA I**

Open to freshmen. This course introduces the student to elementary topics, basic structures, concepts and skills of higher mathematics. Topics include: sets, elementary properties of the real number system, positive and negative numbers, simple 1st degree equations, polynomials, simple factoring, graphing on the number line and coordinate plane, equations and inequalities with 2 variables and radicals. This course is designed for students who have achieved moderate success in the study of arithmetic and mathematics. **Requirements:** homework, tests, quizzes, TI 83+ or 84 series calculator. **Text:** (MSDE text provided) *Algebra 1* by Carter, Cuevas, et al. Glencoe McGraw-Hill 2010. (Electronic option available) 1 credit.

### **413 ALGEBRA I (teacher's approval)**

Open to freshmen. Departmental approval. This course is designed for students who have had some difficulty in the study of arithmetic and mathematics. This course introduces the student to the elementary basic structures, concepts and skills of higher mathematics. Topics include: positive and negative numbers, simple 1st degree equations, polynomials, graphing and simple factoring. The pace of this course is slower than that of 412 although most of the topics covered are the same. **Requirements:** homework, tests, quizzes, TI 83+ or 84 series calculator. **Text:** (MSDE text provided) *Algebra 1* by Carter, Cuevas, et al. Glencoe McGraw-Hill 2010. (Electronic option available) 1 credit.

#### 420 HONORS ALGEBRA II/TRIGONOMETRY

Only open to those who have completed Advanced Honors Geometry/Algebra II (410) with grade of B or better; or freshmen enrolled in the STEM program and departmental approval. This course continues the study of Algebra II, includes a full course in trigonometry, and continues with mathematical analysis in preparation for the future study of Calculus. Elementary functions, i.e., polynomial, rational, exponential, logarithmic and trigonometric functions, their properties and graphs are studied in detail. Other topics include factoring, rational expressions, complex numbers, polar coordinates, laws of sines and cosines, sequences and series, and matrices. The major thrust of the course is an analytical approach to problem solving with some emphasis on theoretical investigations of solutions. **Requirements:** homework, tests, quizzes, projects. A TI 83+ or 84 series calculator. **Text:** (MSDE texts provided) *Algebra 2* by Carter, Cuevas, et al. Glencoe McGraw-Hill 2010 (Electronic option available) and *Precalculus*, Carter, Cuevas, et al Glencoe McGraw-Hill 2011. 1 credit

#### 421 HONORS GEOMETRY

Open to those who have completed 411 with a grade of B or better, and to those with a C only with the current teacher's recommendation and department approval or 412 with teacher recommendation and departmental approval. This course introduces the student to topics in geometry with special emphasis on formal proof. This course is designed for those students who have done consistently well in their study of mathematics. Topics covered include: methods of proof, both direct and indirect, relationships involving angles and lines, logic, congruency, similarity, right triangle relationships, circles, areas and volumes, constructions, coordinate geometry and transformations. The course will also explore the use of algebra and geometry in problems similar to those found on the PSAT & SAT. **Requirements:** homework, tests, quizzes, projects. TI 83+ or 84 series calculator. **Text:** (MSDE text provided) **Geometry** by Carter, Cuevas, et al. Glencoe McGraw-Hill 2010. "Gruber's complete preparation for the new SAT (10<sup>th</sup> Edition)" (Electronic option available) 1 credit.

#### 422 GEOMETRY

Open to those who have completed 411 or 412. The pace of this course is somewhat slower than that of 421 and is designed for the student who has achieved moderate success in the study of mathematics. Topics covered include: methods of proof, both direct and indirect, relationships involving angles and lines, congruency, similarity, right triangle relationships and circles. The course will also explore the use of algebra and geometry in problems similar to those found on the PSAT & SAT. **Requirements:** homework, tests, quizzes. TI 83+ or 84 series calculator. **Text:** (MSDE text provided) *Geometry* by Carter, Cuevas, et al. Glencoe McGraw-Hill 2010. "Gruber's complete preparation for the new SAT (10<sup>th</sup> Edition)" (Electronic option available) 1 credit.

#### 423 GEOMETRY (teacher's approved)

Open to those who have completed 413. Open to those who have completed 412 with departmental approval. This course is designed for students who have had some difficulty in the study of mathematics. This course introduces the student to the elementary topics of geometry, including methods of proof, relationships involving angles and lines, congruency, similarity, right triangle relationships, circles and constructions. The course will also explore the use of algebra and geometry in problems similar to those found on the PSAT & SAT. **Requirements:** homework, tests, quizzes. TI 83+ or 84 series calculator. **Text:** (MSDE text provided) *Geometry, Concepts and Skills*, by Larson, Boswell and Stiff. Holt McDougal 2010. (Electronic option available) 1 credit.

#### 431 HONORS ALGEBRA II

Open to those who have completed 411 and 421 with grades of B or better and those with a C only with the current teacher's recommendation and department approval. This course continues the study of algebra. The pace of the course is rapid and is designed for those students who have done consistently well in the study of mathematics. Topics include: the real number system, solutions of 1st, 2nd and higher degree equations, inequalities, relations, functions and their graphs, factoring, rational expressions, logarithms, complex numbers, sequences and series. The course is designed to prepare students to take higher level mathematics courses. **Requirements:** homework, tests, quizzes, projects. A TI 83+ or 84 series calculator.

**Text:** (MSDE text provided) *Algebra 2* by Carter, Cuevas, et al. Glencoe McGraw-Hill 2010. (Electronic option available) 1 credit.

#### **432 ALGEBRA II**

Open to those students who have completed 421 or 422. The pace of this course is somewhat slower than that of 431 and is designed for the student who has achieved moderate success in the study of mathematics. Topics include: real number system, solutions of 1st, 2nd and high degree equations, inequalities, complex numbers and logarithms. **Requirements:** homework, texts, quizzes a TI 83+ or 84 series calculator required. **Text:** (MSDE text provided) *Algebra 2* by Carter, Cuevas, et al. Glencoe McGraw-Hill 2010. (Electronic option available) 1 credit

#### **433 ALGEBRA II (teacher's approval)**

Open to those who have completed 413 and 423. This course is designed for those students who continue to have some difficulty in mathematics. The course will continue the study of algebra. Topics covered include: the real number system, solutions of 1st, 2nd and higher degree equations, inequalities, functions, relations and their graphs, factoring, rational expressions, and radicals. **Requirements:** homework, tests, quizzes. A TI 83+ or 84 series calculator. **Text:** (MSDE text) *Algebra 2* by Carter, Cuevas, et al. Glencoe McGraw-Hill 2010. (Electronic option available) 1 credit.

#### **439 ADVANCED PLACEMENT (AP) CALCULUS AB**

Open to students with departmental approval only. Students must have completed Honors Algebra II/Trigonometry (420), Honors Trigonometry/Analysis (441) or Honors Calculus I (451) with a grade of B or above. AP Calculus AB is equivalent to a first semester college course devoted to topics in differential and integral calculus. The class proceeds with more pace and rigor than course 451 Honors Calculus I. Qualified students who meet with departmental approval can take AP Calculus AB as a first year calculus course; it may be recommended that students complete course 451 prior to taking this class. AP Calculus AB is a prerequisite for AP Calculus BC (440). The course covers topics including concepts and applications of limits, derivatives, definite integrals and the Fundamental Theorem of the Calculus. The course challenges students to solve problems when they are represented graphically, numerically, analytically and verbally, and to make connections among those representations. Students incorporate technological aids to help solve problems, experiment, interpret results and support conclusions. **Requirements:** homework, tests, quizzes. A TI 83+ or 84 series calculator is also required. **Text:** MSDE provided *Calculus: Stewart, James*, 8<sup>th</sup> edition, 2015. 1 credit.

#### **440 ADVANCED PLACEMENT (AP) CALCULUS BC**

Open to those who have completed Honors Calculus with Analysis (430) with grades of B or higher, departmental approval. This course continues the student's preparation for the taking of an AP Calculus test in May. The course covers differentiation and integration and their applications, vector analysis, and infinite series. The course is comparable to a college level course, and students **must** take the AP exam for an additional fee. **Requirements:** homework, tests, quizzes, AP Calculus exam in May. A TI 83+ or 84 series calculator is required. **Text:** (MSDE text provided) *Calculus: Larson Hostetler* 6th Edition, 1998. 1 credit.

