

MATH

ALGEBRA I	<p>Text: Glencoe <i>Algebra I</i>.</p> <p>Algebra I provides students the basic tools necessary to progress in the academic sequence of high school mathematics: simplifying expressions, solving equations, solving algebraic word problems, polynomials and factoring, and systems of equations and rational expressions.</p>
GEOMETRY	<p>Text: <i>Geometry</i> Addison-Wesley.</p> <p>Geometry provides students with essential information determining spatial relationships with regard to shape and measurement. It also is a first introduction to mathematical proof and logic. Broad categories to be covered include: basic geometric definitions and postulates; lines and planes; angle relationships; triangle congruence and similarity; right triangle trig; circles; proofs relating to the preceding topics; basic constructions; area; perimeter, surface area, and volume of figures and solids.</p>
ALGEBRA II	<p>Text: <i>Algebra 2: Integration, Applications, Connections</i> Glencoe (McGraw Hill)</p> <p>Algebra 2 completes the basic algebraic skills that were acquired in algebra I. There is a review of the basic skills relating to equation solving, graphing of lines, and systems of equations. These basics are then expanded to include use of matrices, polynomial and radical expressions, quadratic functions (including conic sections), and exponential and Logarithmic functions. The students also become very familiar with the use of the graphing calculator, which is an important tool at this level of mathematics.</p>
PRE-CALCULUS	<p>Text: <i>Advanced Mathematics, Precalculus with Discrete Mathematics and Data Analysis</i> McDougal Littell.</p> <p>Pre-Calculus provides the remainder of the skills needed to round out the high school math curriculum prior to calculus. Broad categories covered include: an extensive study of Trig functions, applications, and identities; a review of functions - linear, quadratic, polynomial, exponential, and logarithmic; and topics from discrete mathematics, including combinatorics and probability. The course is taught with the expectations of an advanced level course, aiming for a higher level of proficiency and understanding.</p>
CALCULUS AB (AP) OR CIHS	<p>Text: Finney, Demana, Waits, Kennedy <i>Calculus: Graphical, Numerical, Algebraic</i>, Scott Foresman</p> <p>Advanced Placement Calculus is taught as a full year Calculus course, covering the topics that are necessary to take the Calculus AB exam. These include: limits and continuity; derivatives; applications of derivatives; the definite integral; differential equations and mathematical modeling; and applications of definite integrals. Taking the AP exam is not required, but highly encouraged. Students may also opt to register for the University of Pittsburgh course math 220 as part of the College in High School program. All topics are covered as above, with the addition of vectors and simple vector calculus.</p>
AP STATISTICS	<p>Text: Yates, Moore, and Starnes <i>The Practice of Statistics</i>, 2nd ed. W.H. Freeman & Co.</p> <p>AP Statistics is offered to juniors or seniors who have completed PreCalculus. Main themes include organizing data and relationships, producing data, probability, and inference. At year's end, students may take the AP Stats exam for college credit.</p>

