

GRADUATION REQUIREMENTS:

A total of 22 academic credits are required for graduation. These credits are divided as follows:

Theology	4
English	4
Math	3
Science	3
Foreign Language	2
Social Studies	2
Physical Education	1
Computers	1
Electives	(Academic courses which will complete the minimum 22 credits for graduation.)

The class of 2012 will need four (4) mathematics credits for graduation.

The class of 2013 will need four (4) mathematics and a minimum of 2.5 social studies credits for graduation.

The class of 2014 will need four (4) mathematics credits and three (3) social studies credits for graduation.

COURSE SELECTIONS:

Courses that do not meet minimum enrollment figures will be cancelled and the students involved will be placed in their second course choice. The same process will be used should a student be involved in an unresolvable conflict.

COURSE CHANGES:

1. Student courses may be changed only under extraordinary circumstances.
2. Level changes are initiated by the teacher. These changes may be made if the teacher believes a level change would be beneficial to the individual student.

3. Level changes are not allowed for the purpose of changing teachers.
4. Students may not make same level changes.
5. Student-initiated changes may be made only until April 1 of the previous school year.

THEOLOGY DEPARTMENT

GRADE 7 - CHRISTIAN FAITH

This course offers an introduction to the Judeo-Christian belief in Divine Revelation. The meaning of the Christian creed is analyzed with the intent that students understand the concept of the Holy Trinity and the gift of faith. By examining “salvation history” students will come to a deeper knowledge of Jesus Christ and a deeper understanding of the role of the Holy Spirit in the life of the church and in their own lives.

GRADE 8 –THE CHURCH AND THE MORAL LIFE

This course will introduce students to the Catholic Church through its history and practice. The presence of Christ in the Church through the ages, and His presence within the Church today will be studied. Christian Morality, with special focus on the 10 Commandments, will present a process to enable the students to navigate through challenges in their lives with a clear and positive Christian moral attitude.

GRADE 9 - CATHOLIC/CHRISTIAN IDENTITY HEBREW SCRIPTURES

The first quarter is a course on the principles of the Christian faith. It incorporates the developmental stages of faith with the tradition of faith and also includes models of the church and images of the Trinity. The remainder of the year is a course on the Hebrew Scriptures. This includes a study of the meaning of the Bible and its interpretation. The creation stories, sin stories, history of the Israelites, the Torah, the prophets and the Wisdom books are part of this course of study. Also, a service project assignment involving 2 hours per quarter of community service is a course requirement.

GRADE 10 – CHRISTIAN SCRIPTURES/SACRAMENTS

This course centers on the Christian Scriptures that include the four gospels, Acts of the Apostles, Paul’s epistles, the apostolic epistles and Revelation. An analysis using historical criticism for the study of the gospels is important. There is an emphasis on the parables and miracles of Jesus, the Beatitudes, the Sermon on the Mount, the infancy and passion narratives as well as an understanding of the gospel in the context of the Reign of God.

Also incorporated into the course is a study of the seven sacraments. This study places the sacraments in the context and meaning of the church. It also includes the essential qualities and purpose of the sacraments and their effects through the work of the church under the power of the Holy Spirit. Also, a service project assignment involving 3 hours of community service is a course requirement.

GRADE 11 –SEMESTER I: CHRISTIAN MORALITY. SEMESTER II: SOCIAL JUSTICE

This one semester morality course focuses on Christian moral principles and how to apply them correctly in making moral decisions and living by those decisions.

The second semester social justice course is a study of God’s original vision for creation together with the church’s challenge to all Christians to carry out that plan in our world. It also outlines gospel values, works and strategies to be used in social action in the context of various church encyclicals.

An integral part of this course is the 20 hour community service project that integrates classroom lessons with real Christian service in our community.

GRADE 12 – CHRISTIAN LIFE STAGES

This course will address some of the lifestyle issues students will encounter as they begin discerning their futures as men and women of faith. We will be discerning vocation, relationships and values by studying Church teachings regarding marriage, the single life, and holy orders. Students should be able to connect their study of Church to their own lifestyle decisions.

We will also study all other aspects of Christian living “from womb to tomb,” including faith development, Christian prayer, Christian service, as well as end of life issues.

ENGLISH DEPARTMENT

NOTES:

1. Writing Process is a required course for all freshmen in Levels 2 and 3. This is a full year course.
2. Advanced Writing Process is a required course for all sophomores in Levels 2 and 3. This is a semester course.
3. English III Level 1 is divided into two semester courses as follows:
Semester 1: Representative American Writers
Semester 2: Development of American Drama
4. Elective Courses: one semester
 - a. Creative Writing
 - b. Short Story
5. Full Year Electives:
 - a. Theater Arts

ENGLISH – GRADE 7

Students will study literature by genre which includes the drama, the short story, poetry and various types of non-fiction. Vocabulary skills will be developed as well as critical thinking and analyses. The essentials of good grammar used in both speaking and writing will be stressed.

ENGLISH – GRADE 8

This course is a continued study of literature by genre. Students will investigate the drama, short story, poetry and various types of non-fiction. Vocabulary skills, critical thinking and proper grammar use will also be developed in this course.

ENGLISH I – LEVEL 1

This course offers an introduction to the study of literature, focusing on the short story, non-fiction, poetry, myth and legend, drama and the novel. A structured program of development in vocabulary, critical thinking, expository and creative writing are combined with the study of literature. Grammar and composition work deals with such topics as sentence structure and variety, paragraph development and diversity and composition planning, organization and writing. Reading and writing will be coordinated. Independent work will be encouraged.