#### **441 HONORS TRIGONOMETRY/ANALYSIS**

Open to those who have completed Honors Algebra II, (431) grades of B or better, and to those with a C only with the current teacher's recommendation and department approval. This course begins the study of mathematics that thoroughly combines algebra and geometry in preparation for the future study of Calculus. In addition to a complete course in trigonometry, topics from mathematical analysis will be covered. Elementary functions, i.e., polynomial, rational, exponential, logarithmic and trigonometric functions, their properties and graphs are studied in detail. Other topics include polar coordinates, sequences and series, and matrices. The major thrust of the course is an analytical approach to problem solving with some emphasis on theoretical investigations of solutions. **Requirements:** homework, tests, quizzes, projects. A TI 83+ or 84 series calculator required. **Text:** (MSDE text provided) *Precalculus*, Carter, Cuevas, et al Glencoe McGraw-Hill 2011. 1 credit

#### 442 TRIGONOMETRY/ANALYSIS

Open to those who have completed Algebra I, Geometry and Algebra II. This course is designed for students who have achieved moderate success in the study of mathematics. It is a full year course in which the major topics of analysis will be taught in the first semester, and a complete course in trigonometry will be included during the second semester. Topics include: the fundamental definitions of the trigonometric functions, solutions of right triangles, laws of sines and cosines, fundamental identities, arc length, graphing elementary functions and logarithms, exponential functions, series and conics. **Requirements:** homework, tests, quizzes. A TI 83+ or 84 series calculator required. **Text:** *College Algebra with Trigonometry*, 7<sup>th</sup> Edition; Barnett et al; McGraw Hill, 2001. 1 credit

#### 443 INTRODUCTION TO COLLEGE ALGEBRA

This course is open to those who continue to have some difficulty in the study of Mathematics and have completed course 433 (or course 432 with a C or lower). The student's complete record in Mathematics will be reviewed prior to permission being granted to take this course. Specific permission of the Math Department Chairperson is required. This course is designed to prepare students for introductory level college mathematics. It will continue the study of algebra and geometry and introduce topics in statistics and college algebra. It will be taught with an emphasis on applications of mathematics. Topics include graphing and solving linear, quadratic and higher order functions, exponential and logarithmic functions, and systems of equations. Direct and inverse variation, topics in right triangle trigonometry and probability and statistics are also included. **Requirements:** Homework, quizzes, tests and projects and presentations, a TI 83+ or TI 84 series calculator required. **Text:** (MSDE text provided) *Fundamentals of Algebraic Modeling*, Timmons, Johnson & McCook. Brooks/Cole 2006. 1 credit.

#### 444 TRIGONOMETRY - Original Credit/Summer School

*This class meets in Summer School.* Open to those who have completed Algebra I, Geometry and Algebra II, and who seek to accelerate their study of mathematics and who seek advancement into higher math courses. The content of the course is roughly equivalent to course 442. Students will be required to complete some self-taught take-home work prior to the beginning of summer school. Text: will be provided. 1 credit.

#### 450 ADVANCED PLACEMENT (AP) STATISTICS

Open to juniors and seniors who have completed at least Honors Algebra II with a B or above; departmental approval required. The course is equivalent to an introductory, non-calculus-based college course in statistics. The topics covered will follow closely the AP Statistics course description published by the College Board: exploratory analysis of data, planning and conducting a study, anticipating patterns with probability, and statistical inference. Students enrolled in the course must take the AP Statistics exam in May for an additional fee. For students who plan to take calculus in college, AP Statistics should **NOT** be substituted for the Trigonometry/Analysis course; however, it may be taken concurrently with Trigonometry/Analysis. **Requirements:** homework, tests, quizzes, projects. A TI 83+ or TI 84 series calculator or App required. **Text:** (MSDE text provided) *Stats: Modeling the World*. Bock, Velleman, DeVeaux. 2<sup>nd</sup> edition, 2007. 1 credit.

#### 451 HONORS CALCULUS I

Open to students who have completed 441 (Honors Trigonometry/Analysis) or 420 (Honors Algebra II/Trigonometry) with grades of C or better. As a course in introductory calculus with elementary functions, it is intended for students who have a thorough knowledge of college preparatory mathematics but who are not seeking or have not been recommended for the Advanced Placement Calculus AB course (439). Some students may take this course in a year prior to enrolling in course 439. The class includes the study of functions, limits and continuity, differentiation and applications of the derivative, integration and selected applications of the integral. **Requirements:** homework, tests, quizzes. A TI 83+ or 84 series calculator is required. **Text:** (MSDE text provided) *Calculus: Stewart, James* 8<sup>th</sup> edition, 2015. 1 credit

**455 APPLIED CALCULUS (teacher's approval)**

Open to those who have completed course 442 Trigonometry/Analysis. This course is designed for students who have achieved moderate success in the study of mathematics. The course is designed as an intuitive introduction to the principal ideas of differential and integral calculus. Among the topics covered are: functions (including exponential and logarithmic), limits, differentiation, and integration. Emphasis will be placed upon the use of calculus in solving problems from areas including business, economics, and the social and natural science. **Requirements:** Homework, quizzes, tests, and projects. A TI 83+ or 84 series calculator or App required. **Text:** (MSDE text provided) *Calculus with Applications* by Greenwell, Lial, and Ritchey Pearson 2012 10th edition. 1 credit

**462 HONORS MULTIVARIABLE CALCULUS**

Only open to those who have completed Advanced Placement (AP) Calculus BC. Grade of B or better and department approval required. This course focuses on applications and extensions of topics covered in AP Calculus BC as well as preparing students for their uses and applications in mathematics. This is a first course in differential and integral calculus of functions of several variables. Topics include vector algebra, vector functions and their geometric interpretation, partial and directional derivatives of multivariable functions, optimization using derivatives and Lagrange multipliers, multiple integrals in different coordinate systems with applications to computation of area, volume, and surface area. **Requirements:** homework, tests, quizzes, labs. A TI 83+ or 84 series calculator or App required. **Text:** (MSDE text provided) *TBD* 1 credit.

**498 GEOMETRY - Original Credit/Summer School**

*This class meets in Summer School.* Open to those who have completed Algebra I, and who seek to accelerate their study of mathematics and who seek advancement into higher math courses. The content of the course is roughly equivalent to course 422. **Text:** will be provided. 1 credit.

**SCIENCE**

**510 CHEMISTRY (teacher's approval)**

Open to those students who took course 413 or who may not meet the prerequisites of course 535; teacher approval is required. This class is an introductory course designed to familiarize students with the fundamental principles of chemistry. The class emphasizes both scientific content and the development of skills utilized in scientific investigation and inquiry. Basic algebraic skills are reviewed and their application is required. Topics covered in the course include the classification of matter & elements, compounds and mixtures, formulas, chemical reactions, atomic structure, ionic & covalent bonding, states of matter, the periodic table, solutions, acids & bases, intermolecular forces and nuclear energy. **Requirements:** tests, quizzes, homework. **Text:** *Person Chemistry: Wilbraham, Staley, Matta and Waterman 2012*, Pearson Chemistry skills & Math Workbook. 1 credit.

