



2009-2010

Course Catalog

Introduction

The purpose of this catalog is to provide our students and their parents with a description of the courses that Nazareth Academy offers. Freshwomen, sophomores, and juniors follow a prescribed course of studies and are placed in the appropriate level class based on recommendations of the teacher and guidance counselor based on grades, testing and other pertinent educational evaluative data.

Nazareth Academy reserves the right to make changes in courses, program requirements, policy, and regulations as circumstances, funding, and enrollment dictate. There is no guarantee that any course listed in this Program of Studies will be offered in any given semester.

Students are required to complete 24 credits for graduation, exclusive of those in Fine Arts, Computer Study, Study Skills, Physical Education, and Health Education. **Each student will carry six major credits yearly. Any changes in this requirement must be approved by the Administration.** The following are the course requirements for all students.

| Subject | Number of Years | Number of Credits |
|--|-----------------|-------------------|
| Religious Studies | 4 | 4 |
| English | 4 | 4 |
| Social Studies (Ancient, Modern, and United States History required) | 4 | 4 |
| Mathematics (Algebra I, Geometry, Algebra II required) | 4 | 4 |
| World Languages | 3 | 3 |
| Science (Biology and Chemistry required) | 3 | 3 |
| Fine Arts | 2 semesters | ½ |
| Health Education | 2 | ½ |
| Physical Education | 2 | ½ |
| Computer Study | 2 semesters | ½ |
| Advanced Computer Studies | 1 | ½ |
| Study Skills (Freshwomen only) | 1 | ½ |

Four Year Course of Study at Nazareth Academy

| Grade 9 | Grade 10 | Grade 11 | Grade 12 |
|--|--|--|---|
| Religious Studies I | Religious Studies II | Religious Studies III | Religious Studies IV |
| English I English (H) | Early American Literature Early American Literature (H) | Modern American Literature Modern American Literature (H) | World Literature World Literature (H) AP Literature and Composition |
| Ancient World History Ancient World History (H) | Modern World History Modern World History (H) | 20 th Century U.S. History 20 th Century U.S. History (H) AP 20 th Century U.S. History | Psychology Government & Economics Government & Economics (H) AP European History |
| French I | French II French II (H) | French III French III (H) | French IV French IV (H) |
| Spanish I | Spanish II Spanish II (H) | Spanish III Spanish III (H) | Spanish IV Spanish IV (H) |
| Latin I | Latin II | Latin III | |
| Algebra I Algebra I (H) Geometry (H) | Geometry Geometry (H) Algebra II (H) | Algebra II Algebra II (H) Pre-Calculus (H) | Probability and Statistics Pre-Calculus (H) Calculus (H) AP Calculus |
| Biology Biology (H) | Chemistry Chemistry (H) | AP Biology Astronomy* Oceanography* Anatomy and Physiology* Earth/Environmental Science* | AP Chemistry Physics (H) Astronomy* Oceanography* Anatomy and Physiology* Earth/Environmental Science* |
| Computer Study I | Computer Study II | Advanced Computer Study | |
| Physical Education I | Health I | Physical Education II | Health II |
| Fine Arts I | Fine Arts II | Humanities I | Humanities II |
| Study Skills | | | |
| Non Credit – Open to All Students | | | |
| Concert Choir Piano | Voice Studio Art | | |

* Courses taught in alternate years

Religious Studies Department

Course: Religious Studies I Hebrew Scripture

Grade Level: 9

Weight: College Prep

Prerequisites: none

Course Description: This course specifically explores Old Testament theology. In studying the Hebrew Scriptures, students will be introduced to the concepts of saving faith, the people of God, law, worship, atonement and the Kingdom of God. Spiritual formation and self-awareness of each student is cultivated through reflection of their individual beliefs and relationship with God, the Church, and the communities to which they belong.

Course: Religious Studies II Christology and Christian Scriptures

Grade Level: 10

Weight: College Prep

Prerequisites: none

Course Description: This course specifically explores the Gospels, the religious and political world of Jesus, His parables and miracles. In studying the Christian Scriptures, students have the opportunity to deepen their relationship with Jesus and to find meaning and direction in their lives and their relationships with others.

Course: Religious Studies III Christian Morality/Social Justice

Grade Level: 11

Weight: College Prep

Prerequisites: none

Course Description: In order for a student to move toward understanding of the Church's teachings, they must engage in honest dialogue. This course provides students with the opportunity to explore how Christian (Catholic) morality calls each of us to responsible relationships with God, ourselves and others. The Church supports and guides us in being faithful to Jesus and his law of love. The course ending focuses on awareness of the world and the student's role in it.

Course: Religious Studies IV Christian Lifestyles/World Religion

Grade Level: 12

Weight: College Prep

Prerequisites: none

Course Description: Included among the goals of this year long program, is to assist our students in synthesizing all aspects of their religious education into an integrated whole. Other goals are to provide a doctrinal overview of Catholic theology, to encourage students to listen to the call of

God in their lives and to commit to a lifestyle as a disciple. To enable students to fully comprehend their role as disciples they will engage in a thorough review of Judaism, Hinduism, Buddhism, Islam and other Christian denominations.