SCIENCE

<p>BIOLOGY</p>	<p>Text: <i>Biology</i> Prentice Hall. <i>Biology: Laboratory Manual</i> Prentice Hall. <i>Biology: Study Guide</i> Prentice Hall, 2008.</p> <p>Biology is designed to give students the basic knowledge of all living organisms and how they function and inter-relate. Topics covered include: Animal, Plant and Bacterial cell structures and their functions, Classification of Organisms, Animal characteristics and systems, Plant structures and functions, and Basic Genetic Principles. This course also includes a variety of corresponding laboratory experiments and several animal dissections.</p>
<p>ANATOMY AND PHYSIOLOGY</p>	<p>Text: <i>Essentials of Anatomy & Physiology Fifth Edition</i> by Seeley, Stephens and Tate, McGraw-Hill 2005.</p> <p>Anatomy and Physiology is the study of the human body systems and the functions of each. Knowledge of basic biology is required. The course concentrates on the major systems of the body and examines, in depth, the cells of each system. In addition an understanding of how cells and systems inter-relate is developed. Laboratory experiments enhance the experience and include large mammal dissections.</p>
<p>CHEMISTRY</p>	<p>Text: <i>Modern Chemistry</i> Holt Rinehart Winston</p> <p>Chemistry is a study of the relationship between the structure and properties of matter and also investigates energy changes that accompany changes in matter. It is a quantitative science and there is an emphasis on problem solving. The laboratory activities supplement the textbook and emphasize measurement, observations, and analysis of data. Laboratory safety procedures are emphasized.</p>
<p>PHYSICS</p>	<p>Text: <i>Holt Physics</i> Holt Rinehart Winston (Harcourt Brace Company)</p> <p>This course is taught as a survey of the various branches of physics. Problem solving using algebra and trigonometry are emphasized. In addition, a solid conceptual approach emphasizes an understanding of the basic laws of nature. Laboratory skills and analysis of experiments is an important component of the physics class.</p>
<p>ADVANCED PHYSICS C MECHANICS (AP)</p>	<p>Text: <i>Physics for Scientists and Engineers</i> Saunders College Publishing (Harcourt College Publishers).</p> <p>This course provides an opportunity to prepare for the AP examination in Physics C Mechanics. This course is equivalent to the pre-engineering introductory physics course for the university students. The goal is to provide an excellent first-year college-level calculus based physics experience. The major topics include Kinematics, Laws of Motion, Work and Energy, Momentum, Oscillatory Motion, and the Law of Gravity. Use of calculus in problem solving and in derivations is expected to increase as the course progresses. Opportunities for collaborative learning are provided primarily in the lab setting. Communication of the students' analysis and conclusions are given through written reports and/or class presentation.</p>

LITERATURE

<p>ANCIENT AND MEDIEVAL LITERATURE</p>	<p>Text: <i>Vocabulary Workshop</i> Level E, Sadlier-Oxford. Warriner’s <i>Grammar and Composition</i>.</p> <p>This course introduces students to the rich heritage of ancient Greek and medieval literature so that they may better appreciate the roots and achievements of the Western tradition. Course readings serve as a springboard for both discussion and thoughtful response in the writing of a variety of compositions. The primary goals for students are to develop greater skills in the art of reading critically and writing cogently – and to enjoy the journey.</p> <p>Reading List: <i>The Iliad</i>, Homer; <i>The Odyssey</i>, Homer; <i>Beowulf</i>; <i>The Song of Roland</i>; <i>The Canterbury Tales</i>, Chaucer; a Shakespearean play.</p>
<p>BRITISH LITERATURE</p>	<p>Text: <i>Vocabulary Workshop</i> Level F, Sadlier-Oxford. Warriner’s <i>Grammar and Composition</i>. Norton <i>Anthology of English Literature</i>, Vol. II.</p> <p>This course focuses on the works of writers who either emanated from or resided in England, Scotland, Wales and Ireland during the 19th and 20th centuries. Study includes poets such as Blake, Wordsworth, Coleridge, Byron, Shelley, Keats, Browning, Tennyson, Hopkins, Housman, Yeats and Eliot; playwrights such as Shaw and Wilde; short story writers such as Kipling, Joyce, Lawrence and Mansfield; essayists such as Chesterton and Orwell; and novelists such as Austen, Dickens and Conrad. The course examines the literary movements of Romanticism, Victorianism, and Modernism.</p> <p>Reading List: Novels: <i>Pride and Prejudice</i>, Austen; <i>A Tale of Two Cities</i>, Dickens; <i>The Secret Sharer/The Heart of Darkness</i>, Conrad; <i>The Importance of Being Ernest</i>, Wilde; <i>Major Barbara</i>, Shaw.</p>
<p>AMERICAN LITERATURE</p>	<p>Text: <i>The American Experience</i> Prentice Hall. <i>Vocabulary Workshop</i> Level F, Sadlier-Oxford. <i>Grammar and Composition</i> Warriner, Fifth Course.</p> <p>The aim of this course is to familiarize the student with writers who have sought to articulate the American dream and experience. Daily reading assignments serve as the seed for both discussion and reflective/critical writing.</p> <p>Reading List: <i>The Scarlet Letter</i>, Nathaniel Hawthorne; <i>Huckleberry Finn</i>, Mark Twain; <i>The Great Gatsby</i>, F. Scott Fitzgerald; <i>Henry IV Part I</i>, William Shakespeare; <i>The Crucible</i>, Miller; <i>The Glass Menagerie</i>, Williams. Additionally, this course familiarizes students with essayists such as Franklin, Emerson, Thoreau, and E.B. White; poets such as Longfellow, Dickinson, Whitman, Cummings and Frost; short story writers such as Poe, Bierce, London, Hemingway, Steinbeck, Faulkner, Welty, and O’Connor.</p>
<p>WORLD LITERATURE</p>	<p>Text: <i>Elements of Style</i>, Strunk and White; Norton <i>Anthology of World Masterpieces</i>, Vols. 1,2; <i>The Story and Its Writer: an Introduction to Short Stories</i>, Charters, 7th Ed.</p> <p>The purpose of the course is to expose students to the enduring literature of cultures and countries beyond the familiar confines of the United States and Great Britain, with several notable exceptions being works by William Shakespeare, James Joyce and Flannery O’Connor. The student reads expansively and critically responds through class discussion and essays. Moreover, the student improves writing skills by utilizing <i>Elements of Style</i> as a handbook and expands vocabulary via lists generated from readings.</p> <p>Reading List: <i>Hamlet</i>, Shakespeare; Poetics, Aristotle; <i>Oedipus Rex</i>, Sophocles; <i>Tartuffe</i>, Moliere; <i>Faust</i>, Goethe; <i>Cyrano de Bergerac</i>, Rostand; <i>The Metamorphosis</i>, Kafka; <i>Hedda Gabler</i>, Ibsen; <i>Candide</i>, Voltaire; <i>Cry, the Beloved Country</i>, Paton; <i>Crime and Punishment</i>, Dostoevsky; <i>The Divine Comedy (The Inferno)</i>, Dante; <i>Don Quixote</i> selections, Cervantes; <i>The Death of Ivan Ilych</i>, Tolstoy.</p>