**520 BIOLOGY**

Open to freshmen. This course is a vast survey of living things, their processes, components and mechanisms. It begins at the cellular/molecular level and goes on to consider the systems of the human body. Units on Genetics/DNA, classification of organisms, ecology, and evolution are also covered. Hands-on laboratory exercises in each unit emphasize the discovery process. **Requirements:** 3-4 quarterly tests, frequent quizzes, daily homework and a lab report for each unit. **Text:** *Miller & Levine Biology*, 2010 (iBook) 1 credit

**526 HONORS BIOLOGY**

Open to freshmen with departmental approval. This survey course is designed for the student who intends to enroll later in Honors Chemistry, Honors Physics and AP science classes. Honors Biology proceeds more quickly than Biology (520), exceeding this course in breadth and depth. Topics of study include the chemistry of life, cell structure and function, patterns of inheritance, molecular genetics and biotechnology, evolution, comparative and human

anatomy/physiology, and ecology. An emphasis will be placed on extending topics beyond textbook material, including reading from other sources. Tests emphasize critical thinking and interpretive skills in addition to recall of course material. **Requirements:** 3-4 tests and 3-4 labs per quarter, written and reading homework, lab reports. Research paper required. Science Fair Project highly recommended. **Text:** *Miller & Levine Biology*, 2010 (iBook) 1 credit

### **530 HONORS CHEMISTRY**

Open to those students who have completed Honors Geometry/Algebra II (courses 410, 420, 421, 431) with a grade of B or higher and with departmental approval. Open also to those students who have completed Honors Algebra I (a grade of A, both semesters), with department approval. Each student who applies from Honors Algebra I (411) will be considered on an individual basis. This course is designed for those students whose mathematical skills place them in an honors track and who intend to enroll in further AP and Honors science courses. Topics covered are: fundamentals of chemical reactions, stoichiometry, atomic structure, states of matter, chemical bonding, chemical equilibrium, acid/bases and other topics. This course moves at a faster pace, covers more material, and incorporates more mathematics than chemistry 535. **Requirements:** 3-4 tests per quarter; 2-4 labs per quarter; assigned readings, science fair project, a graphical calculator is required. **Texts:** *Pearson Chemistry: Wilbraham, Staley, Matta and Waterman* 2012. *Mini-Guide to Problem Solving*, Holt, Rinehart, Winston. 1 credit

### **535 CHEMISTRY (College Prep)**

Open to those students who have completed both Algebra and Biology with a grade of C or higher. Students need to know the basic principles of Algebra I. This course covers the major topics of an introductory chemistry course geared toward the average ability student. Descriptive chemistry, chemical formulae and reactions, stoichiometry, atomic structure, gas laws, bonding, acid/bases and other current topics are covered. Lab exercises are designed to be hands-on experiences to help students understand many of the topics discussed in class. **Requirements:** 3-4 test per quarter, regular quizzes per cycle, labs, and a scientific calculator is required. **Text:** *Pearson Chemistry: Wilbraham, Staley, Matta and Waterman* 2012. 1 credit

### **536 ENVIRONMENTAL SCIENCE**

Open to juniors and seniors. This course is an introductory course about the world around us. This course will use a Problem/Project based learning format which engages students in real world activities. Students will actively try to solve problems and answer questions about the ecosystems around them. Technology such as iPads will enhance students' abilities to study our world, but they will also use hands on, non-digital methods, too. Most work is done in teams and grades come mainly from projects and presentations of information. Students will learn to think critically, express ideas clearly, present results, and work collaboratively. Topics include: biomes, biological relationships, urban ecology, electricity generation, alternative energy, dendrology, endangered species, extinct species, and water quality with a focus on the Chesapeake Bay. **Requirements:** group and individual projects and reports, class assignments, current event presentation and Project Noah assignments. No Text Required. 1 credit.

### **537 ADVANCED PLACEMENT (AP) ENVIRONMENTAL SCIENCE**

Open to juniors and seniors who have successfully completed HONORS science courses. Departmental approval (which is based on grades, PSAT scores and teacher recommendation) is also required. This course is a detailed study of human interactions with nature and the results of those interactions. It is designed for students with a strong science background and a keen interest in the subject. Specific topics include: energy flow, the Earth's geologic history, human population growth, resources, and problems concerning the atmosphere, land, and water. Students will participate in laboratories and group discussions. Students are required to keep a field notebook. It is expected that students think critically as well as develop and defend their opinions. **Requirements:** tests, labs, field notebook, quizzes, and AP Exam in May. **Text:** (MSDE text provided) *Cracking the Environmental Science Exam*, Princeton Review, *Sokkia Field Book*. (sold in school store) 1 credit

**540 HONORS PHYSICS WITH APPLICATIONS TO ENGINEERING**

Open to juniors and seniors who have completed Honors Algebra II (431 or 420) with a grade of “B” or higher, and/or who receive department approval. Open also to students who have completed Algebra II (432) with a grade of “A” and who receive department approval. This course is an introductory course with an emphasis on the combined disciplines of physics, engineering and mathematics. A special effort will be made to integrate the principles of physics and mathematics with different engineering fields in such areas as motion, forces, momentum, energy, work, simple machines, pressure, sound, fluid dynamics, electricity, magnetism, optics, relativity and introductory quantum theory.. **Requirements:** 3 tests, 6 quizzes and 3 labs per quarter. **Text:** *Physics: Cutnell & Johnson*, 8th edition, 2009. 1 credit

**545 CONCEPTUAL PHYSICS**

Open to juniors and seniors who have completed Algebra II (grade C or higher). This course is not intended for students who plan to major in engineering or pursue a science major in college. In this introductory physics course, the mathematical structure is used to show the relationships among ideas and concepts. The topics to be studied include: the physics of motion, mechanics, energy, waves, light, electricity and magnetism. Students should have a good understanding of Algebra II. **Requirements:** quizzes, tests, projects and homework. **Text:** *How Things Work*, Louis A. Bloomfield, 4<sup>th</sup> edition, 2010 1 credit.

**550 ADVANCED PLACEMENT (AP) BIOLOGY**

Open to juniors and seniors who have completed Biology and Honors Chemistry (B or higher); AP chemistry is recommended; department approval is required. This course is a rigorous, comprehensive, year-long, college-level biology course. It is designed for students with a strong science background who may be interested in further scientific or pre-med study in college. The course covers topics in the chemistry of life, cells, cellular energetics, heredity, molecular genetics, evolutionary biology, the diversity of organisms, the structure and function of plants and animals, and ecology. **Requirements:** in-depth text reading, unit tests, quizzes, inquiry-based labs. **Texts:** (MSDE text provided) *Campbell: Biology in Focus* and *AP Biology Lab Manual*. 1 credit

**555 ADVANCED PLACEMENT (AP) CHEMISTRY**

Open to those students who have successfully completed Honors Chemistry (grade of A) and Honors Algebra II (grade of B or higher) and with departmental approval. This is a college-paced course designed to provide the student with an in-depth study of chemical reactions, molecular structures, equilibrium, kinetics, acid/base chemistry, electrochemistry and thermodynamics. This is a college freshman chemistry course. Students who enroll in this course should be interested in science and would probably major in some scientific field in college. The AP Chemistry examination must be taken in May. There is a two-hour laboratory session every week after school. Students are excused if there is an interscholastic game, but not for practice. **Text:** (MSDE Text provided) *Chemistry*, Chang, McGraw-Hill, 10<sup>th</sup> edition, Student Lab Notebook, Hayden-McNeil and graphical calculator. 1 credit.

**560 ADVANCED PLACEMENT (AP) PHYSICS “C”**

Open to those who have completed Honors Physics (grade of A), and have completed an introductory course in calculus, and/or have departmental approval. The AP Physics “C” course is divided into two parts, mechanics and electromagnetic theory. Mechanics is an in depth study of the following areas: particle and rotational kinematics, particle and rotational dynamics, conservation of momentum, conservation of energy, potential energy wells, simple harmonic oscillators, and gravitation. Electromagnetic Theory is an in-depth study of electric potential, electric fields, circuit analysis, magnetic field theory and electromagnetic induction. Methods of calculus are used when appropriate to formulate physical principles and apply them to physical problems. Students must take an AP exam in mechanics and an AP exam in electromagnetic theory. **Requirements:** 3 tests and 9 quizzes per quarter and a notebook of all assigned problems are also turned in each quarter. **Requirements:** 3 test and 9 quizzes per quarter and a notebook of all assigned problems is also turned in each quarter. **Texts:** *Fundamentals of Physics*, 9<sup>th</sup> Edition. by Halliday, Resnick, and Walker 1 credit.