English Department

Course: English I

Grade Level: 9

Weight: College Prep

Prerequisites: none

Course Description: This course builds on the natural abilities of rhythm, storytelling, and journaling as a basis of writing. Beginning with ancient poetry and songs, students trace the progression of meter, rhyme, and form in poetry to the sonnet. Using early stories, letters, and journals, students explore the development of the novel. Editing and proofreading skills integrate with the history of the English language. Reading focuses on the theme of love and its ideals in Ancient, Medieval, Tudor, Regency, and Victorian periods.

Course: English I

Grade Level: 9

Weight: Honors

Prerequisites: Eligibility based on placement exam

Course Description: This course builds on the natural abilities of rhythm, storytelling, and journaling as a basis of writing. Beginning with ancient poetry and songs, students trace the progression of meter, rhyme, and form in poetry to the sonnet. Using early stories, letters, and journals, students explore the development of the novel. Editing and proofreading skills integrate with the history of the English language. Reading focuses on the theme of love and its ideals in Ancient, Medieval, Tudor, Regency, and Victorian periods. The topics in the Honors Course are covered at a more sophisticated and comprehensive level than College Prep English I.

Course: Early American Literature

Grade Level: 10

Weight: College Prep

Prerequisites: Recommendation of the English I Teacher

Course Description: Early American Literature explores the development of the self and the increasing importance of the individual in American Literature to 1900. In addition to a variety of literary works, students investigate diaries, journals, letters, speeches, essays, and autobiographical writings. The history of the English Language continues with the Colonists to African Americans and immigrants. Writing focuses on poetry and its changes to modern free verse. Students explore writing forms beginning with reading responses and progressing to reviews, research, and critical analysis.

Course: Early American Literature

Grade Level: 10

Weight: Honors

Prerequisites: Recommendation of the English I Teacher

Course Description: Early American Literature explores the development of the self and the increasing importance of the individual in American Literature to 1900. In addition to a variety of literary works, students investigate diaries, journals, letters, speeches, essays, and autobiographical writings. The history of the English Language continues with the Colonists to African Americans and immigrants. Writing focuses on poetry and its changes to modern free verse. Students explore writing forms beginning with reading responses and progressing to reviews, research, and critical analysis. The topics in the Honors Course are covered at a more sophisticated and comprehensive level than College Prep Early American Literature.

Course: Modern American Literature

Grade Level: 11

Weight: College Prep

Prerequisites: Recommendation of the Early American Literature Teacher

Course Description: This course provides a survey of 19th, 20th, and 21st century American Literature. The works studied closely examine the themes of the American Dream, the American Experience, search for identity, and morality and justice. Particular attention is paid to the myriad of cultures and ethnicities represented in the United States. In conjunction with literary analysis, the course focuses on writing techniques and genres, which include a research paper. Required authors include: Hemingway, Miller, Tan, Hansberry, Poe, Fitzgerald, and Salinger.

Course: Modern American Literature

Grade Level: 11

Weight: Honors

Prerequisites: Recommendation of the Early American Literature Teacher

Course Description: This course explores similar themes as College Prep Modern American Literature while working at a more erudite level. This course requires more rigorous critical thinking and writing skills from the students. The Honors course also requires the writing of a research paper. In addition to in-class reading, students will be expected to read a variety of texts outside of class. Required authors include: Hemingway, Miller, Tan, Hansberry, Poe, Fitzgerald, and Chopin.

Course: World Literature

Grade Level: 12

Weight: College Prep

Prerequisites: Recommendation of the Modern American Literature Teacher

Course Description: This course introduces students to the masterpieces of World Literature. The course explores other cultures through literary analysis of poetry, plays, short stories, essays, and novels. In conjunction with literary analysis, the course focuses on writing techniques and genres, which is investigated in a writing workshop environment, which includes a research paper. Required Texts include: *The Canterbury Tales*, *1001 Arabian Nights*, *Oedipus Rex*, *The Tempest*, Russian Short Stories, *Nectar in a Sieve*, *Les Miserables*, and *The Sailor Who Fell With Grace From the Sea*.

Course: World Literature

Grade Level: 12

Weight: Honors

Prerequisites: Recommendation of the Modern American Literature Teacher

Course Description: This course introduces students to the masterpieces of World Literature. The course explores other cultures through literary analysis of poetry, plays, short stories, essays, and novels. In conjunction with literary analysis, the course focuses on writing techniques and genres, which is investigated in a writing workshop environment, which includes a research paper. This course explores similar works and themes as the College Prep World Literature Course while working at a more advanced level. Required Texts include: *The Canterbury Tales*, *1001 Arabian Nights*, *Oedipus Rex*, *The Tempest*, Russian Short Stories, *Nectar in a Sieve*, *Don Quixote*, and *The Sailor Who Fell With Grace From the Sea*.

Course: AP Literature and Composition

Grade Level: 12

Weight: Advanced Placement

Prerequisites: B+ or higher in Honors World Literature and the recommendation of the Modern American Literature Teacher.