ENGLISH I – LEVEL 2

This course is based on the belief that classic literature endures for two reasons: it expresses concerns that are as real and vital today as when they were first recorded, and it expresses those concerns in a style that excites the imagination of the reader. Such literature gives people a holistic approach to thinking that reflects the development of civilization and, in particular, the American culture. At the same time, this literature introduces students to the elements and conventions of various genres of writing.

WRITING PROCESS I – LEVEL 2

This course is the study of English grammar, composition and vocabulary. Areas that will be covered include: parts of speech, parts of a sentence, sentence structure, punctuation and capitalization. With these basic skills, the student will write well-structured expository, persuasive, narrative and descriptive paragraphs. They will learn to outline and develop a five-paragraph composition and enhance their speaking ability through discussions and formal talks. Book reports and journals may be required.

ENGLISH I – LEVEL 3

The purpose of this course is to introduce students to the major literary genres and to encourage the enjoyment and appreciation of reading. Emphasis will be placed on the development of reading comprehension, vocabulary and writing skills.

WRITING PROCESS I – LEVEL 3

This course consists of the study of English grammar and the development of writing skills. Areas that will be covered are: parts of speech, parts of a sentence, sentence structure and capitalization. With these skills, students will be able to study, follow, and apply the writing process to a variety of organized essays.

ENGLISH II – LEVEL 1

This is the second year of study in a programmed introduction to literature. Students will be expected to strengthen skills introduced during the freshman year. Written assignments will reflect maturation in depth of thought and increased skills in analytical thinking.

Vocabulary skills will also be enhanced through the continued study of word parts, word origins and context clues. Emphasis will also be placed on writing skills and the study of thought patterns necessary for SAT preparations.

ENGLISH II – LEVEL 2

This course combines literary genres (short story, poetry, drama, novel and non-fiction) with a carefully structured developmental program of concepts and skills (reading comprehension, vocabulary, research, critical thinking and writing). The course thus integrates the various areas of language arts and related skills with the study and appreciation of literature.

ENGLISH II – LEVEL 3

This course is the second year of study in a programmed approach to the integration of writing, reading, vocabulary and comprehension skills. Emphasis will be placed on the recognition of literary elements and the development of paragraph writing in conjunction with materials studied in class. Students will also have the opportunity to further develop creative writing skills. By the end of the course, students will be able to write a three paragraph expository essay.

AP ENGLISH (ENGLISH III) – LEVEL 0

(Class limited to students with a 90% average in English II, Level 1 the previous year or with approval of the principal. Students also must attend a mandatory meeting at the end of the 2010-2011 school year or meet individually with the AP teacher. Under no circumstance will a student be allowed into this class after the end of the 2010-2011 school year.)

The Advanced Placement English Language and Composition course is a college introductory course providing an intense study of rhetoric, along with how authors use language to formulate their messages. Special emphasis will be placed on the English Language as it is used in non-fiction, prose, and poetry, culminating in clear and effective communication.

This course will be primarily focused on American Literature, and selections will be studied in depth until students are able to identify each author's purpose, mode of expression, and argument. Students

will achieve an absolute comprehension of diction, syntax, imagery and tone, and be able to display, in writing, full understanding of the tools writers use in persuading their audiences.

AMERICAN LITERATURE (ENGLISH III) – LEVEL 1

This course is a survey of American literature, reflecting the themes, events and values from the various periods of American life and history. In addition, students will also receive intensive PSAT and SAT preparation, instruction in composition skills and instruction in the development of the research analytical paper. Special emphasis will be placed on developing vocabulary skills.

AMERICAN LITERATURE (ENGLISH III) – LEVEL 2

This course is a survey of American literature beginning with the Colonial period and continuing through the Modern Era. Special emphasis will be placed on the further development of comprehension, vocabulary and writing skills. Students will also learn the fundamentals of research in conjunction with the preparation of a research analytical paper. In the first semester, emphasis will be placed on the further development of test-taking skills in preparation for the PSAT/SAT.

A.P. ENGLISH – LEVEL 0

(Class limited to students with a 90% average in Level 1 American Literature or an 85% average in Level 0 AP Language the previous year. Students also must attend a mandatory meeting at the end of the 2010-2011 school year or meet individually with the AP teacher. Under no circumstance will a student be allowed into this class after the end of the 2010-2011 school year.)

The Advanced Placement English course is a college level introductory course providing an intensive study of the analysis of the content of literature. Students will also be required to develop proficiency in the writing of compositions. Special emphasis will be placed on the ordering of ideas and development through the use of valid detail culminating in clear and effective communication

This course will be arranged by genres which will be studied in depth until each student can display, in writing, full understanding of the conventions of each literary type. Selections for study have been

chosen from each major genre so those students will be able to achieve an absolute comprehension of literature through the study of the elements of structure, style and technique.

BRITISH & WESTERN LITERATURE (ENGLISH IV) – LEVEL 1

This course is designed to trace the development of English literature by analyzing the styles, techniques and themes of major British writers-poets, dramatists and novelists. This course begins with the Anglo-Saxon period and concludes with the Twentieth century as it incorporates the influence of historical situations on the literature of each time period. This course will also include a comprehensive study of literary terms, writing skills and vocabulary usage. Finally, to further develop organization and writing skills, a research analytical paper will be assigned that should culminate certain aspects studied in the course.