#### **564 HONORS ANATOMY AND PHYSIOLOGY**

Open to juniors and seniors who have completed both Biology and Chemistry with a grade of “B” or higher, and have department approval. Designed for the student with an interest in the course that may include aspirations for further study in health and nutritional fields, including athletic training, physical therapy, EMT services, or medicine. The topics covered in this course will be similar to those covered in the Anatomy and Physiology 565 course. However, class will proceed with more depth. **Requirements:** quizzes, 3 labs per quarter, 2 mini research papers and homework. **Text:** *Essentials of Human Anatomy and Physiology*, Elaine N. Marie, 8<sup>th</sup> edition. (MSDE Text provided ) and accompanying workbook. 1 credit

#### **565 ANATOMY AND PHYSIOLOGY**

This course is a junior/senior elective. It is designed and intended to give students an in-depth look at the human body from a basic cellular level to gross anatomy of entire systems, so as to promote a deeper understanding of human health. Any student with career intentions in the allied health fields or sports medicine should find this material valuable in preparing for college work. Specific emphasis of body function in athletics is a point of focus in this course. **Requirements:** Tests for each chapter, Labs to include dissections of animal parts, Projects (posters, models). Participation, Homework. **Texts:** Shier, Butler, Lewis, *Hole’s Essentials of Human Anatomy and Physiology*, 10<sup>th</sup> edition. 1 credit.

#### **571 HONORS GENETICS AND BIOTECHNOLOGY**

Open to juniors and seniors who have completed both Biology and Chemistry with a grade of “B” or higher. Designed for students with a strong background in science and a keen interest in the subject. This course is designed as an extension of the classical genetics learned in introductory (freshman) biology class. In particular, the course will introduce advanced concepts in DNA science, which students will explore through discussion, problem-solving, and laboratory exercises that involve the tools and techniques of biotechnology. Topics to be covered in both lecture and lab include cell structure and reproduction, Mendelian genetics, the chromosomal basis of heredity, the molecular details of DNA replication, transcription & translation, regulations of gene expression, the genetics of cancer, gene cloning and recombinant DNA technology and the Human Genome Project and its applications.. While exposed to the techniques of biotechnology, students will also be challenged to discuss and write critically on bioethical issues as well. **Requirements:** 3-4 test per quarter, 3-4 labs per quarter, 1 research paper and oral presentation, supplemental reading, homework. **Text:** *Human Genetics Concepts & Application*, 10<sup>th</sup> edition, by Ricki Lewis. (MSDE text provided) 1 credit.

### **SOCIAL STUDIES**

#### **600 GLOBAL HISTORY to 1945 (Honors)**

Required for freshmen, this course covers world history from the beginnings of the universe to the 20<sup>th</sup> century, answering essential questions based on the major themes of historical change, continuity, global connections, and increasing complexity in the great civilizations of Afroeurasia, the Americas, and Australasia. Particular emphasis is placed the understanding of the discipline of history and on the development of historical thinking skills, including causation, periodization, interpretation, and crafting historical arguments. Students will read and analyze primary sources understanding multiple perspectives, contextualization, and corroboration. Students in honors will participate in class discussions, complete inquiry research projects, complete extensive reading and writing activities, and are required to complete a National History Day project. **Requirements:** Written and performance-based assessments, essays and projects. **Texts:** *World History – Patterns of Interaction* and *A Compact History of Humankind*. (digital options available) 1 credit

#### **601 GLOBAL HISTORY to 1945 (College Prep)**

Required for freshmen, this course covers world history from the beginnings of the universe to the 20<sup>th</sup> century, answering essential questions based on the major themes of historical change, continuity, global connections, and increasing complexity in the great civilizations of Afroeurasia, the Americas, and Australasia. Particular emphasis is placed on the understanding of the discipline of history and the development of historical thinking skills, including causation,

periodization, interpretation, and crafting historical arguments. Students will read and analyze primary sources understanding multiple perspectives, contextualization, and corroboration; Students will participate in class discussions, complete inquiry research projects, and will have the option of completing a National History Day project. **Requirements:** Written and performance-based assessments, essays and projects. **Texts:** *World History – Patterns of Interaction* and *A Compact History of Humankind*. (digital options available) 1 credit

**620 UNITED STATES HISTORY to 1945 (Honors)**

Required for sophomores. This course will introduce students to study of American History from the colonial period to the 20<sup>th</sup> century. Topics will include growth and development of the colonies, goals and conflicts of natives, slaves, and immigrants, the establishment of the new nation and American identity, Jacksonian democracy, the Civil War, Reconstruction, the World Wars and Depression, and the social changes in the US in the 20<sup>th</sup> century. Students will use inquiry and problem-based methods to investigate various topics using the Historical Inquiry Method. Emphasis is placed on the critical analysis of primary sources and the process of historical research. **Requirements:** Written and performance-based assessments, essays and projects. All students are required to complete a National History Day Project. **Texts:** *Give Me Liberty! – An American*, and various texts required by the teacher. (digital options available) 1 credit

**622 UNITED STATES HISTORY to 1945 (College Prep)**

Required for sophomores. This course will introduce students to study of American History from the colonial period to the 20<sup>th</sup> century. Topics will include growth and development of the colonies, goals and conflicts of natives, slaves, and immigrants, the establishment of the new nation and American identity, Jacksonian democracy, the Civil War, Reconstruction, the World Wars and Depression, and the social changes in the US in the 20<sup>th</sup> century. Students will use inquiry and problem-based methods to investigate various topics using the Historical Inquiry Method. Emphasis is placed on the critical analysis of primary sources and the process of historical research. **Requirements:** Written and performance-based assessments, essays and projects. All students are required to complete a National History Day Project. **Texts:** *The Americans*, (MSDE text provided) (digital options available) and various texts required by the teacher. 1 credit

**636 MODERN AMERICA, 1945 TO THE PRESENT (Honors) – Original Credit/Summer School**

*This class meets in Summer School.* Open to rising juniors and seniors who seek to accelerate their study in the field of social studies, and who obtain department approval. The content of the course is roughly equivalent to course 673. **Text:** *The Making of Modern America*. 1 credit.

**644 AMERICAN GOVERNMENT**

Open to seniors. The purpose of this course is threefold: 1) to present to the students the basic frame work of our federal system, i.e., the Constitution and the functions of the legislative, executive, and judicial branches; 2) to make students aware of their civil liberties and their rights and obligations as citizens; 3) to analyze and evaluate government policies on current issues. **Requirements:** Tests, quizzes, research assignments, essays, class participation and homework. **Text:** *Magruder’s American Government* 2006. 1 credit.

**645 ADVANCED PLACEMENT (AP) AMERICAN GOVERNMENT**

Open to seniors who have demonstrated a thorough knowledge of U.S. History; department approval. Students will conduct an in-depth study of American government and politics. Major topics will include the structure and operation of the federal government under the Constitution, important Supreme Court decisions, and practical politics. Students are expected to take the AP exam in May. **Requirements:** tests, extensive essay writing and homework. **Text:** *Government By The People*, 21<sup>st</sup> ed. 1credit.

**646 ADVANCED PLACEMENT (AP) UNITED STATES HISTORY**

Open to sophomores, juniors and seniors with department approval. This course will make demands on students that are equivalent to those of an introductory college course.

Students will be expected to learn how to read historical evidence and interpretations and to arrive at conclusions on the basis of informed judgment. The course deals with United States history from the era of the Revolution to the Nixon years and after. Students are expected to take the AP exam in May. **Requirements:** tests, extensive essay writing, debates and homework. **Text:** *The American Pageant*. (digital options available) 1 credit.

#### **655 ADVANCED PLACEMENT (AP) PSYCHOLOGY**

Open to juniors and seniors who have completed Biology and Chemistry and receive department approval. This course is an in depth, college level study of the field of psychology. Students not only will learn the basic principles relevant to an understanding of the science of the mind and human behavior but also examine the history, theory, and practical applications of psychology. Perceptions, motivations, learning, personality development, abnormal behavior, intelligence, biological and environmental influences, and stress are a few of the topics covered throughout the year. Students are expected to take the AP exam in May. **Requirements:** In-depth text reading, tests, reports, written homework assignments and outside research. **Text:** *Myers Psychology*. 1 credit

#### **656 ADVANCED PLACEMENT (AP) HUMAN GEOGRAPHY**

Open to juniors and seniors with department approval. Fulfills Social Studies requirement for juniors; available to seniors as an elective. This year-long course will focus on the topics found in an introductory college human geography course. Following the guidelines of the College Board's AP Human Geography syllabus, students will study various aspects of spatial concepts relating to geography, landscape analysis, human socioeconomic organization and its impact on the environment. Skills emphasized in the course include interpreting maps and analyzing geospatial data, analyzing changing interconnections among places, and interpreting the relationship among patterns and processes at different scales of analysis. Major topics covered include population & migration, cultural patterns & processes, the political organization of space, agriculture & food production/rural land use, industrialization & economic development, and cities & urban land use. **Requirements:** extensive essay writing will be an important component of the course and students will be expected to take the AP exam in May. **Text:** *Human Geography: People, Place and Culture*, 10<sup>th</sup> Edition (2013) – Fouberg, Murphy, and Blij. (digital options available) 1 credit.