Course Description: This course gives students the opportunity to study literature at an introductory college level and to prepare for the AP exam. The course includes challenging examples of fiction, poetry and drama. A sophisticated level of critical thinking and writing is required. The composition component of the course consists of critical essays based on literature studied as well as a creative writing workshop, which includes a research paper. Required Texts include: *The Shorter 8th Northern Introduction to Literature*, *Pride and Prejudice*, *Light in August*, *Turn of the Screw*, and *Cracking the AP Literature Exam*.

Social Studies Department

Course: Ancient World History

Grade Level: 9

Weight: College Prep

Prerequisites: none

Course Description: This course provides a detailed study of the development of the world from pre-history through the intense nationalism of the 19th Century. The material process of the world is traced through Egypt, Mesopotamia, China, Middle East, Greece, Eastern and Western Europe, the Americas, Asia, Africa, the Middle Ages, Enlightenment, the Renaissance and Exploration, Absolutism and Imperialism, World Revolutions, and Nationalism. Special attention is given to the geographical issues, philosophical, religious, political, and social ideas which helped shaped different civilizations.

Course: Ancient World History

Grade Level: 9

Weight: Honors

Prerequisites: Eligibility based on results of placement exam

Course Description: This course provides a detailed study of the development of the world from pre-history through the intense nationalism of the 19th Century. The material process of the world is traced through Egypt, Mesopotamia, China, Middle East, Greece, Eastern and Western Europe, the Americas, Asia, Africa, the Middle Ages, Enlightenment, the Renaissance and Exploration, Absolutism and Imperialism, World Revolutions, and Nationalism. Special attention is given to the geographical issues, philosophical, religious, political, and social ideas which helped shaped different civilizations. In addition to the standard coursework, Honors students will have supplemental reading and writing requirements.

Course: Modern World History

Grade Level: 10

Weight: College Prep

Prerequisites: Recommendation of Ancient World History Teacher

Course Description: The evolution of the human experience is traced from the Enlightenment and Industrial Revolution in the early 19th Century. The nature of the social systems, cultures, and economic transformations, role of religion, education, and criminal justice in the development of modern cultures will be explored. Topics of study for the 20th Century include the collapse of colonial empires, significance and consequences of various 20th Century wars, and global industrial development. Political ideologies, such as Fascism, Communism, Leninism, Stalinism, and Nazism will be explored.

Course: Modern World History

Grade Level: 10

Weight: Honors

Prerequisites: Recommendation of Ancient World History Teacher

Course Description: The evolution of the human experience is traced from the Enlightenment and Industrial Revolution in the early 19th Century. The nature of the social systems, cultures, and economic transformations, role of religion, education, and criminal justice in the development of modern cultures will be explored. Topics of study for the 20th century include the collapse of colonial empires, significance and consequences of various 20th Century wars, and global industrial development. Political ideologies, such as Fascism, Communism, Leninism, Stalinism, and Nazism will be explored. For Honors students, the material listed above will be covered in-depth with significant emphasis on reading, research and writing.

Course: 20th Century U.S. History

Grade Level: 11

Weight: College Prep

Prerequisites: Recommendation of Modern World History Teacher

Course Description: Beginning with Industrialization and the Gilded Age in the U.S., the American experience is traced through modern times. Students will examine progressive response to industrialization, growth of U.S. imperialism, WWI, the Roaring Twenties, and the Great Depression. Students will study WWII and its impact on U.S. foreign relations during the Cold War. The post-war years will include particular attention to popular culture and politics, the Civil Rights Movement, and social upheaval during the Vietnam War. The course will end with an in-depth look at the late 20th Century presidencies of Nixon, Ford, Carter, Reagan, Bush, and Clinton, and themes for the 21st Century.

Course: 20th Century U.S. History

Grade Level: 11

Weight: Honors

Prerequisites: Recommendation of Modern World History Teacher

Course Description: Beginning with Industrialization and the Gilded Age in the U.S., the American experience is traced through modern times.

Students will examine progressive response to industrialization, growth of U.S. imperialism, WWI, the Roaring Twenties, and the Great Depression. Students will study WWII and its impact on U.S. foreign relations during the Cold War. The post-war years will include particular attention to popular culture and politics, the Civil Rights Movement, and social upheaval during the Vietnam War. The course will end with an in-depth look at the late 20th Century presidencies of Nixon, Ford, Carter, Reagan, Bush, and Clinton, and themes for the 21st Century. For Honors students, the material listed above will be covered in-depth with significant emphasis on reading, research and writing.

Course: AP 20th Century U.S. History

Grade Level: 11

Weight: Advanced Placement

Prerequisites: Recommendation of Modern World History Teacher

Course Description: Beginning with Industrialization and the Gilded Age in the U.S., the American experience is traced through modern times.

Students will examine progressive response to industrialization, growth of U.S. imperialism, WWI, the Roaring Twenties, and the Great Depression. Students will study WWII and its impact on U.S. foreign relations during the Cold War. The post-war years will include particular attention to popular culture and politics, the Civil Rights Movement, and social upheaval during the Vietnam War. The course will end with an in-depth look at the late 20th Century presidencies of Nixon, Ford, Carter, Reagan, Bush, and Clinton, and themes for the 21st Century. This course is designed to prepare students for the AP exam. Special focus is placed on interpreting primary source documents and writing analytical essays.