BRITISH & WESTERN LITERATURE (ENGLISH IV) – LEVEL 2

This course is a survey of British literature beginning with English literature of the early Middle Ages. This course then follows the development of major literary trends in Britain from the Medieval period to the present day. This course will also include the study and application of literary terms, vocabulary and writing skills. As a culminating activity, each student is required to prepare a research analytical paper.

ELECTIVE COURSES – ONE SEMESTER

CREATIVE WRITING – LEVEL 1

Grades 11 and 12

This course is an introduction to the various techniques necessary to write poetry, non-fiction, short fiction and the one act play. Students will be expected to write daily, with the goal of preparing a portfolio representing work in all of the genres mentioned above. Students will learn not only to write, but to evaluate and edit their own and one another's work.

SHORT STORY – LEVEL 1

This course is an in-depth analysis of the short story genre with a focus on notable authors such as Poe, Hawthorne, Twain, Hemingway, Faulkner and Joyce. Modern stories from both British and American authors are also included to reflect a diversity of cultural themes.

Students will be expected to write a daily reader-response journal about their interpretation of each story. They will also analyze the significant literary techniques and their relationship to the meaning of the work as a whole.

FULL YEAR ELECTIVES

THEATRE ARTS – LEVEL 1

Grades 11 and 12

This course is designed to involve the student in a full-length play. Such involvement will expose them to the process of play production. All experience will be preceded by theory.

SOCIAL STUDIES DEPARTMENT

NOTES:

1. The following are required courses:
 - a. World History
 - b. American History
 - c. Government – Levels 2 and 3

SOCIAL STUDIES – GRADE 7

This course is a study of Ancient civilizations, geography and cultures. The topics are Prehistory, the Dawn of Civilization, Early Civilization in Africa, Asia, India and China and Europe. Geography skills are incorporated throughout the year. Students will gain skills by working on maps, visuals, primary sources, charts & graphs. Students will compare and contrast content. Special attention will be placed on critical thinking questions. Students will study themes related to change, religions, values, diversity, art and literature

SOCIAL STUDIES – GRADE 8

This course is a study of American history. The course will address the Discovery of America, the Colonial Period, the Revolutionary War, the Constitution, the Federal era, Growth and Expansion, Causes of the Civil War, the Civil War and Reconstruction. Students will investigate how our past comes alive through their research of literature, geography and primary source materials. The student will meet history makers throughout the course. Students will be presented opportunities to develop reading, research, and analytical skills related to American history. Students will sharpen their ability to compare and contrast information related to the development of the American Nation. Students will analyze charts and graphs pertaining to significant topics of American history and government.

WORLD HISTORY – LEVEL 1

Grade 9

This course is a study of world history, cultures and civilizations. Topics include civilizations of the Medieval World, the formation of Western Europe, Societies and Empires of Africa, people and Empires in the Americas, European Renaissance and Reformation, Muslim Expansion, the Age of Exploration, the Atlantic World, Absolute Monarchy in Europe, Enlightenment and Revolution, the Napoleonic Era, Nationalist Revolutions and the Industrial Revolution. Through research papers and outside readings, students will gain a deeper understanding of current world issues and events by recognizing the deep roots off these problems and studying the forces of change common to all periods of world history. Students will develop a healthy global vision and gain an increased awareness and respect for cultures different from their own.

WORLD HISTORY – LEVELS 2 AND 3

This course is a study of world history, geography, cultures and civilizations. Topics include civilizations of the Medieval World, the formation of Western Europe, Societies and Empires of Africa, people and Empires in the Americas, European Renaissance and Reformation, Muslim Expansion, the Age of Exploration, the Atlantic World, Absolute Monarchy in Europe, Enlightenment and Revolution, the Napoleonic Era, Nationalist Revolutions and the Industrial Revolution. Students will gain a deeper understanding of current world issues and events by recognizing the deep roots of these problems and studying

the forces of change common to all periods of history. Students will develop a healthy global vision and gain an increased awareness and respect for cultures different from their own.

AP U.S. HISTORY I – LEVEL 0

Grade 10 only – Signature of World History teacher required

This course will survey American history from the colonial period to 1877. The course is designed to provide students with the broad and sophisticated understanding of our nation's past necessary to be an informed citizen of the United States and to prepare students to excel of the AP US History Exam, which they will take in May of their Junior year (the second year of the course). The improvement of students' reading, writing, speaking, and analytical skills will also be a primary mission of the course. This advanced placement course will be conducted as if it were an introductory college course to the extent that that is possible, so students should expect to work hard.

AP U.S. HISTORY II – LEVEL 0

Grade 11 only – Signature of AP American History I teacher required

This course will survey American history from the late-1800s to the present. The course is designed to provide students with the broad and sophisticated understanding of our nation's past necessary to be an informed citizen of the United States and to prepare students to excel of the AP US History Exam, which they will take in May. The improvement of students' reading, writing, speaking, and analytical skills will also be a primary mission of the course. This advanced placement course will be conducted as if it were an introductory college course to the extent that that is possible, so students should expect to work hard.

U.S. HISTORY – LEVEL 1

Grade 11

This course is a survey of American History starting with a review of Constitutional principles and national characteristics. Students will then study Reconstruction, the Rise of Corporations, Imperialism, World War I, the Great Depression, the New Deal, World War II, the Cold War, Domestic and Foreign Issues, 1960 to the present. Students will be required to analyze and interpret primary source material in class and in outside assignments. Emphasis will be place on historical writing skills.

U.S. HISTORY – LEVEL 2

Grade 11

This course is a survey of American History starting with a review of Constitutional principles and national characteristics. Students will then study Reconstruction, the Rise of Corporations, Imperialism, World War I, the Great Depression, the New Deal, World War II, the Cold War, Domestic and Foreign Issues, 1960 to the present. Students will be required to analyze and interpret primary source material. Emphasis will be placed on written and oral presentations.