#### **660 ADVANCED PLACEMENT (AP) MICROECONOMICS**

Open to juniors and seniors with departmental approval. This full-year, college level course examines microeconomic theory in preparation for the AP exam. The study of microeconomics will include an examination of individual decision-makers, both consumers and producers, within the larger economic system. Topics include product markets, factor markets, profit maximization, externalities and market failure. Students are expected to take the AP exam in May. **Requirements:** tests, research paper, homework. **Text:** *Economics*, Paul Krugman (digital options available) (MSDE text provided) 1 credit.

#### **670 THE MODERN WORLD, 1945 to the Present (College Prep)**

Fulfills the Social Studies requirement for juniors. Open to seniors as an elective. This course examines the modern culture, politics, and history of the world from 1945 to present day through the context of current issues and events. Particular emphasis is placed on the increasing importance international relations and globalization of society, economics, and culture. Topics that will be covered in detail include the end of the Second World War and the emergence of the Cold War, Decolonization, the Arab-Israeli Conflict, Globalization, Problems of the Global South, the rise of China, Climate Change, and the War on Terror. Students will use the Historical Inquiry Method and primary sources in research and writing. **Requirements:** short papers, tests, and choices on a variety of written and performance assessments, including, but not limited to, National History Day. **Text:** *Foreign Affairs Magazine* Subscription (digital and print). 1 credit.

#### **671 THE MODERN WORLD, 1945 to the Present (Honors)**

Fulfills the Social Studies requirement for juniors. Open to seniors as an elective. This course examines the modern culture, politics, and history of the world from 1945 to present day

through the context of current issues and events. Particular emphasis is placed on the increasing importance international relations and globalization of society, economics, and culture. Topics that will be covered in detail include the end of the Second World War and the emergence of the Cold War, Decolonization, the Arab-Israeli Conflict, Globalization, Problems of the Global South, the rise of China, Climate Change, and the War on Terror. Students will use the Historical Inquiry Method and primary sources in research and writing. **Requirements:** extensive research papers, essay tests, and choices on a variety of inquiry-based written and performance assessments, including, but not limited to, National History Day. **Text:** *Foreign Affairs Magazine* Subscription (digital and print) 1 credit.

**672 MODERN AMERICA, 1945 to the Present (College Prep)**

Fulfills the Social Studies requirement for juniors. Open to seniors as an elective. This course examines the modern culture, politics, and history of the United States from 1945 to present day through the context of current issues and events. Particular emphasis is placed on America's position in the world and the increased role of the government in the socio-economic life of the nation. Topics that will be covered in detail include end of the Second World War and the emergence of the Cold War, the Korean War, the Civil Rights Movement, the Vietnam conflict, the Great Society, the Watergate Scandal, the Culture Wars, immigration and growing cultural diversity, and the War on Terror. Students will use the Historical Inquiry Method and primary sources in research and writing. Requirements: short papers, tests, and choices on a variety of written and performance assessments, including, but not limited to, National History Day. **Text:** *The Making of Modern America*. (digital options available) 1 credit.

**673 MODERN AMERICA, 1945 to the Present (Honors)**

Fulfills the Social Studies requirement for juniors. Open to seniors as an elective. This course examines the modern culture, politics, and history of the United States from 1945 to present day through the context of current issues and events. Particular emphasis is placed on America's position in the world and the increased role of the government in the socio-economic life of the nation. Topics that will be covered in detail include end of the Second World War and the emergence of the Cold War, the Korean War, the Civil Rights Movement, the Vietnam conflict, the Great Society, the Watergate Scandal, the Culture Wars, immigration and growing cultural diversity, and the War on Terror. Students will use the Historical Inquiry Method and primary sources in research and writing. Requirements: extensive research papers, essay tests, and choices on a variety of inquiry-based written and performance assessment, including, but not limited to, National History Day. **Text:** *The Making of Modern America*. (digital options available) 1 credit.

**PHYSICAL EDUCATION**

**712 PHYSICAL EDUCATION I– FOUNDATIONS OF FITNESS**

Required of all freshmen. This course meets every other day for one semester. Throughout the course students will participate in a diverse range of physical activities with the goal of improving their personal fitness. Activities include cardiovascular fitness games, and weight training. Students will be graded on their daily participation and written quizzes. **Text:** TBA ¼ credit.

**714 HEALTH I**

Required for all freshmen. This course meets every other day for one semester. This comprehensive health course includes units on Wellness, Nutrition, Mental, and Social Health. Grading will be based on homework, classwork, tests, and projects. **Text:** *Health and Wellness* 2011 by Meeks and Heit – ebook. ¼ credit

**716 PHYSICAL EDUCATION II – TEAM SPORTS**

Required of all sophomores. This semester course is a continuation of 712 and also meets every other day for one semester. The team sports activities include flag football, basketball, team handball, softball, volleyball, and soccer. Each unit is approximately three weeks in duration. **Text:** TBA. ¼ credit.

**718 HEALTH II**

Required for all sophomores. This course meets every other day for one semester. This comprehensive health course includes units on Human Development, Communicable Diseases, Drugs and Tobacco, Environmental Health, Community Health, CPR, and First Aid. Grading will be based on homework, classwork, tests, and projects. **Text:** *Health and Wellness* 2011 Meeks and Heit. – ebook. ¼ credit.

**713 PHYSICAL EDUCATION III – LIFETIME SPORTS**

Open to juniors and seniors who have completed 712 and 716. This semester course is an activity class in which students will place and emphasis on improving their health-related fitness through “lifetime” physical activities. Students will participate in cross country, softball, volleyball, basketball, weight training, tennis, Frisbee golf, and other activities that lead to a lifetime of wellness. ½ credit.

**719 PHYSICAL EDUCATION IV – WEIGHT TRAINING**

Open to juniors and seniors who have completed 712 and 716. This semester course is an activity class in which students will place emphasis on improving their muscular strength and/or muscular endurance. Students will develop a personal fitness plan that targets all health related components of fitness. Sport specific training will also be introduced. ½ credit.

**BUSINESS****728 HONORS ACCOUNTING**

Open to juniors and seniors. This course emphasizes college accounting principles, concepts and procedures. The class is designed to help students who may be considering a career in accounting or related fields, build a strong foundation to support academic success. The material covered in this course aligns with topics encountered in a first-level college accounting class, as well as selected topics from a second-level college class. These topics include but are not limited to: accounting cycle closing entries, depreciation methods, cost methods, partnership income distributions, internal control, cash reconciliations, bad debts, bonds and cash flow statements. Requirements: problems, projects, exams, homework. **Text:** *College Accounting*, Prentice Hall. 1 credit.

**729 PERSONAL FINANCE AND INVESTMENT STRATEGIES -  
(Honors or College Prep)**

This semester course is open to sophomores, juniors and seniors. The course goal is to develop students’ financial literacy and knowledge. The goal is for students to apply this information in order to become financially wise, successful, and secure. Students are continually confronted with decisions that are unique to their generation and the knowledge from this class will assist with making correct, or most money-wise, decisions. Topics include creating monetary goals; understanding debt and how to absolve oneself from it; deciphering different money management options; comprehending the value of saving and how to make it work for you; why investing now can promote a comfortable retirement; understanding the many types and processes of taxes, mortgages, and insurance. After taking this class, students will have more knowledge, skills, and confidence to take charge of their financial future. **Requirement:** Final project in lieu of final exam. **Text:** None required. ½ credit.

**Addendum:** Sophomores, Juniors, and Seniors who wish to pursue Honors Level credit in Personal Finance and Investment Strategies may do so. These students must receive permission from the instructor and fill out a form of intent at the beginning of the semester class. Students will be required to complete additional coursework as well as advanced and differentiated testing and/or projects if they choose this option.