Course: Government & Economics

Grade Level: 11/12

Weight: College Prep

Prerequisites: None

Course Description: The study of government and economics is integral to the development of a mature understanding of modern society and one's own role within it. We will expand on students' prior knowledge from studying U.S. History by exploring in greater depth the principles and structures of American government and make comparisons with other political systems found around the world. We will also focus on current events, the importance of active citizenship, and competing theories of government. Half-way through the year we will turn our attention to

economics, exploring its tremendous impact to our daily lives. Key topics will include understanding market forces, the role of government, money and globalization.

Course: Government & Economics

Grade Level: 11/12

Weight: Honors

Prerequisites: Recommendation of Modern World History or 20th U.S. History Teacher.

Course Description: The study of government and economics is integral to the development of a mature understanding of modern society and one's own role within it. We will expand on students' prior knowledge from studying U.S. History by exploring in greater depth the principles and structures of American government and make comparisons with other political systems found around the world. We will also focus on current events, the importance of active citizenship, and competing theories of government. Half-way through the year we will turn our attention to economics, exploring its tremendous impact to our daily lives. Key topics will include understanding market forces, the role of government, money and globalization. In addition to these themes and material covered in the college prep course, the honors level course requires extended outside reading and more critical thinking and writing skills.

Course: Psychology

Grade Level: 12

Weight: College Prep

Prerequisites: None (Elective)

Course Description: This course introduces the student to major schools and concepts of psychology. By exploring human behavior and experience, the student becomes familiar with differing theories, Freudian analysis, social-environmental approaches, motivation, perception, memory, learning, emotions, and stress.

Course: AP European History

Grade Level: 12

Weight: Advanced Placement

Prerequisites: Departmental Approval

Course Description: Advanced Placement European History is designed as an actual college level subject that may be considered as college credit if the student successfully completes the national examination with a score accepted by the college. The course content and expectations are determined by the National Advanced Placement Committee. The course places heavy emphasis on the use of primary documents, college level lectures, thesis formation and document based questions. The time frame of the course spans the Fourteenth Century to post World War II Era. The entire continent of Europe is examined as well as Europe's influence throughout the world. Thus, the course has a global reach that spans seven centuries of political, economic and culture development.

World Languages

Course: Spanish I

Grade Level: 9

Weight: College Prep

Prerequisites: None

Course Description: This course provides the foundation for the student to pursue a three or four year study of the language. The goal of the course is to develop the student's ability in the basic skills of oral comprehension, speaking, reading and writing systematically and progressively. Attention is given to basic grammatical structures and audio-lingual development. The students are also exposed to the culture, customs, and geography of the Spanish speaking countries.

Course: Spanish II

Grade Level: 10

Weight: College Prep

Prerequisites: Successful completion of Spanish I

Course Description: This course combines a review of Spanish I with the introduction of new vocabulary and grammatical points, including the preterite, imperfect and future verb tenses. Interactive communication is stressed. English will be used as little as possible to encourage proficiency in Spanish. Students will continue to be exposed to the culture and customs of Spanish speaking countries.

Course: Spanish II

Grade Level: 10

Weight: Honors

Prerequisites: B+ average in Spanish I/Departmental Approval

Course Description: This course offers the accelerated student a faster paced as well as a more intensive study of the Spanish language. Students at this level are expected to cover material in more depth. Communication is stressed. English will be used as little as possible to encourage proficiency in Spanish. Students will be exposed to the culture and customs of Spanish speaking countries.

Course: Spanish III

Grade Level: 11

Weight: College Prep

Prerequisites: Successful completion of Spanish II

Course Description: Advancement toward proficiency is the focus of this course. Students are introduced to Spanish and Latin American short stories. Through the readings and classroom discussions, students will increase their Spanish vocabulary, their oral proficiency, and their knowledge of the culture of Spanish speaking countries.

Course: Spanish III

Grade Level: 11

Weight: Honors

Prerequisites: B+ average in Spanish II/Departmental Approval

Course Description: Advancement toward proficiency is the focus of this course. Students are introduced to Spanish and Latin American short stories. Through the readings and classroom discussions, students will increase their Spanish vocabulary, their oral proficiency, and their knowledge of the culture of Spanish speaking countries. The honors level students must perform at a more intense level.

Course: Spanish IV

Grade Level: 12

Weight: College Prep

Prerequisites: B+ average in Spanish III/Departmental Approval

Course Description: Fourth year students will review all Spanish grammar. They will increase their proficiency in the spoken and written language through the readings of selected Spanish and Latin American authors such as Julian Olivares, Gustave Andrian, Laura Esquivel, Federico Garcia Lorca, etc. Daily conversations about literature and other topics are expected.

Course: Spanish IV
Grade Level: 12
Weight: Honors
Prerequisites: B+ average in Spanish III/Departmental Approval
Course Description: Fourth year students will review all Spanish grammar. They will increase their proficiency in the spoken and written language through the readings of selected Spanish and Latin American authors such as Julian Olivares, Gustave Andrian, Laura Esquivel, Federico Garcia Lorca, etc. Daily conversations about literature and other topics are expected. The honors level students must perform at a more intense level.