MODERN WORLD HISTORY – LEVEL 1

Grades 10 and 12

Students will utilize publications from Brown University's *The Choices Program* in a effort to understand modern world conditions. In the first quarter students will focus attention on the Arab-Israeli Conflict reading *Shifting Sands: Balancing U. S. Interests in the Middle East*. This will prepare students for the University of Michigan's Interactive Simulation Program, The Arab-Israeli. This program offers hands on, interactive communication with students from other schools via the internet in a role-playing exercise. They will analyze the Arab-Israeli Conflict, using primary source materials and role-playing techniques.

In the second quarter, students will analyze the war on terrorism confronting nations today. Students will read *Responding to Terrorism: Challenges for Democracy*. In the third quarter students will read *China on the World Stage: Weighing the U. S. Response*. At this time students will study 20th century Chinese history and the U. S. relationship with modern China.

In the fourth quarter, focus will be on post-Cold War Russia and the Former Soviet Union Nations, and issues confronting the United States and the international community. Students will read *Russia's Transformation: Challenges for U. S. Policy*. Students will become familiar with history of the Soviet Union, changes in Russia following the end of Soviet rule, and the U. S. relationship with the Soviet and contemporary Russian governments.

AP U.S. GOVERNMENT – LEVEL 0

Grade 12

This Advanced Placement course will survey American politics and government. It is intended to be the equivalent of an Introduction to American Politics/Government course at the college level. Topics covered in the first half of the course will include the constitutional basis of American government, major political philosophies, public opinion and voting patterns, interest groups, and the news media. In the second half of the year, the focus will shift to the structure and workings of the government of the United States itself. Congress, the presidency, and the federal court system will all be covered. Since this course will be taught as a college-level course, students should expect to work hard. Students will take the AP US Government exam in May

PSYCHOLOGY – LEVEL 1

Open to Grades 11 and 12

The elective course in psychology engages students in an exploration of the background of human behavior, the determinants of human behavior, and the personality characteristics of individuals. Students of psychology also examine some methods used by professional psychologist in studying human behavior. Psychology students focus on human growth and development, human learning, the effects of emotions on behavior, human growth and development, human learning, the effects of emotions on behavior, and how humans adapt to and interact in a variety of environments.

SEMESTER COURSES

GOVERNMENT – LEVEL 2

Grade 10

This semester course is designed to discuss how the government of the United States is organized at the federal level. The course will develop both a knowledge of and appreciation for the government system that is set up by the United States Constitution. Present day comparisons and usage will be discussed.

GOVERNMENT – LEVEL 3

This semester course is designed to discuss how the government of the United States is organized at the federal level. The course will develop both a knowledge of and appreciation for the government system that is set up by the United States Constitution.

WORLD GEOGRAPHY – LEVELS 2 & 3

Grade 10

Students will take a one-semester Geography course in sophomore year. The following topics will be addressed, based on the Massachusetts Standards:

1. Physical Spaces of the Earth
2. Places & Regions of the World
3. The Effects of Geography
4. Human alteration of Environments

Emphasis will be placed on understanding and application of essential geography terms and interpretation of maps, charts, graphs, and other resources.

FOREIGN LANGUAGE DEPARTMENT

Two years of a foreign language in high school is a requirement for graduation. A waiver can be requested by the parent/guardian to abolish this requirement. The Foreign Language Department strongly encourages students of native or near-native ability in one language to opt for the other language.

FRENCH I – LEVELS 1 AND 2

The main objective is to develop the ability to understand French and the mastery of simple French language patterns. The four basic skills of language learning are stressed: listening, speaking, reading and writing. A study of French culture and civilization is also introduced.

FRENCH II – LEVELS 1 AND 2

PRE-REQUISITES: Level 1 – a grade of 75% in French I with a teacher recommendation.

Level 2 – successful completion of French I

This course intends to develop the listening and speaking skills. It continues the four basic skills of language learning. French culture and civilization teaching is continued.

FRENCH III – LEVEL 1

PRE-REQUISITE: A grade of 75% in French II with a teacher recommendation.

This course provides for a complete review of French grammar and will introduce students to a study of French literature. A modified history of culture is given.

FRENCH IV – LEVEL 1

PRE-REQUISITE: A grade of 75% in French III with a teacher recommendation.

This course is designed to increase the level of acquired fluency in the French language through a review of grammatical structures and idioms, as well as through literature. The student is introduced to a brief history of French literature from the Middle Ages to the Twentieth Century. At least two select complete works are read. There is also a more intense involvement with the history of culture.

SPANISH AND FRENCH– 7TH AND 8TH GRADES

Linguistic and oral abilities will be developed by introducing simple vocabulary and grammar concepts through informal conversation, role-playing, discussion groups, situations and games. Students will become knowledgeable of Hispanic and French cultures.

SPANISH I – LEVELS 1 AND 2

This course introduces the study of Spanish through the four basic skills: listening, speaking, reading and writing. There is an emphasis on Audio-lingual proficiency. Cultural aspects of Spanish speaking countries are incorporated into the program. Oral drills are stressed.

SPANISH II – LEVELS 1 AND 2

PRE-REQUISITES: Level 1 – a grade of 80% in Spanish I with a teacher recommendation.

Level 2 – successful completion of Spanish I with a teacher recommendation.