### **733 BUSINESS, FINANCE AND ENTREPRENEURSHIP**

Open to juniors and seniors. This course prepares students financially and academically, covering topics such as: entrepreneurship, stocks, bonds, mutual funds, real estate, taxes, marketing, management, money, and banking. Students will learn how to perform important calculations applicable to their financial activity. An emphasis on solid academic principles, as well as practical “real world” problems and many group projects and presentations, will prepare students for further applications and study. A midterm project is assigned in lieu of an exam. Requirements: reading, homework, tests, projects, and presentations. **Text:** *Business Essentials*, Prentice Hall. 1 credit.

### **734 BUSINESS LAW**

This introductory semester course will provide students with an opportunity to study law and its impact on business. Students will learn basic legal concepts and their application, build a vocabulary unique to business and the law, and develop critical thinking skills that are essential to analyzing cases and making sound business decisions. The course will provide students with an opportunity to study current legal and ethical issues affecting business, contracts, sales, and the American legal system. The knowledge and skills gained from Business Law are useful for students who may pursue college degrees and careers in business, human resources, management, sales, entrepreneurship, marketing and accounting. **Text:** (MSDE text provided). ½ credit.

Final Exam: There is no final exam but all students will have a final project consisting of a presentation on a specific law topic.

### **736 COMPUTER APPLICATIONS AND INFORMATION TECHNOLOGY**

Required of all freshmen and open to all students. In this lecture/lab semester course students are introduced to the basics in computer applications and information technology. Students will learn about the different types of computers, the processing unit, input and output, secondary storage and security threats. Lab work will focus on word processing, spreadsheets with associated charts and graphs, and presentation software. Additional basic lab exercises will involve an introduction to Windows and the Internet. The iSafe curriculum will be used to study Internet safety and appropriate use. Audio recording will be introduced with the program Audacity. Students will share documents using Google Apps. Coding concepts will be introduced. Students will complete several project assignments including the Career Project. Students must have access to a home computer or be available before or after school to complete some assignments. **Text:** e-book: *A Guide to Microsoft Office 2013*. 1 credit.

### **737 COMPUTER APPLICATIONS AND INFORMATION TECHNOLOGY – Original Credit/Summer School**

*This class meets in Summer School.* Open to freshmen on a significantly space-limited basis. Approval from the Studies Office is required. The content of this course is roughly equivalent to course 736. Successful completion of this summer school 737 course will satisfy the required technology credit most freshmen earn by completing the 736 semester class during the regular academic year. **Text:** *A Guide to Microsoft Office 2013*. 1 credit.

### **739 PERSONAL AND BUSINESS COMPUTER APPLICATIONS**

In this semester course, students will learn how to create databases and conduct queries using Microsoft Access. They will also work on advanced features of Microsoft Word including mail merges; advanced features and formulas in Excel spreadsheets; and advanced features in PowerPoint slide presentations including dynamic links to Excel spreadsheets. They will share documents using Google Apps, and they will use Google Classroom to read and comment on current technology articles. Those students who complete Computer Applications and Information Technology (736 or 737) with a grade of B or higher can request this course. Requirements: classwork, homework, multimedia presentation, article summary reports, and tests. **Text:** Materials provided in classroom. ½ credit.

### **750 HONORS ROBOTICS ENGINEERING**

This semester course introduces the basics of engineering through Robotics. Students are introduced to both the theory and practice of designing and programming of robots to perform rudimentary tasks. Several projects are required throughout the course. By the end of this course, students will know how to interface motors, sensors, and gears. Students investigate the concepts of robotics and its history through discussion, demonstration, readings and research. There is a component of the course that requires the preparation of a research project on a subset of the topics of robotics. **Course pre-requisites:** Completion of Computer Applications and Information Technology (736 or 737) with a grade of B or higher, and a grade of B or higher in a mathematics class at the college prep or honors level, and departmental approval. **Text:** Building Robots with Lego Mindstorms NXT by Astol (The text is available as an e-book) ½ credit.

### **758 WEB DESIGN AND HTML**

This semester course introduces the student to the development of web pages using the Hypertext Markup Language. The Adobe Creative Cloud 2015 is used, including Dreamweaver and Photoshop. Cascading Style Sheets (CSS) are explored. Multimedia technologies including audio and video are integrated in projects. Adobe Captivate 9 is also used to create e-learning modules. Those students who have successfully completed Computer Applications and Information Technology (736 or 737) with a grade of B or higher can request this course. Requirements: classwork, computer lab assignments, quizzes, readings and a final project. **Text:** none ½ credit

### **760 ADVANCED PLACEMENT (AP) COMPUTER SCIENCE**

Students will learn the basics of top-down software design and object-oriented programming techniques in the Java programming language. The course starts with a review of basic programming concepts such as if-statements and loops, then continues to more advanced topics, including modular programming, class design, and sorting algorithms. **Course pre-requisites:** Those students who have successfully completed at least two mathematics courses at the college prep or honors levels with grades of B or higher and who have completed Honors Java Programming (773), or Honors Python Programming (769), or Honors MATLAB (768) with a grade of B or higher, can request **departmental permission** to take this course. **Requirements:** programming projects, quizzes, tests, and homework. Students must take the Advanced Placement Computer Science A examination at the conclusion of the course. **Text:** *Be Prepared for AP Computer Science Examination in Java*, 6<sup>th</sup> ed. by Litvin & Litvin. 1 credit.

### **768 INTRODUCTION TO MATLAB (Honors)**

Open to juniors & seniors only. Seniority & review of academic credentials will apply in filling this course. **Course pre-requisites:** Students must have completed an Honors Algebra II course with a grade of "B" or higher and must have either completed or be concurrently enrolled in Honors Physics (540), and **departmental approval**. This one-semester course is an introductory program to MATLAB software with an emphasis on computational problem solving with applications to engineering and research. The course is designed for the student who does well in math and science and who plans to pursue applied science and/or engineering at the collegiate level. Attention is given to the following: arithmetic operations, variables, mathematical functions, complex numbers, vectors, matrices, programming, graphs, solving equations, and basic research methodology. Requirements: Projects, tests, quizzes, homework. **Text:** *MATLAB for Beginners: a gentle approach*, Peter Kattan, 2008. ½ credit

### **769 HONORS PYTHON PROGRAMMING**

This one-semester course introduces the student to the Python programming language. Students will gain hands-on experience with all aspects of the development process. Upon completion of this class, the student will be able to write programs that explore financial, scientific, and gaming contexts. Topics include: variables, loops, decision-making structures, file processing, classes, simple GUI, and recursion. Prerequisites: those students who have successfully completed Algebra I at the college prep or honors level with a grade of B or higher

may request **departmental permission** to take this course. Requirements: homework, programming projects, quizzes, readings, and tests. **Text:** *TBA* ½ credit.

### **773 HONORS JAVA PROGRAMMING**

This course introduces the student to the Java programming language. Students will gain hands-on experience with all aspects of the development process. Upon completion of this class, the student will be able to write Java programs, including mobile apps, that explore financial, scientific, and gaming concepts. Topics include: variables, data types, loops, decision-making structures, object-oriented programming, and Android development. Those students who have successfully completed Algebra I at the college prep or honors level with a grade of B or higher may request **departmental permission** to take this course. Requirements: homework, programming projects, quizzes, readings, and tests. **Text:** Materials provided in classroom. 1 credit.

## **FINE ARTS – FULL YEAR COURSES**

### **740 FUNDAMENTALS OF ART**

This course is an introduction to drawing and sculpture through the study of line, space, form, perspective and composition. Students will learn basic techniques of drawing, hand-built pottery, sculpture, and be introduced to the technique of wheel-thrown pottery. In addition to the technical aspects for art-making, emphasis will be placed on the development of problem solving skills and methods. Students will also study the history of art through videos, slides and group discussion. **Requirements:** students will complete a number of projects per quarter. Periodic home assignments will be given to supplement in class projects. Sketch Pad: 300 Series Strathmore. 1 credit.