Course: French I
Grade Level: 9
Weight: College Prep
Prerequisites: None
Course Description: This course provides students with practice in basic speaking, reading, writing, and listening skills. The students are introduced to the differences and similarities between Francophone culture and our own. The foundation in vocabulary and grammar is laid for a three or four year study of language.

Course: French II
Grade Level: 10
Weight: College Prep
Prerequisites: Successful Completion of French I
Course Description: The student will continue to improve their level of proficiency in the reading, writing, speaking and listening skills. Verb tenses, related grammar and vocabulary building are emphasized. Familiarity with Francophone customs is strengthened.

Course: French II
Grade Level: 10
Weight: Honors
Prerequisites: B+ average in French I/Departmental Approval
Course Description: The student will continue to improve their level of proficiency in the reading, writing, speaking and listening skills. Verb tenses, related grammar and vocabulary building are emphasized. Familiarity with francophone customs is strengthened. Students in honors level courses should expect to cover the material in greater depth, with greater intensity and at a faster pace.

Course: French III
Grade Level: 11
Weight: College Prep
Prerequisites: Successful completion of French II
Course Description: The student will continue to build their level of proficiency in the reading, writing, speaking and listening skills. English is used infrequently at this level. Vocabulary acquisition is by means of learning French definitions and synonyms rather than translation of English. French literature is introduced.

Course: French III
Grade Level: 11
Weight: Honors
Prerequisites: B+ average in French II/Departmental Approval
Course Description: The student will continue to build their level of proficiency in the reading, writing, speaking and listening skills. English is used infrequently at this level. Vocabulary acquisition is by means of learning French definitions and synonyms rather than translation of English. French literature is introduced. Students in honors level courses should expect to cover the material in greater depth, with greater intensity, and at a faster pace.

Course: French IV
Grade Level: 12
Weight: College Prep
Prerequisites: Successful completion of French III
Course Description: This course includes a thorough review of grammar previously taught, as well as the introduction to more advanced grammatical concepts. The students will view French films, and read French literature. Conversation is expected to be at a proficient level.

Course: French IV
Grade Level: 12
Weight: Honors
Prerequisites: B+ average in French III/Departmental Approval
Course Description: During this fourth year course taught at the honors level, students should expect to be challenged. This course includes a thorough review of grammar previously taught, as well as the introduction to more advanced grammatical concepts. The students will view French films, and read French literature. Conversation is expected to be at a proficient level.

Course: Latin I
Grade Level: 9
Weight: College Prep
Prerequisites: None

Course Description: This is an introductory course in which emphasis is placed on grammar, pronunciation, word forms, and sentence structure. There is an on-going emphasis on Latin-English word study and word derivation.

Course: Latin II
Grade Level: 10
Weight: College Prep

Prerequisites: Successful completion of Latin I
Course Description: This course is the second course in a sequence of three years of study of Latin. It continues the study of forms and sentence structure begun in Latin I. It introduces more difficult forms of syntax needed for further study of the language.

Course: Latin III
Grade Level: 11
Weight: College Prep

Prerequisites: Successful completion of Latin II
Course Description: This course is the final course in a sequence of three years of study of Latin. Students focus on a more advanced study of Latin and Greek root words and their English derivatives. An expansion of the student's view of ancient Roman civilization is offered through film and research projects. Ovid, Horace, Pliny, Seneca, and Catullus are some of the major Latin writers whose works are translated in this course.

Mathematics Department

(Texas Instruments TI-83 or TI-84 Graphing Calculators are required for all mathematics courses.)

Course: Algebra I
Grade Level: 9
Weight: College Prep
Prerequisites: None

Course Description: This is an intensive course in elementary algebra that includes algebraic and set notation, operations on real numbers and polynomials, solving equations, inequalities, special products and factoring, ratio and proportions, graphs, systems of equations, introductions to functions, and verbal problems in all areas. An effort is made to supplement and/or reinforce arithmetic needs. As time and class ability permit, further study includes irrational numbers, analyzing and graphing quantities and an in depth study of systems and graphing.

Course: Algebra I
Grade Level: 9
Weight: Honors

Prerequisites: Eligibility based on results of placement exam.
Course Description: This is an accelerated course in elementary algebra that includes algebraic and set notation, operations on real numbers and polynomials, solving equations, inequalities, special products and factoring, ratio and proportions, graphs, systems of equations, introductions to functions, irrational numbers, analyzing and graphing quantities and an in depth study of systems and graphing.

Course: Geometry
Grade Level: 9/10
Weight: College Prep

Prerequisites: Successful completion of Algebra I. For Freshwomen departmental approval is required pending results of placement exam and verification of successful completion of Algebra I in 8th grade.
Course Description: This is a fundamental course that develops an understanding of the basic structure of plane and space geometry and the relationship of cause and effect. The content grows from the basics of points, lines and planes to angles, parallel and perpendicular lines and planes, congruent and similar polygons, circles, area and volume, constructions, and right triangle trigonometry. These ideas are strengthened through deductive reasoning and proofs.