HISTORY

<p>WESTERN CIVILIZATION I</p>	<p>Text: <i>Western Civilization: Volume I To 1715</i> Wadsworth (Thomson Learning). <i>Sources of the Western Tradition: Volume I from Ancient Times to the Enlightenment</i> Houghton Mifflin</p> <p>This course is a survey of Western civilization from Ancient Greece through the Renaissance. While the course is a survey, “the great conversation” that has characterized Western culture is continued in this class. The ideas of justice, virtue, church/state relations, etc. have played major role in the development of our civilization. These ideas will be explored in relation to the Church’s teachings. Extensive use of primary sources helps the students gain a more direct contact with the past, rather than through the historian’s sometimes distorted lens. Reading, class discussion, and the writing of papers and essays make up the bulk of the course work.</p>
<p>WESTERN CIVILIZATION II</p>	<p>Text: <i>The History of the Modern World</i> McGraw Hill. <i>Sources of the Western Tradition: Volume II from Renaissance to the Present</i> Fifth Edition, Houghton Mifflin</p> <p>Western Civilization II builds upon the freshman year course beginning with the Renaissance and Reformation. The student explores the tumultuous change and upheaval with the breakdown of Christendom and the medieval order. It is the popular opinion of many modern historians including the authors of the AP course text that the Renaissance (and the Enlightenment) brought about a re-birth of culture and civilization to a continent long stumbling through the dark ages following the fall of Rome. It is imperative to understand both the relationship between Europe and the Church, and the underpinning European philosophies of order and history at war with the Church in modern times if a student of European history is to make sense of it all.</p>
<p>UNITED STATES HISTORY (AP)</p>	<p>Text: <i>A History of the American People</i> Harper Collins Publishers</p> <p>This course is a survey of United States History from the Age of European Exploration to the present. In order to gain a proper understanding of who we are as Americans, it is important to examine how we have arrived at this point in history. Therefore, the main goal of the course is to give the student knowledge and an appreciation of US History, thus enabling the students to know themselves more fully. The secondary goal for the course is to provide the students who choose to take the AP test the opportunity to do well.</p>
<p>AP MODERN EUROPEAN HISTORY</p>	<p>Text: <i>A History of the Modern World</i> New York: Alfred A. Knopf, 1991. <i>Sources of the Western Tradition: Volume II from Renaissance to the Present</i> Fifth Edition, Houghton Mifflin</p> <p>Modern European History continues the investigation of Europe and the world following the French Revolution especially the primary effects of the rise of nationalism and liberalism that have shaped the modern western democracies. This course contrasts the heritage of the West rooted in the Greco-Roman world and Judeo-Christianity to the Europe emerging in the last 150 years. Students look at the devastating effects of the secularization of Europe through the lens of two world wars and the twentieth century rise of fascism, totalitarianism, nazism, and finally communism. This course explores the Cold War and the global impact of both secular democracy and atheistic communism, and concludes with the Fall of Communism in the 1989 revolutions and the post-Cold War Europe. Students who wish to take the AP exam will be prepared for this exam.</p>