### **741 DEVELOPMENTAL ART**

Open to those who have completed 740. This is an intermediate course that continues the principles learned in the first year of art. Students will expand their aesthetic through advanced drawing techniques, design projects, and painting with a greater emphasis on composition. Sculpture will emphasize more freedom of expression through abstract principles and practical application of techniques learned in 740. **Requirements:** Students will complete a number of projects per quarter. Periodic home assignments will be given to supplement in class projects. 1 credit.

### **742 INDEPENDENT PROJECTS**

Open to those who have completed 740 and 741; department approval. This course is an opportunity for the 3rd year art student to explore previously experienced media in greater depth and to experiment with new media on an independent basis. The number of projects will vary depending upon the scope of the work but a minimum of two projects per quarter is required. 1 credit.

### **744 ADVANCED DRAWING AND PAINTING**

Open to those who have completed 741; department approval. This course will emphasize advanced techniques in drawing and painting to include a wide variety of media and methods of working. The emphasis of the course is greater freedom of expression in conjunction with lessons in artistic composition. Home assignments are given to compel the student to learn to solve problems on his own. **Requirements:** Students will complete a number of projects per quarter; home assignments. 1 credit.

### **746 ADVANCED PLACEMENT (AP) STUDIO ART**

Open to those who have completed course 741 and department approval. This course is designed for the talented and interested art student. The major emphasis of the course is studio art. Students will work in a variety of media and units of study will stress creativity and personal expression. This course may act as a portfolio building vehicle for the serious college-bound art student. Home assignments further compel the student to solve more complex problems on their own. Interested students may wish to submit a portfolio for Advanced Placement credit. 1 credit.

## **752 SYMPHONIC BAND**

Prerequisite: Consent of Instructor (incoming freshman by Audition)

Symphonic Band is for students who can play brass or woodwind instruments. The course will cover methods and principles of the Symphonic Band Ensemble, the Pep Band, and Marching Band. This is a performance-oriented class with approximately 5-10 public performances a year. They include mandatory school concerts, most home football games, some home basketball games, and other school and community functions. **Requirements:** 1 credit

**Addendum:** Sophomores, Juniors and Seniors who wish to pursue an Honors Level credit in Symphonic Band may do so. These students must receive permission from the instructor and fill out a form of intent at the beginning of the year. Students will be required to complete additional course work and practice time should they choose this track.

## **781 SYMPHONIC PERCUSSION**

Prerequisite: Consent of Instructor (incoming freshman by Audition)

Symphonic Percussion is for students who can play traditional band or orchestra percussion instruments. The class will serve as its own ensemble and will participate as a section within the Symphonic Band proper. It will cover methods and principles of the Symphonic Band Ensemble, the Pep Band, the Percussion Ensemble, the Drumline, and the Marching Band. This is a performance-oriented class with approximately 5-10 public performances a year. They include mandatory school concerts, most home football games, some home basketball games, and other school and community functions. **Requirements:** Students will need to purchase a percussion pack. 1 credit

## **792 INTRODUCTION TO GRAPHIC DESIGN**

Open to those who have completed 736 (computer applications and information technology.) This course introduces the basic elements and underlying principles of two-dimensional design through the use of the computer. Students work with industry standard programs such as **Adobe Photoshop** and **Adobe Illustrator** software packages to create original designs, manipulate photos and explore typographical problems in design. This course lasts one year and fulfills the Fine Arts requirement. Seniority applies in filling this class. **Text:** Graphic Design 2008 1 credit.

## **793 DIGITAL PHOTOGRAPHY**

This course is an introduction to the art of taking digital photographs. Through a variety of different art problems, students will learn the basics of photography, namely, color, composition, seeing and the basic functions of their camera. At the same time students will learn to use Adobe Photoshop to correct, manipulate and enhance their work. Students are required to have their own digital camera that has a minimum of 5 mega pixels. **An 8 mega pixel SLR is strongly suggested**, but not required. All assignments for the class are holistic in nature, meaning that they deal with personal, spiritual, social, and interpersonal themes. Students must be self-motivated and have the drive to photograph extensively outside of class time, due to the nature of the course. Seniority applies in filling this class. This course fulfills the Fine Art requirement. 1 credit.

## **795 HONORS MUSIC THEORY**

In this course students will be required to read, notate, compose, sight sing, listen to and analyze music. All assignments will be focused on functional "triadic" harmony in four part texture. Cadences, vocabulary, form identification of compositions, part writing, melodic, harmonic and rhythmic dictation will be included. Tests, assignments, homework and two exams. Texts: Musicians Guide To theory & Analysis 2005, Accompanying Workbook. 1 credit.

## **796 ADVANCED DIGITAL ART**

Open to students who have completed either Introduction to Graphic Design or Digital Photography. This course is for students already confident in their Digital Art making capabilities and acts as an opportunity for them to continue pushing the skills and concepts learned in either Graphic Design or Digital Photography. Students will be exposed to new ways of working, including different Adobe software as well as varied and alternative processes for

making artwork, such as printmaking or pinhole cameras. This class will require strong independence from students. Along with the guidance of the teacher, students will decide upon their own themes and goals for their artwork in an attempt to build a portfolio of personally directed and meaningful artwork. Students are expected to be self-motivated, open to experimentation and discovery, and hard working in order to create a number of pieces per semester. Departmental approval is required to take this course. 1 credit

**797 INTRODUCTION TO GRAPHIC DESIGN - Original Credit/Summer School**

***This class meets in Summer School.*** This course is intended for those who seek an intense introduction to the basic elements and underlying principles of two-dimensional design through the use of the computer. The content of this course is roughly equivalent to course 792. This course fulfills the fine arts requirement. Seniority applies in filling this class. **Text:** *Graphic Design* 2008. 1 credit.

**FINE ARTS – SEMESTER COURSES**

**747 GUITAR III**

**Prerequisite:** Guitar II or audition with the instructor. This semester course of study is for the student who has successfully completed Guitar II or has had previous instruction in guitar and music theory (based on audition/theory placement test). Topics will include music theory, advanced playing abilities instrument, and repair/maintenance of the instruments, playing within ensembles. **Students must supply their own instruments** . **Text:** *(Theory Set II) Edly's music theory for practical people*. ½ credit.

**748 PIANO CLASS, LEVEL ONE**

This is a beginning Piano Class that is open to all students. One semester course of study and practice that will explore the basic elements of: intervals, phrasing, key signatures, melody, sight reading, dynamics, tempo markings, rhythm, chord accompaniment and melodic line, scales, and improvisation. The students will demonstrate by the end of the semester of study progress in all piano technical skills.

**Texts:** TBA ½ credit.

**749 PIANO CLASS, LEVEL TWO**

An Intermediate Piano Class that is open to any student who has passed the level one piano class, or by consent of instructor. This class is a one semester course of study that will begin with scales and piano pieces that have easy accompaniments. Students will progress to more challenging pieces and areas of study as: tonality and atonality, music theory, i.e.: chords, chord symbols and their functions. The students will demonstrate by the end of the semester of study progress in all piano technical skills. **Texts:** TBA ½ credit.

**754 INTRODUCTION TO FRETTED INSTRUMENTS I**

Open to all students. This semester course is designed for student with little or no musical experience. Students can bring to the course either an acoustic/electric guitars, banjos, acoustic/electric bass, ukulele, and mandolin. This is all the non-orchestral strings. Topics will include music theory, basic playing of the instrument, and basic repair/maintenance of the instruments. **Students must supply their own instruments**. **Text:** *Edly's music theory for practical people*. ½ credit.

**755 GUITAR II**

**Prerequisite:** Guitar I or audition with the instructor. This semester course of study is for the student who has successfully completed Guitar I or has had previous instruction in guitar (based on audition/theory placement test). Topics will include music theory, intermediate playing abilities instrument, and basic repair/maintenance of the instruments. **Students must supply their own instruments**. **Text:** *Edly's music theory for practical people*. ½ credit.

**762 INTRODUCTION TO MUSIC**

Open to all students. This semester course will introduce various areas of music which will include: basic music vocabulary, the instrumentation of major musical ensembles, major musical genres. **Requirements:** homework, tests, quizzes and projects. **Text:** TBA. ½ credit.