The aim of this course is to continue the development of the basic skills with a view to self-expression in the language. Reading and writing are expanded through cultural readings.

SPANISH III – LEVELS 1 AND 2

PRE-REQUISITES: Level 1 – a year end grade of 80% in Spanish II with a teacher recommendation.

This course offers a comprehensive review of basic grammar structures. An introduction to modern as well as traditional Spanish prose and poetry is given. Emphasis is given to composition and letter writing. The class is directed in Spanish as much as possible.

SPANISH IV – LEVEL 1

PRE-REQUISITE: A year end grade of 80% in Spanish III, Level 1 with a teacher recommendation.

This course offers a review of grammatical structures and idioms. Oral and written and communication skills are stressed. Spanish conversation is an integral part of the fourth year course. Students will read short stories, essays, poetry, excerpts from novels and as a final project, read and produce a full length play in Spanish.

MATH DEPARTMENT

NOTES:

1. Freshmen with a strong Algebra background (as demonstrated by their score on a placement test) will be enrolled in Level 1 Geometry. The student would subsequently take Algebra II during their sophomore year, Pre-calculus during their junior year and Calculus during their senior year.
2. Level 1 sophomores, with the permission of their Algebra I teacher and the department chairperson, may take both Geometry and Algebra II during their sophomore year. The students would subsequently take pre-calculus in their junior year and Calculus in their senior year.
3. Level changes require the permission of the student's math teacher, department chairperson and the student's guidance counselor. Students must have an average above 87% in order to be considered for a rise in level; students must have an average below 70% and have demonstrated sufficient effort in the course in order to be considered for a decrease in level.

4. Currently, the graphing calculator used and supported by the department is the TI-83/84 or TI 83/84 Plus. Students ask for permission to use more recent versions of the TI calculator, but students using them will have to learn to operate them on their own using the manuals provided with them.
5. All Holy Name students will be required to complete a summer Math assignment. This assignment will be available on the school's web page at the start of summer vacation. At the start of the next school year, Math teachers will collect the completed assignment, review the assignment in class and give a test on the same material. Student performance on all three phases of this process will be evaluated and assessed a major test score.
6. Graduation requirements include four(4) successfully completed high school math courses.
7. All Math courses will include significant SAT and ACT preparation.

PRE-ALGEBRA – GRADE 7

Pre-Algebra introduces students to the concepts and methods that they will need to know for successful completion of Eighth Grade Algebra. In addition to reinforcement of basic computational skills, students will learn to estimate, to set up and solve problems, to write and solve equations that include exponents, negative numbers and variables. In all sections of the course, critical thinking will be emphasized, as well as the application of their developing math skills to real world problems. A scientific calculator is required.

ALGEBRA – GRADE 8

This course provides a foundation for the successful completion of an Algebra I course. The students will acquire a body of knowledge and become fluent in the language of algebra which will empower them to analyze and solve real life problems. Topics that will be covered are probability and statistics, graphing, linear equations and inequalities and polynomials. A scientific calculator is required.

ALGEBRA I – LEVELS 1, 2, and 3

Grade 9

This course is intended to teach the basic structure of the real number system and to show that the techniques of Algebra are reflections of this structure. It covers the properties of real numbers and the

language of Algebra. Topics will include operations on real numbers, simplification and evaluation of expressions, factoring, solving equalities and inequalities, absolute value equations and inequalities, linear systems and the graphing of functions and relationships. Problem solving is stressed at all levels; however, the students in the higher level will solve more challenging problems. A graphing calculator is required.

GEOMETRY –LEVELS 1, 2 and 3

Grades 9 and 10

The course involves primarily plane geometry with some work in three dimensions. Topics will include induction, deduction, elementary principles of logic, properties of lines, angles, polygons, circles, measurement (length, area, volume), congruence, similarity, ratios and proportions. Also included are an introduction to trigonometry, coordinate geometry, and formal proofs. The Level 1 course will have a greater emphasis on original proofs. Approximately 20% of instruction time will be devoted to SAT topics and skills. Student mastery of SAT skills will be tested and graded. Students will be required to have and to use a graphing calculator.

ALGEBRA II - LEVEL 1

Grades 10 and 11

This course is an extension of Algebra I. Topics will include factoring of polynomials, real/imaginary/complex numbers, polynomial functions, radical expressions, matrices and a continued introduction to trigonometry. Problem solving is incorporated into every topic. A graphing calculator is required

ALGEBRA II – LEVEL 2 and 3

Grades 11 and 12

This course is an extension of Algebra I. Topics will include factoring of polynomials, real/complex/imaginary numbers, rational expressions, radical expressions, functions and relations and conic sections. Problem solving is incorporated into every topic. A graphing calculator (TI-83) is required.

PRE-CALCULUS – LEVEL 1

Grades 11 and 12

This course is for those students who want a strong background for higher mathematics and serves as a preparation for Calculus. Topics will include exponential and logarithmic functions rational equations, conic sections, trigonometry and trigonometric applications inverse trigonometric functions, probability, statistics sequences and series including sigma notation, and the course will conclude with parametric equations and introduction to limits. Problem solving is incorporated into every topic. A graphing calculator is required. An approved graphing calculator is required.

PRE-CALCULUS – LEVEL 2

Grade 12

This course is for students who want to continue their study of mathematics beyond Algebra II but do not need to concentrate on mathematical theories and abstractions. Topics will include exponential and logarithmic functions rational equations, conic sections, trigonometry and trigonometric applications inverse trigonometric functions, probability, statistics sequences and series including sigma notation, and the course will conclude with parametric equations and introduction to limits. Problem solving is incorporated into every topic. A graphing calculator is required.