LATIN

<p>LATIN I</p>	<p>Text: <i>Cambridge Latin Course: Unit II</i>, Cambridge Press</p> <p>The principal aim of the Latin I course is to begin to give the students the skills and knowledge needed to read classical literature in the original Latin. To this end, the students are expected to master the Latin vocabulary and morphology presented throughout this course. Such forms include: the present and perfect systems (active and passive) of 1st conjugation verbs; the 1st, 2nd, and 3rd declensions of nouns. In addition, students are expected through the reading and composing of Latin sentences to understand the various points of syntax presented in this course; points which are indispensable for the reading of Latin literature. Such syntactical topics include: direct questions; the imperative mood; the ablative of means; the ablative of personal agency.</p>
<p>LATIN II</p>	<p>Text: <i>Cambridge Latin Course: Unit III</i>, Cambridge Press</p> <p>The principal aim of the Latin II course is to continue to give the students the skills and knowledge needed to read classical literature in the original Latin. To this end, the students are expected to master the Latin vocabulary and morphology presented throughout this course. Such forms include: 3rd declension i-stem nouns; 3rd declension adjectives; demonstrative adjectives; the present and perfect systems (active and passive) of 2nd, 3rd, and 4th conjugation verbs. In addition, students are expected through the reading and composing of Latin sentences to understand the various points of syntax presented in this course; points which are indispensable for the reading of Latin literature. Such syntactical topics include: Latin relative clauses; reflexivity; the ablative of manner; the ablative of separation.</p>
<p>LATIN III</p>	<p>Text: <i>Latin: An Intensive Course</i> University of California Press</p> <p>The principal aim of the Latin III course is to continue to give the students the skills and knowledge needed to read classical literature in the original Latin. To this end, the students are expected to master the Latin vocabulary and morphology presented throughout this course. Such forms include: 4th, 5th declensions of nouns; the comparison of adjectives and adverbs; deponent and semi-deponent verbs; infinitives. In addition, students are expected through the reading and composing of Latin sentences to understand the various points of syntax presented in this course; points which are indispensable for the reading of Latin literature. Such syntactical topics include: indirect statement; subjective and objective infinitives; the dative with certain intransitive verbs; the impersonal passive construction; the ablative of comparison; the ablative of degree of difference.</p>
<p>LATIN IV</p>	<p>Text: <i>An Intensive Course</i> University of California Press</p> <p>The principal aim of the Latin IV course is to continue to give the students the skills and knowledge needed to read classical literature in the original Latin. To this end, the students are expected to master the Latin vocabulary and morphology presented throughout this course. Such forms include: the participial system; the subjunctive tenses; the irregular verbs <i>ferō, volō, nolō, malō</i>. In addition, students are expected through the reading and composing of Latin sentences to understand the various points of syntax presented in this course; points which are indispensable for the reading of Latin literature. Such syntactical topics include: independent uses of the subjunctive; indirect commands, indirect questions; <i>cum</i> clauses; purpose clauses; result clauses; conditional sentences.</p>
<p>LATIN (AP)</p>	<p>Text: <i>Vergil's Aeneid</i> Bolchazy-Carducci</p> <p>AP Latin is a <i>reading</i> course in classical Latin verse; in particular the classical verse of Vergil's Aeneid. Large sections of books 1, 2, 4, 6, 10, and 12 of the poem are read in preparation for the Advanced Placement exam given in the spring semester.</p>