**791 INTRODUCTION TO DRAMA**

Open to all students. This semester course is designed to include a little bit of everything that is needed to explore the many facets of theater from Hamlet to a modern day television writer's work. Requirement: Participation in dramatic in class performance, improvisation, monologue delivery, pantomime, script writing, papers and serious readings with terms and tests. **Text:** *Drama for Reading and Performance-Perfection Learning*. ½ credit.

**794 PIANO III/MUSIC THEORY**

This course is open to students who have completed the Piano I and Piano II courses with the intention of taking Honors Music Theory. Required upon entry is an ability to play the piano on an intermediate level. (To be determined by the instructor.) This semester course of study will include an even more disciplined approach to ear training, theory, scales and modes, a variety of playing styles with a focus on chord theory work. This course is required before taking Honors Music Theory. All receive individualized attention and instruction for their level of capability. **Texts:** *The Musician's Guide to Fundamentals*, Clendinning, Marvin and Phillips (W.W. Norton Company, First Edition) ISBN: 978-0-393-92874-7 (pbk.) *Contemporary Class Piano*, Elyse Mach (Oxford University Press, Seventh Edition) ISBN: 978-0-19-538907-4  
\*note: This is the same book used in Piano I and Piano II courses. ½ credit.

**DEPAUL/COUNSELING****801 DEPAUL PROGRAM (Freshmen)**

Open to freshman enrolled in the DePaul Program. This course will focus on remedial work based on the student's individualized education plan. The course will also focus on vocabulary building, reading comprehension, writing skills, organizational skills and study skills. Students are expected to participate and complete all required work. This is a Pass/Fail class. **Text:** none required. 1 credit.

**802 DEPAUL PROGRAM (Sophomore)**

Open to sophomores who are enrolled in the DePaul Program. This course will focus on remedial work based on the student's individualized educational plan. The course will also focus on vocabulary building, reading comprehension, writing skills, organizational skills and study skills. We will also begin to prepare for the PSAT and SAT exams. Students are expected to participate and complete all required work. This is a Pass/Fail class. **Text:** none required. 1 credit.

**803 DEPAUL PROGRAM (Junior)**

Open to juniors who are enrolled in the DePaul Program. This course will focus on remedial work based on the student's individualized educational plan. This course will focus on vocabulary building, reading comprehension, writing skills, organizational skills, and study skills. We will prepare for the SAT exam and for college entrance. Students are expected to participate and complete all required work. This is a Pass/Fail class. **Text:** none required. 1 credit.

**804 DEPAUL PROGRAM (Senior)**

Open to seniors who are enrolled in the DePaul Program. This course will focus on remedial work based on the student's individualized educational plan. This course will focus on vocabulary building, reading comprehension, writing skills, organizational skills, and study skills. We will continue to prepare for the SAT exam and for college entrance. Students are expected to participate and complete all required work. This is a Pass/Fail class. **Text:** none required. 1 credit.

**805 ACADEMIC SUPPORT SERVICES**

Open to all freshmen enrolled in the Academic Support Services. This course will focus on language skills which include spelling and word structure, vocabulary building, reading comprehension, and writing skills to improve skills in the content areas. Organizational skills and study skills will also be taught. Students will utilize the Master Notebook concept. Students are expected to participate and complete all required work. This is a pass/fail class.

**Text:** No Text Required 1 credit.

**806 ACADEMIC SUPPORT SERVICES**

Open to and required of some sophomores who were enrolled in Academic Support as freshmen; enrollment in course 806 is determined based on academic achievement during the freshman year and in consultation with faculty and administration. The course is designed to provide coaching and further instruction in reading, writing, organizational and study skills, as well as to provide further support for work in all content areas. Students are expected to participate and complete all required work. This is a Pass/Fail class. **Text:** none required. 1 credit.

**810 FRESHMAN SEMINAR (Required of Freshmen)**

This is a non-credit course graded on a pass/fail basis. Topics such as orientation and adjustment to high school, study skills, high school life, college preparedness, standardized testing, and exam preparation are addressed. Health related issues such as alcohol, depression, respect and drug abuse are taught by peer educators. Students are required to participate and to complete all assignments. No credit.

**811 JUNIOR SEMINAR (Required of Juniors)**

This is a non-credit course graded on a pass/fail basis. The course is designed to provide information so that students may examine their abilities, interests and goals in the light of post-secondary education and vocation. Students are expected to participate and to complete all required work. No credit.

**822 HONORS LATIN I**

Open to all students with teacher approval. The study of Latin will concentrate on seeing Latin as a perfect model language from which the student may acquire a basic understanding of the very nature of language. Given Latin's predictability in syntax, there will be a heavy emphasis on grammatical structures as well as on the connections to other languages, especially English. All five-noun declensions and all four-verb conjugations will be studied along with a host of other elements of grammar. The goal will be to provide a rudimentary foundation to continue the study of language. **Requirements:** homework, quizzes, tests, and projects. **Text:** *First Year Latin* (MSDE text provided), *First Year Latin Workbook*. 1 Credit.

**830 PHILOSOPHY**

This course is open to all juniors and seniors who have maintained an A or B Average in their freshman and sophomore Theology classes. A recommendation from one teacher is required. This is a full year course that will introduce students to the great ideas of western philosophy from the pre-Socratics to today. The students will reflect upon various themes (such as – God, the nature of Good and Evil, Rights and Society, etc.). Students will study many of the famous works by such philosophers as: Socrates, Plato, Aristotle, Aquinas, Descartes, Hume, Kant, etc. It is our hope that students will gain a deeper appreciation for life and an understanding of the importance of thinking critically. **Text:** *Sophie's World: A Novel about the History of Philosophy*, by Jostein Gaarder. Publisher-Berkley (1996) 1 credit

**840 XAVIER SEMINAR**

This non-credit course is required of all students in the International Student program. This class provides students with general support as they continue to develop their English language skills. The course aims to provide appropriate accommodations for students as they transition into the academic curriculum, to help them navigate through the nuances of American and school culture, and to facilitate active involvement in academic classes and extracurricular

clubs and activities. **Requirements:** Self-paced Rosetta Stone tutorials. **Text:** None required. 0 credits.

## **SUMMER SCHOOL ORIGINAL CREDIT COURSES**

The classes listed in this section of the course bulletin meet only during summer school. They are intended for the highly motivated student who seeks to advance in his studies by concentrating his academic effort on one subject in a relatively fast-paced and intensive environment that features longer classes but significantly fewer weeks than the regular school year. Space is limited for each class, and approval from the Studies Office is required for all registrations.

### **444 TRIGONOMETRY - Original Credit/Summer School**

*This class meets in Summer School.* Open to those who have completed Algebra I, Geometry and Algebra II, and who seek to accelerate their study of mathematics and who seek advancement into higher math courses. The content of the course is roughly equivalent to course 442. Students will be required to complete some self-taught take-home work prior to the beginning of summer school. **Text:** will be provided. 1 credit.

### **498 GEOMETRY - Original Credit/Summer School**

*This class meets in Summer School.* Open to those who have completed Algebra I, and who seek to accelerate their study of mathematics and who seek advancement into higher math courses. The content of the course is roughly equivalent to course 422. **Text:** will be provided. 1 credit.

### **636 MODERN AMERICA, 1945 TO THE PRESENT (Honors) – Original Credit/Summer School**

*This class meets in Summer School.* Open to rising juniors and seniors who seek to accelerate their study in the field of social studies, and who obtain department approval. The content of the course is roughly equivalent to course 673. **Text:** *Present Tense the US since 1945*. 1 credit.

### **737 COMPUTER APPLICATIONS AND INFORMATION TECHNOLOGY - Original Credit/Summer School**

*This class meets in Summer School.* Open to freshmen on a significantly space-limited basis. Approval from the Studies Office is required. The content of this course is roughly equivalent to course 736. Successful completion of this summer school 737 course will satisfy the required technology credit most freshmen earn by completing the 736 semester class during the regular academic year. **Text:** TBA. 1 credit.

### **797 INTRODUCTION TO GRAPHIC DESIGN - Original Credit/Summer School**

*This class meets in Summer School.* This course is intended for those who seek an intense introduction to the basic elements and underlying principles of two-dimensional design through the use of the computer. The content of this course is roughly equivalent to course 792. This course fulfills the fine arts requirement. Seniority applies in filling this class. **Text:** *Graphic Design 2008*. 1 credit.