Course: Geometry
Grade Level: 9/10
Weight: Honors

Prerequisites: Successful completion of Algebra I. For freshwomen departmental approval is required pending results of placement exam and verification of successful completion of Algebra I in 8th grade.
Course Description: This is an intensive course that develops an understanding of the basic structure of plane and space geometry and the relationship of cause and effect. The content grows from the basics of points, lines and planes to angles, parallel and perpendicular lines and planes, congruent and similar polygons, circles, area and volume, constructions, coordinate geometry and right triangle trigonometry. Deductive reasoning, direct proofs and indirect proofs will be extensively explored. This course moves at an accelerated pace, covering topics at a more comprehensive and sophisticated level than other Geometry courses.

Course: Algebra II

Grade Level: 10/11

Weight: College Prep

Prerequisites: Successful completion of Algebra I and Geometry.

Course Description: This course includes a thorough review and extension of topics and techniques studied in Algebra I. The study is expanded to include: functions (linear and quadratic), irrational and complex numbers, algebraic and graphic solutions of linear and quadratic systems, verbal word problem work, and basics of coordinate geometry.

Course: Algebra II

Grade Level: 10/11

Weight: Honors

Prerequisites: Successful completion of Algebra I and Geometry with a minimum of a B+ average.

Course Description: This course includes a thorough review and extension of topics and techniques studied in Algebra I. The study includes negative, fractional and zero exponents, functions (linear and quadratic), irrational and complex numbers, algebraic and graphic solutions of linear and quadratic equations and systems, theory of quadratic equations, analytic geometry, binomial expansion, considerable verbal word problem work, and trigonometry approached from the dual perspectives of functions and vectors.

Course: Pre-Calculus

Grade Level: 11/12

Weight: Honors

Prerequisites: Successful completion of Algebra II and Geometry with a minimum of a B+ average and departmental approval.

Course Description: This course is a preparation for Calculus and includes the role of logic in deductive systems and the unification of mathematical areas. Topics include extensive work in trigonometry and continuation of Algebra II concepts regarding functions, quadratics, sequences and series. Additional areas include: vectors, complex numbers and polynomials, logarithmic and circular functions, probability, and mathematical inductions.

Course: Calculus

Grade Level: 12

Weight: Honors

Prerequisites: Successful completion of Algebra II and Geometry Honors, and Pre-Calculus Honors with a minimum of a B average and departmental approval.

Course Description: This course is for the student who has successfully completed the work normally covered in the four year sequence of high school mathematics. Topics include: concepts of continuity and limits,

differentiation, applications of differentiation, integration, Riemann Sums, the Fundamental Theorem of Calculus, logarithmic, exponential and other transcendental functions, integrations techniques, and L'Hopital's Rule. Graphing calculators will be used extensively to augment all topics.

Course: AP Calculus

Grade Level: 12

Weight: Advanced Placement

Prerequisites: Successful completion of Algebra II and Geometry Honors, and Pre-Calculus Honors with a minimum of a B+ average and departmental approval.

Course Description: The scope of this course corresponds to a college course in Calculus. It is for the highly motivated math student who has successfully completed the work normally covered in the four year sequence of high school mathematics, with high cumulative average in previous math courses. Topics covered include: concepts of continuity and limits, differentiation with its various interpolations, applications of differentiation, integration, Riemann Sums, the Fundamental Theorem of Calculus, logarithmic, exponential and other transcendental functions, integrations techniques, and L'Hopital's Rule. Graphing calculators will be used extensively to augment all topics. All students will take the AP Calculus Exam at the end of this course.

Course: Probability and Statistics

Grade Level: 12

Weight: College Prep

Prerequisites: Successful completion of Algebra II

Course Description: This course involves techniques for both quantitative and qualitative data analysis. Topics include the interpretation and construction of graphs; stem-and-leaf plots; box and whisker plots; measures of dispersion and central tendency; the normal curve including standard deviations and z-scores; probability calculations including dependent and independent events as well as calculations involving factorials. Students will be required to complete projects of data collection and develop report formats; analysis of data sets and the graphing of data are also included. Students will interpret data and formalize arguments based on calculations and analysis.

Science Department

Course: Biology

Grade Level: 9

Weight: College Prep

Prerequisites: None

Course Description: This fundamental course introduces the student to the study of living organisms. Major topics include: the scientific method as applied to biology, cell structure and function, the chemistry of biological systems, genetics, evolution theory, the classification of life and a survey of the major groups of organism and ecology. Laboratory exercises are an integral part of this course.

Course: Biology

Grade Level: 9

Weight: Honors

Prerequisites: Eligibility based on results of placement exam.

Course Description: This fundamental course introduces the student to the study of living organisms. Major topics include: the scientific method as applied to biology, cell structure and function, the chemistry of biological systems, genetics, evolution theory, the classification of life and a survey of the major groups of organism and ecology. Laboratory exercises are an integral part of this course. This course covers topics at a more sophisticated and comprehensive level than College Prep Biology.

Course: Chemistry

Grade Level: 10

Weight: College Prep

Prerequisites: Successful completion of Biology

Course Description: This course is a student-centered, activity based, issues oriented chemistry program that has been designed for students who will most likely be non-science majors in college. The students will learn many of the traditional concepts of chemistry and develop laboratory skills as well as explore how chemical concepts apply to our everyday lives. All concepts will be strengthened and further explored in laboratory activities.

Course: Chemistry

Grade Level: 10

Weight: Honors

Prerequisites: Successful completion of Biology and Algebra I with a final minimum average of B+ and departmental approval.