RELIGION

<p>PERSON OF FAITH: UNDERSTANDING THE CATHOLIC FAITH</p>	<p>Text: <i>Introduction to Catholicism</i>, Midwest Theological Forum This course is an overview of the Catholic Faith. It begins with a discussion of the universal call to holiness and proceeds with a study of all major areas of Catholic doctrine: prayer, the Trinity, the Church, Mary, Revelation and the Bible, sacraments, virtues, the Ten Commandments, and the Beatitudes.</p>
<p>OLD TESTAMENT</p>	<p>Text: <i>Understanding the Scriptures</i>, Midwest Theological Forum <i>The Holy Bible</i> (RSV, Catholic Edition), Ignatius Press The Catechism of the Catholic Church teaches that the New Testament is concealed in the Old, while the Old Testament is revealed in the New. Christianity is a fulfillment of the Old Testament. Thus, knowledge of the Old Testament is indispensable for the Christian. This course is a survey of all major elements of the Old Testament: Revelation, Law, History, Wisdom Literature, Prophecy, creation, sin, salvation history in its events and figures (the patriarchs, Moses, David, Solomon, the divided kingdom), typology, etc. Emphasis is placed on God's salvific action in establishing a series of family-forming covenants in human history that are ultimately fulfilled and perfected in Christ and his Church.</p>
<p>NEW TESTAMENT</p>	<p>Text: <i>Understanding the Scriptures</i>, Midwest Theological Forum <i>The Holy Bible</i> (RSV, Catholic Edition), Ignatius Press This course builds on the foundation of Old Testament knowledge. It covers all areas of New Testament study: the New Law and History (the Gospels and Acts of the Apostles), Wisdom (the Epistles), and Prophecy (the book of Revelation). This course outlines the major components of the message of Jesus and the events of his earthly ministry, including his miracles, the parables, his passion, death, and Resurrection. Key theological themes pertinent to each sacred author are studied as well as methods of interpreting Scripture that are in harmony with the mind of the Church.</p>
<p>ECCLESIOLOGY/ CHURCH HISTORY</p>	<p>Text: <i>History of the Church</i>, Midwest Theological Forum This course studies the history of the Church, beginning at Pentecost and continuing to modern times. It will include a study of significant events, e.g. the age of the Church fathers and their writings, the Edict of Milan, the early Christological and Church Councils, the papacy, the collapse of the Roman Empire, St. Benedict and monasticism, the Eastern Schism, the Middle Ages, scholasticism, the Avignon Papacy, the Great Western Schism, the Protestant Schism, the Council of Trent, the Church during the Enlightenment, Modernism, and the Church in modern times. The course also integrates a study of biblical images that give depth and breadth to an understanding of the Church as a divine mystery in the plan of God.</p>
<p>MORAL THEOLOGY</p>	<p>Text: <i>Our Moral Life in Christ</i>, Midwest Theological Forum This course builds the fundamentals of Catholic Morality. The following topics are studied in depth: objective and subjective morality, the nature of law, the moral law, natural law, conscience and its function and formation, freedom and moral analysis, the Ten Commandments and their requirements. The course also engage the student with the social teachings of the Church.</p>
<p>APOLOGETICS AND COMPARATIVE RELIGIONS</p>	<p>Text: <i>The Holy Bible</i> (RSV, Catholic Edition), Ignatius Press This course involves a brief survey of major world religions, which are studied in relation to the main tenets of Christianity. The aim is to help the student to acknowledge man's fundamental religious nature along with whatever truth is to be found in these religions, while at the same time fostering greater appreciation in the student for the unique and ultimate revelation of God in Jesus Christ.</p>