BUSINESS MATH

Grade 12

This course is for students who want to focus on the applications of the mathematics covered in the algebra and geometry courses. Students will begin with a brief review of the most pertinent mathematical topics on which the class is founded. A majority of the course will be focused many common mathematical applications. These include; doing calculations in simple every day finance, running a simple business, and creating and interpreting statistics.

ADVANCED MATH TOPICS – LEVEL 2

Grade 12

This course is for those students who want to continue their study of mathematics beyond Algebra II. It will be a topic based course with real life applications and may include: Math SAT preparation, planning

and estimating costs for various projects, surveying, the stock market, interpreting data, analysis of statistical data and estimation and measurement. Emphasis will be on group activities. An approved calculator (TI-83) is required.

AP CALCULUS – LEVEL 0

Grade 12

Pre-Calculus teacher and Math Department Chairperson approvals are required.

The students enrolled in this course are expected to take and pass the AP Calculus Exam at the end of the academic year. This course is comparable to a college calculus course. In order to be prepared for and to pass the exam, a heavy emphasis is placed on preparation, initiative and inquiry. Topics include limits, functions, derivative of functions, applications of the derivative, curve sketching, analysis of graphs, areas under and between curves, integration of functions, transcendental functions and applications of integration. All students are required to have an approved graphing calculator and to complete an intensive summer assignment.

CALCULUS – LEVEL 1

Grade 12

This course enables the student to study mathematical functions and the way they change. Topics include limits, functions, derivative of functions, applications of the derivative, curve sketching, analysis of graphs, areas under and between curves, integration of functions, transcendental functions and applications of integration. All students are required to have an approved graphing calculator and to complete an intensive summer assignment.

SCIENCE DEPARTMENT

NOTES:

1. Freshmen who test into Geometry or who score above the 85th percentile in the Math or Verbal section of the placement test will be allowed to take Biology during the freshman year.
2. Level I Chemistry and Physics are lab classes. Students enrolled in these courses will not be allowed to take seven (7) courses on their schedules.

SCIENCE – GRADE 7

Seventh Grade Science teaches students to work through problems using logic and critical thinking skills. They will learn the relationships between science, math, technology and society in a cooperative and exploratory environment. Through various hands-on activities, group projects, class discussions, and individual studies, students will apply the scientific method to essential concepts in the physical sciences. Current topics, issues in the scientific community, and student inquiries are also integrated into the course.

SCIENCE – GRADE 8

Eighth Grade Science explores the topics of Earth Science, Biology, Chemistry and Physics. Students will learn the relationships between science, math, technology and society in a cooperative and exploratory environment. Through various hands-on activities, group projects, class discussions, and individual studies, students will apply the scientific method to essential concepts in the physical and life sciences. Students will also be taught to work through problems using logic and higher-order critical thinking skills while exploring these topics and concepts. Current events and issues in the scientific community will also play a role in the discussion and exploration of science in this course.

BIOLOGY I – LEVEL 1

Grade 9

This course incorporates a molecular and conceptual approach to the study of living and once-living things. Experiments are used in conjunction with critical thinking skills to learn and practice the steps of the scientific method. Considerable independent study is required, as well as an independent year-long research experiment, and dissections in the laboratory.

*Authorization is by principal and guidance department based on testing scores.

BIOLOGY I – LEVEL 1

Grade 10

This course incorporates a molecular and conceptual approach to the study of living and once-living things. Experiments are used in conjunction with critical thinking skills to learn and practice the steps

of the scientific method. Considerable independent study is required, as well as an independent year-long research experiment, and dissections in the laboratory.

BIOLOGY I – LEVEL 2

Grade 10

A study of life is presented to develop an awareness of how living organisms react to their environment and with each other. This course incorporates a molecular and conceptual approach to the study of living and once-living things. Experiments are used in conjunction with critical thinking skills to learn and practice steps of the scientific method. Some laboratory dissections will be used to illustrate structure and function in organisms.

BIOLOGY I – LEVEL 3

Grade 10

This course uses a variety of approaches to the study of living and once-living things. Experiments are used in conjunction with critical thinking skills to learn and practice the steps of the scientific method. New biological technology and current events are studied. Some laboratory dissections are required.

CHEMISTRY - LEVEL 1 & LEVEL 2

Grades 11 and 12

Grade 10 by arrangement; requires authorization by principal

This course includes a qualitative and quantitative examination of the composition and the changes that matter undergoes. Laboratory investigations and write-ups using the scientific method are required to better understand the concepts of chemistry and the laboratory component is mandatory for Level 1 as part of the curriculum.

CHEMISTRY – LEVEL 3

Grade 11

This course is an integrated math/science course which is aimed at applying a connection between knowledge of math concepts and chemistry-related problems, introducing the concepts of chemistry to better understand the scientific method, and applying scientific concepts to everyday life.

ANATOMY AND PHYSIOLOGY – LEVEL 1

Grade 12

Grade 11 by arrangement

A comparative study of the human body, this course aims to develop an understanding of and appreciation for the relationship between structure and function in the human body, the maintenance of homeostasis and resulting pathology, and the structure and function of body systems, which are examined through dissection of the cat (mandatory).

*Requires signature of Biology I teacher

BIOLOGY II – LEVEL 2

Grade 12

This course involves an investigation of the major concepts of cellular biology through the study of the cell and the major body systems with the dissection of the fetal pig as a tool in this regard. It also includes current issues of cell biology, especially those related to identifying and understanding life function both inside and outside the organism, along with diseases and genetic disorders that affect an organism's relationship with its environment.