Course Description: This rigorous course is designed to meet the needs of students who have a strong interest in science and may be planning to enter science related fields in college, and have displayed above average mathematical achievement. The course investigates the relationship between the structure and properties of matter. Topics include: atomic and

kinetic theories, chemical reactions, molecular concept, chemical equilibrium, solution chemistry, oxidation reduction, and states of matter. Laboratory exercises include qualitative and quantitative experiments and are an integral part of this course.

Course: AP Biology

Grade Level: 11

Weight: Advanced Placement

Prerequisites: Cumulative average of B+ or better in Biology Honors and Chemistry Honors and departmental approval.

Course Description: This course is designed to prepare the student to take the Advanced Placement Biology Exam at the end of the student's junior year. This course presents Biology at a content level and pace similar to that of a freshman college Biology class.

Course: Astronomy

Grade Level: 11/12

Weight: College Prep

Prerequisites: Successful completion of Geometry, Biology and Chemistry

Course Description: This course presents a broad view of astronomy without the complex mathematics. The earth, solar system and galaxy are covered in depth. This is followed by other galaxies, both normal and active and the large scale structures and dynamics of the universe a whole. There is emphasis on the dynamic nature of the cosmos, from planets to quasars, including how the object formed and how we think they evolved. The possibility of life beyond earth is also explored. Some night viewing is required. Home telescopes are not necessary.

Course: Oceanography

Grade Level: 11/12

Weight: College Prep

Prerequisites: Successful completion of Biology and Chemistry

Course Description: Selected topics in oceanography will be explored to provide students with a broad conception of the nature of the world's ocean and evaluation of potential solutions to problems presently confronting human's relationship with the ocean. The course provides an overview of the ocean sciences; importance of the oceans to human beings; and human impact on the oceans. This introductory course focuses on physical, biological, and social aspects of the marine environment.

Course: Anatomy and Physiology

Grade Level: 11/12

Weight: College Prep

Prerequisites: Successful completion of Biology and Chemistry with a minimum final grade of C+ in those courses.

Course Description: This course focuses on the structure and workings of the human body. Major topics include: the anatomical reference systems; organization of cells into four tissue types; and an in depth study of the major organ systems in the human body. Laboratory exercises are an integral part of this course.

Course: Earth/Environmental Science

Grade Level: 11/12

Weight: College Prep

Prerequisites: Successful completion of Biology and Chemistry

Course Description: This course focuses on an understanding of planet Earth and the forces that effect change. A problem-solving approach is used to examine the Earth, its history, and its processes. Relevant topics of global concern are discussed as well as local environmental issues. Emphasis is given to our stewardship of the planet Earth.

Course: Physics

Grade Level: 12

Weight: Honors

Prerequisites: B+ or better average in Biology and Chemistry Honors with Mathematics and Science departmental approval.

Course Description: This course is designed to meet the needs of those students who are planning to major in chemistry, physics, engineering, mathematics, medicine or some other science related field. A strong background in mathematics and a high interest in science are recommended. Topics include: force, motion, energy, waves, light, electricity, space, and quantum theory. Laboratory work complements class work by examining phenomena associated with the physical world with the intent of developing understandable descriptions and predictable models.

Course: AP Chemistry

Grade Level: 12

Weight: Advanced Placement

Prerequisites: Cumulative average of A- or better in Chemistry Honors and Algebra II Honors and departmental approval.

Course Description: This fast paced college level course is designed to prepare students to take the Advanced Placement Chemistry Exam. It is intended for students who wish to pursue science related majors in college. Students should also display above average mathematical achievement. Topics include: atomic and kinetic theories, chemical reactions, molecular concept, chemical equilibrium, solution chemistry, solubility, stoichiometry,

oxidation reduction reactions, and states of matter. Laboratory exercises are an integral portion of this class and include extensive qualitative and quantitative analysis.

Computer Science

Course: Computer Study I

Grade Level: 9 (one semester)

Weight: College Prep

Prerequisites: None

Course Description: This is a one semester course designed to train students in the basics of computers. Keyboarding skills will be emphasized to include technique, accuracy, speed, and proofreading. The fundamentals of word processing will be explored extensively with Microsoft Word for Windows.

Course: Computer Study I

Grade Level: 10 (one semester)

Weight: College Prep

Prerequisites: Successful completion of Computer Study I

Course Description: This is a one semester course that continues the concepts from Computer Study I. This course will focus on Microsoft Excel, Microsoft Power Point and Microsoft Word. Web design will also be explored. Internet access and browsing will be emphasized with special focus on computer security and ethics.

Course: Advanced Computer Study

Grade Level: 11

Weight: College Prep

Prerequisites: Successful completion of Computer Study II

Course Description: This full-year course is intended to prepare juniors for computer presentations and multi-media use. Among the topics to be included are media literacy and construction of PowerPoint and Hyperstudio presentations as well as further web design exploration.

Health Education

Course: Health I

Grade Level: 10

Weight: College Prep

Prerequisites: None

Course Description: A basic foundation of health and wellness presented and discussed in meeting the objectives of preparing students for responsible decision-making skills regarding their health choices as well as those of the greater community.