SPANISH

SPANISH I	<p>Text: <i>Somos Asi – En Sus Marcas</i> EMC/Paradigm Publishing Workbook: <i>Spanish One</i> – Amsco</p> <p>This is an introductory course that emphasizes the four essential language skills: listening, speaking, reading, and writing. The objective of this course is to help students learn to communicate in Spanish. Students engage in conversation, provide and obtain information, express feelings and emotions and exchange opinions. Students interpret written and spoken language on a variety of topics. Cultural information is incorporated into the curriculum throughout the year.</p>
SPANISH II	<p>Text: <i>Somos Asi – Listos</i> EMC/Paradigm Publishing Workbook: <i>Spanish Two</i> – Amsco</p> <p>During this second level course there is an emphasis on listening, speaking, reading, and writing. Reinforcement of concepts and vocabulary from Spanish I is ongoing. Students move from communicating in the present to communicating in the past. They also become proficient in the use of the subjunctive, reflexive, and future verb tenses. Cultural information is incorporated into the curriculum throughout the year.</p>
SPANISH III	<p>Text: <i>Somos Asi – Ya</i> EMC/Paradigm Publishing Workbook: <i>Spanish Three</i> – Amsco</p> <p>This course continues to reinforce the four essential language skills: listening, speaking, reading, and writing. There is a communicative approach in which students learn to function as accurately as possible in situations they are most likely to encounter either in a Spanish speaking country or with Spanish speakers in the United States. Students express their ideas in the verb tenses previously introduced and become proficient in new verb tenses. Cultural information is incorporated into the curriculum throughout the year.</p>
SPANISH IV	<p>Text: <i>Spanish Four Years: Advanced Spanish with AP Component</i> – Amsco</p> <p>In this course students communicate at an advanced level. The students read authentic materials written by and for native speakers. This course continues to build speaking and writing skills which requires extensive vocabulary and grammatical proficiency. Everyone is expected to communicate in a wide range of situations. A goal of the class is to gain the tools and confidence needed for a lifetime of language learning.</p>

ART – PHILOSOPHY – ELECTIVES

<p>PHILOSOPHY OF THE HUMAN PERSON AND OF GOD</p>	<p>Text: Works of various philosophers provided by the instructor This course provides an introduction to the philosophy of the human person, focusing on key issues such as what a human person is, why I exist and who I am. As rational persons, we explore the nature of human knowledge (epistemology), the relationship between Faith and Reason, why we ought to freely choose good, and what it means to be moral (ethics). The second half of the course studies the philosophy of God (metaphysics), including treatment of the problems of Divine Foreknowledge and free will and the problem of evil.</p>
<p>PERENNIAL PROBLEMS IN PHILOSOPHY</p>	<p>Text: Selected readings provided by the instructor The goal of this course is to provide the student with an introduction to the nature or essence of the enterprise of philosophy. In particular, this course aims to make the student aware of the features which distinguish philosophy from other disciplines. To this end, therefore, throughout this course perennial problems in the history of philosophy (e.g. what is truth? What is a meaning? What is science? What is apriori knowledge? What is philosophy?) are presented via both lectures and selected readings.</p>
<p>HUMANITIES</p>	<p>Text: <i>Arts & Ideas</i> Fleming, William. The Humanities course is an investigation into the content and development of Western artistic expression from the perspective of the relationship between art, culture and religion. The course begins with a discussion of the meaning of man as created in the image of God, and as a creator of culture. The course then investigates man’s cultural achievements as a testimony of his spirit, and evidence of the inner life of Western humanity.</p>
<p>WEB DESIGN /INTRO TO PROGRAMMING</p>	<p>Text: <i>Learning Web Design</i>, O’Reilly 3rd Edition, Jennifer Nierderst Robbins. Students learn how to develop a basic functioning web site. Initially, the students become proficient in hand coding XHTML and CSS, editing photos, and optimizing graphic files. Students then are taught good web design practices, file transfer, and how to use commercially available web/graphic design software for creation of original graphics. Second Semester is intro to programming using Java.</p>
<p>JOURNALISM</p>	<p>The purpose of this two-day elective is to publish the school newspaper, <i>The Dumb Ox</i>, at least once per quarter. Students learn the fundamentals of writing news stories, features, and editorials as well as elements of newspaper design and layout.</p>
<p>ART</p>	<p>The goals for the High School Art course are: to develop age appropriate exercise so students gain experience in the use of different, more advanced artistic techniques; to familiarize students with the successive art history periods, including art history terminology and symbolism in art works; to provide the opportunity for the students to focus on their artistic skill of preference; and to push their creative boundaries and problem solving skills.</p>
<p>MIXED MEDIA</p>	<p>The Mixed Media class offers an advanced Art class for Juniors and Seniors that are interested and excited about Art. Projects may include more advanced forms of oil painting, photorealistic drawing, multi-color relief printmaking and a student designed project plus many more options. Special attention is given to the design process and creative choices made during the art making process. This class is an option for students considering a career in the Art industry or for the student that thoroughly enjoys the process of making art.</p>