AP PHYSICS – LEVEL 0

Grade 12

AP Physics C is a course that covers material equivalent to the first part of the college sequence that serves as the base in physics. In order to take this class, students must have successfully completed an honors Physics course. Methods of calculus are used wherever appropriate in understanding concepts and in applying them to physical problems. Calculus is a prerequisite to AP Physics, but it may also be taken concurrently with this AP Course. Students enrolled in AP Physics must have completed, or be currently completing, an AP Calculus course through the high school or an approved outside resource. This course will cover kinematics, dynamics, energy, momentum, rotation, oscillation, and gravitation. This course will provide the tools to prepare students for the Advanced Placement Exam in Physics (Mechanics Only).

*Completion of a mandatory summer assignment is required.

*All students enrolled in the course will be expected to take the Advanced Placement examination in May.

PHYSICS – LEVEL 1

Grade 12

Grade 11 with authorization by principal.

Physics is a study of matter and energy and how they are related. This honors physics course is designed for students with considerable facilities in mathematics. Students will discover the workings of the universe at the most basic level. The subjects of study in Physics will include: the mechanics of motion (specifically kinematics and Newton's three laws of motion), the thermodynamics of materials, the analysis of mechanical, light and sound waves, electricity, magnetism and modern physics. Students will use the scientific method and the knowledge of the concepts discussed in class to perform hands-on experiments in a laboratory setting. Throughout this course students will develop critical thinking skills that will be helpful in all future educational pursuits as well as to prepare students for the rigors of college-level work in the fields of science, engineering and mathematics.

PHYSICS – LEVEL 2

Grade 12

Grade 11 with authorization by principal.

Physics is a study of matter and energy and how they are related. Students will discover the workings of the universe at the most basic level while using mathematics rather heavily. The subjects of study in Physics will include: the mechanics of motion (specifically kinematics and Newton's three laws of motion), the analysis of mechanical, light and sound waves, electricity, magnetism and modern physics. Students will use the scientific method and the knowledge of the concepts discussed in class to perform hands-on experiments in a laboratory setting. Throughout this course students will develop critical thinking skills that will be helpful in all future educational pursuits as well as to prepare students for the rigors of college-level work in the fields of science, engineering and mathematics.

COMPUTER DEPARTMENT

COMPUTER (Semester Course) – GRADE 7

This course is designed to teach students how to keyboard correctly. Students will learn the keyboard and the correct finger placement and

posture to use when typing. They will be introduced to Microsoft Word and will learn basic formatting techniques. Students will also complete activities using Microsoft Word and the Internet to develop study skills which are useful during their entire school career. This course is graded pass/fail.

COMPUTER – GRADE 8

This course is designed as an introduction to various computer applications. Students will be introduced to Microsoft Word, Microsoft Excel and Microsoft Power Point. They will be given a variety of projects and activities in each of these applications, which will also build upon their typing and computer skills that were introduced in 7th grade. Students will develop their skill in using the Internet as a resource for their studies. Time will also be devoted to activities that develop good study habits and teach students how to manage their time wisely. This course is graded pass/fail.

MICROSOFT OFFICE XP (Semester Course) – LEVEL 1

Grades 9-12

This course is designed to develop students' computer knowledge and skill using the component applications of Microsoft Office Professional in a business environment. Students will complete unit activities in Word Processing, Excel, PowerPoint and Access Database in a hands-on environment.

INTRODUCTION TO PROGRAMMING (Semester Course) – LEVEL 1

Grades 9-12

Students will be introduced to the core concepts of programming a computer including Assignment Variables, Decision Structures, Continuous Looping, Arrays and Random Functions. Concepts are continuously built upon, incorporated by hands-on activities. Students will use the BASIC language with introductions to the GUI(graphic user interface) environment.

VISUAL BASIC PROGRAMMING (Semester Course) – LEVEL 1

Grades 10, 11 and 12

PRE-REQUISITE: Student must meet the following criteria:

1. Successful completion and achievement of “90” or above average in MICROSOFT OFFICE XP or INTRODUCTION TO PROGRAMMING.
2. Approval/Signature of computer teacher or approval of principal.

Students will continue the efforts of the Introduction Course by exploring the GUI programming environment. Through implementation of elements from MICROSOFT VISUAL STUDIO, the students will build interesting applications in a Windows based environment. Content will include: Computer Operating Systems/Networking Overview, Visual Basic Programming Techniques and Computer Ethics. Upon completion, the student will be expected to understand complex programming concepts.

INTRODUCTION TO WEB DESIGN (Semester Course) – LEVEL 1

Grades 10, 11 and 12

PRE-REQUISITE: Student must meet the following criteria:

1. Successful completion and achievement of “90” or above average in MICROSOFT OFFICE XP or INTRODUCTION TO PROGRAMMING.
2. Approval/Signature of computer teacher or approval of principal.

Students will learn to code interesting web pages with HTML and JAVASCRIPT. Several interesting Projects will be undertaken as students begin to uncover the mystery behind Web Design. Upon completion, the student will be expected to design a full functioning Web Site.

ADVANCED WEB DESIGN (Semester Course) – LEVEL 1

Grades 11 and 12

PRE-REQUISITE: Student must meet the following criteria:

1. Successful completion and achievement of “90” or above average in INTRODUCTION TO WEB DESIGN.
2. Approval/Signature of computer teacher or approval of principal.