Course: Health II Woman's Health

Grade Level: 12

Weight: College Prep

Prerequisites: Health I

Course Description: The issues of woman's health in today's society will be presented and discussed in meeting the objectives of preparing senior students for health-related decisions regarding themselves and the greater community.

Physical Education

Course: Physical Education I and II

Grade Level: 9 and 11

Weight: College Prep

Prerequisites: None

Course Description: Fundamentals of health-related fitness will be presented and practiced in a format of team and individual sport.

Fine Arts

Course: Fine Arts I and II

Grade Level: 9 and 10 (One semester each year)

Weight: College Prep

Prerequisites: None

Course Description: This introductory course in Music, Art, and Drama is intended to arouse the student's interest in the Fine Arts and teach them to respond intelligently to the great masterpieces that constitute our artistic, dramatic and musical heritage. This course will be a chronological survey of art, and musical forms against the background of world events.

Course: Humanities I and II

Grade Level: 11 and 12

Weight: College Prep (Elective)

Prerequisites: None

Course Description: This interdisciplinary course looks at historical and sociological events as they are expressed in literature, art and music. The goal is to lead each student to reflect about things that she sees and hears to consider differences and the similarities of great works, which have been expressed in various mediums such as art, opera, and ballet.

Study Skills

Course: Study Skills

Grade Level: 9

Weight: College Prep (Elective)

Prerequisites: None

Course Description: Study skills provide students with strategies for organization, planning, prioritizing, listening, note taking, and test taking. The vision of this course is to help students become independent, active, reflective, and adaptive learners.

Music and Art Lessons Offered for a Fee

The following classes may be taken for a fee during the school day if the student's schedule permits.

Class: Studio Art

Grade Level: Open to all

Prerequisites: None

Fee: \$ 400 per year

Class Description: Basic art concepts are explored. Elements of design, composition, and form will be covered. Students will explore techniques in drawing, painting, and sculpture, with emphasis on painting and drawing techniques. No prior experience necessary, however students will work at their own levels. Creativity and expressiveness are encouraged.

Class: Piano

Grade Level: All Levels

Class Size: Private

Prerequisites: None

Fee: \$750 per year

Class Description: Beginner through advanced lessons covering basic techniques, scales, chords, classical and popular methods.

Class: Voice
Grade Level: 9
Class Size: Maximum 5 students per class
Prerequisites: None
Required: Membership in Concert Choir and Chamber Singers
Fee: \$350 per year
Class Description: Students will learn the technique of vocal production, singing, breathing techniques, articulations and diction for public speaking and singing as well as the art of sight singing, solfeggio, and repertoire.

Class: Voice
Grade Level: 10/11/12
Class Size: Semi-Private (max. 2)
Prerequisites: None
Required: Membership in Concert Choir and Chamber Singers
Fee: \$500 per year
Class Description: More individualized class with attention to voice problems and solutions and intermediate repertoire for singers.

Class: Voice
Grade Level: 10/11
Class Size: Private
Prerequisites: Previous year of study
Required: Membership in Concert Choir and Chamber Singers
Fee: \$750 per year
Class Description: These lessons are offered to the student who exhibits mature vocal potential and serious intent to study the art of Bel-canto singing.

Class: Voice
Grade Level: 11/12
Class Size: Private
Prerequisites: 2 years of previous study
Required: Membership in Chamber Singers and Concert Choir
Fee: \$750 per year
Class Description: These lessons are offered to the student who exhibits mature vocal potential and serious intent to study the art of Bel-canto singing.

Class: Voice, Intensive
Grade Level: 12
Class Size: Private
Prerequisites: 2 years of previous study

Required: Membership in all choirs
Fee: \$750 per year
Class Description: Students will study Vaccai and Sieber vocalists, standard repertoire for singers of Bel-canto from the Italian anthology as well as the French and German Art songs. Students will prepare Oratorio solos for the Christmas performances as well as operatic literature for the National Voice Teachers' competitions, music for the District and All-State competitions of the Music Educators' National Conference. All students in this class are required to study music theory, a study of notation both rhythmic and melodic; all forms of major and minor scaled, major, minor, augmented; and diminished intervals and chords and melodic composition. Listening skills, dictation, sight singing, and chord recognition will be covered.

Performing Organizations

Organization: Concert Choir
Grade Level: 9-12
Prerequisites: Audition (open to all)
Fee: \$75/ robes, costumes, & contest fees
Class Description: Students will be selected after an audition to sing in this choir which will prepare major choral works from standard and oratorio repertoire for public performances. This choir will form the chorus for the Spring Musical. In school and after school rehearsals are required.

Organization: Chamber Singers
Grade Level: 9-12
Prerequisites: Must be voice student
Class Description: This advanced voice ensemble will perform music from advanced choral repertoire at the Christmas Concert and will be featured in the Spring Musical. In school and after school rehearsals are required.

Organization: Trinity
Grade Level: 9-12
Prerequisites: Audition
Class Description: An *a cappella* music ensemble in three parts which will perform Gospel Music, Madrigals, and *a cappella* music of a high caliber from advanced choral repertoire. Students will prepare music for District and State Music Educators' competitions. In school and after school rehearsals are required.