Students will learn the elements of the professional standard in Web Design. Expression Web & Swishmax will be taught in a hands-on project based environment. Students will create full-functioning, state-of-the-art web pages.

ALICE & 3-D MODELING (Semester Course) – LEVEL 1

Grades 11 and 12

PRE-REQUISITE: Student must meet the following criteria:

1. Successful completion and achievement of “90” or above average in a previous PROGRAMMING COURSE PROGRAMMING or ADVANCED WEB DESIGN.
2. Approval/Signature of computer teacher or approval of principal.

*** This Course is Available as an INDEPENDENT STUDY with Faculty/ Admin approval.**

Students will learn the basic concepts of Object Oriented Programming, 3-D modeling and Simulation Studies using the ALICE Environment & Starlogo TNG. Programming projects in object manipulation and Event Handling will be undertaken in a “hands-on” computer lab environment. Students will be responsible for keeping an electronic portfolio of their work. This course is directed toward the student who is seriously considering graduate study in computer design & technology.

AP COMPUTER – SCHEME, JAVA PLATFORMS (Full Year) – LEVEL 0

Grades 11 and 12

PRE-REQUISITE: Student must meet the following criteria:

1. Successful completion and achievement of “90” or above average in PRIOR COMPUTER/ MATH BASED COURSES.
2. Approval/Signature of computer teacher or approval of principal.

AP Computer Science A is a college level course for students who are interested in pursuing opportunities in the field of computer science or related disciplines. The course is designed to provide each student a solid foundation in object oriented programming and logical problem solving techniques. Through an organized presentation that includes object oriented concepts, standard logic algorithms, and hands-on programming projects, each student will develop and strengthen their ability to conceptualize and solve problems through the implementation of effective solutions. The course will begin by introducing the students to the simple world of Karel the Robot. Through analysis of the robots’ ability and operation, students will develop an immediate sense of the object oriented (class and method) procedural approach. Students will then develop further understanding by developing projects in animation with PLT/SCHEME & ALICE.

This GUI visual platform will strengthen understanding about object relationships and data terminology. Finally, we will spend the bulk of our efforts focusing on the Java language as our main tool of choice. Using the Java programming language, students will explore and employ the details of data encapsulation, class and method constructs, standard programming algorithms, programming methodology and syntax structures. Students will work on many programming examples including a detailed analysis of a large case study program. This course is designed to prepare each student to complete the AP Computer Science A Exam. However, more importantly, it is hoped that each student receives a solid foundation in logical thinking and problem solving that will serve them well as they begin their post high school journey in any discipline they choose.

ART DEPARTMENT

ART I – LEVEL 1

PRE REQUISITE: Juniors and seniors must write a one page essay
Explaining why they want to take Art I.

This course covers the basic elements of design. Students learn various art techniques and proper use of materials. Fundamentals are emphasized by doing projects in the following areas: drawing, painting, perspective, figure drawing, Portraiture, lettering and art history.

ART II – LEVEL 1

PRE-REQUISITE: Art I (seniors must have teacher's approval)

This course covers the basic principles of design and builds upon the basics learned in Art I. Students experiment and explore illustration of idea and thoughts, discover solutions to design problems. Studio activities include portraiture, figure drawing, painting, and clay sculpture and art history.

ART III – LEVEL 1

PRE-REQUISITES: Art I and Art II

The Art III course of study emphasizes art criticism and critical thinking skills in two and three-dimensional design. Studio activities include drawing, painting, sculpture, glass painting, cartooning, story boards two and three dimensional design and art history. Special

attention is given to developing a portfolio for students interested in art as a career.

ART IV – LEVEL 1

PRE-REQUISITE: Art teacher's approval

This course is designed to help the student complete his/her portfolio and develop proficiency in a particular medium. Students who do not plan to pursue a career in art are encouraged to learn the intricacies of art for personal enrichment but still must produce a portfolio for the student art show. Studio activities include computer graphics, two and three dimensional design, painting, drawing, and sculpture and art history.

MUSIC DEPARTMENT

NOTE:

Students may not take Chorus or Band part-time for more than two (2) years without the approval of the Music teacher.

CHORUS

This course provides an environment for vocal musicians to rehearse and perform together. It explores a diversity of musical styles including baroque, classical jazz, rock, pop and contemporary. The course helps to foster the need for individual co-operation for ensemble success. The students will both invite in and travel to other towns for musical, cultural and social exchanges. Private instruction is highly recommended.

BAND

This course will provide an environment for instrumental musicians to rehearse and perform together. The students will explore a diversity of musical styles including baroque, classical, march, jazz, rock and contemporary. The course will foster the need for individual co-operation for ensemble success. The students will both invite in and travel to other towns for musical, cultural and social exchanges. The acquisition and mastery of technical skills is emphasized. Private instruction is highly recommended.

PHYSICAL EDUCATION DEPARTMENT

Grades 7 & 8

Physical Education is a course designed to encourage students to lead a healthy and active life. Students will be involved in a variety of team sports, dual sports, recreational activities, and fitness activities. These sports and activities will help to develop motor skills, physical growth, cardiovascular endurance, and personal and social behaviors that promote a healthy and fit lifestyle.

Grades 9 & 10

Physical Education is a course designed to encourage students to lead a healthy and active life. Students will be involved in a variety of team sports, dual sports, recreational activities, and fitness activities. Students' knowledge of skills and rules related to these sports and activities will be tested through written assignments. It is the goal of the Physical Education department to use these sports and activities to help develop students' motor skills, physical growth, cardiovascular endurance, personal and social behaviors, and to promote a healthy and fit lifestyle.