

ST. MARY CATHEDRAL

PARISH & SCHOOL

Dedicated to nurturing lifelong discipleship in the Lord, promoting academic excellence, and cultivating God-given talents.



HIGH SCHOOL: GRADES 9 - 12

Standards | Course Descriptions

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Welcome to HIGH SCHOOL



HIGH SCHOOL GRADUATION REQUIREMENTS

Religion	4 credits*
Language Arts	4 credits*
Mathematics	4 credits*
Science	4 credits
Social Studies	3 credits
Foreign Language	2 credits
Physical Education / Health	1 credit
Arts	1 credit
Electives	3 credits

* 1 of the 4 credits must be taken during Senior year **26 CREDITS**

GRADING SCALE (3RD—12TH GRADE)

A 100-93%	C 76-73%
A- 92-90%	C- 72-70%
B+ 89-87%	D+ 69-67%
B 86-83%	D 66-63%
B- 82-80%	D- 62-60%
C+ 79-77%	F 59% or less

GRADE POINT AVERAGE (GPA)

Cumulative grade point average (GPA) is an average of all semester grades earned to date. For purposes of calculating GPA:

A = 4.000	C = 2.000
A- = 3.667	C- = 1.667
B+ = 3.333	D+ = 1.333
B = 3.000	D = 1.000
B- = 2.667	D- = 0.66
C+ = 2.333	F = 0

CR = Not Calculated I = Not Calculated

*AP - 5.0 Scale

If a student receives an incomplete for a marking period, two weeks are allotted to make up the work. After two weeks the incomplete converts to an F for the grade earned including unfinished work.

RENWEB/PARENTSWEB LOGIN WWW.RENWEB.COM

RenWeb is an online student information system used to keep track of the many details relative to school. The “home-school” communication portal portion of RenWeb is called ParentsWeb. Currently, it serves the following functions: Re-enrollment/ Online Enrollment Forms, Grades/Report Card, Attendance, Homework/Assignments, School and Class Directory. A link to RenWeb can also be found on the school website. <https://smg-mi.client.renweb.com/pw/>

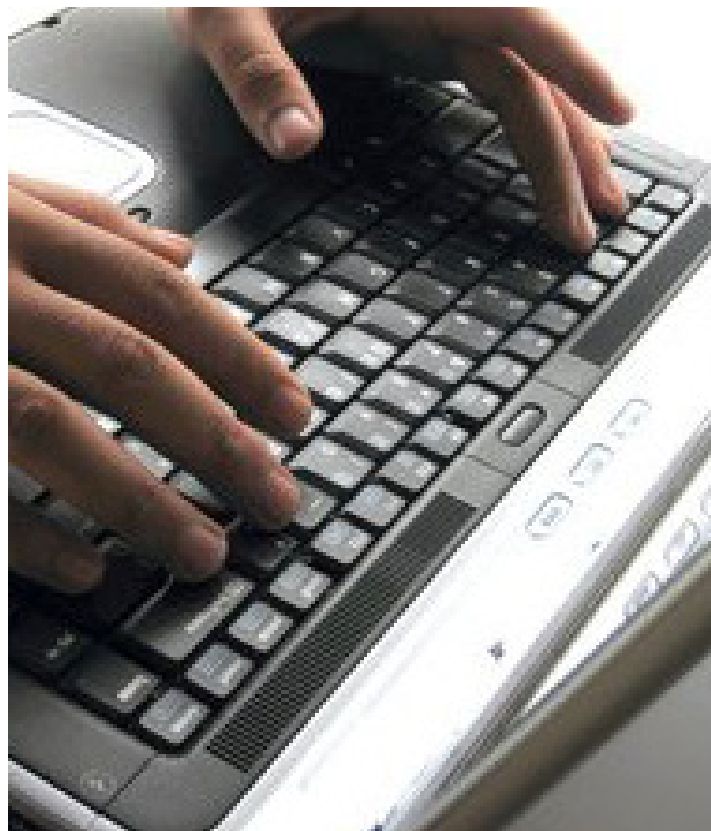
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Password:

Forgot Username / Password?

☒ Parent
☐ Student
☐ Staff





LANGUAGE ARTS

BASIC COMPOSITION & LITERATURE

9th Grade

READING:

- Read a variety of texts including fictional short stories, nonfiction Article of the Week, nonfiction memoirs, dramas (Shakespeare included), epic poem, and poetry.
- Identify literary devices and techniques in texts (fictional novels, drama, and epic poem).
- Determine central ideas or themes and analyze their development; summarize the key supporting details and ideas.
- Analyze how and why individuals, events, and ideas develop and interact over the course of the text.
- Develop stamina for reading silently.

WRITING:

- Use the writing process to write compare-contrast essays, literary analysis essays, expository-text compare/contrast, argumentative essay, narrative, research paper, and poetry.
- Write in response to literature.
- Write narratives to develop real or imagined experiences or events using effective techniques, well-chosen details, and well-structured event sequences.
- Focus on 6 traits: ideas, organization, word choice, sentence structure, fluidity, conventions.

SPEAKING/LISTENING/PRESENTING:

- Ask questions as a way to broaden and enrich classroom discussions.
- Know safe and ethical behaviors in personal electronics.
- Make presentations to the class-Book Talks, Think-Write-Pair-Share.
- Deliver organized persuasive speeches in class utilizing verbal and nonverbal devices correctly.

LITERATURE LIST:

- *To Kill a Mockingbird* by Harper Lee
- *Night* by Elie Wiesel
- *The Miracle Worker* by William Gibson / *The Jeweler's Shop* by Karol Wojtyla (Pope JohnPaul II)
- *The Tragedy of Romeo and Juliet* by William Shakespeare
- *The Odyssey* by Homer
- A variety of poetry

WORLD LITERATURE & COMPOSITION

10th Grade

READING:

- Read a variety of literary genres- fictional novels, non-fiction, Shakespearean drama, Article of the Week, supplementary fictional and nonfictional works.
- Identify literary devices and elements of fiction.
- Determine central ideas or themes and analyze their development; summarize the key supporting details and ideas.
- Analyze how and why individuals, events, and ideas develop and interact over the course of the text.
- Develop stamina for reading silently.

WRITING:

- Use the writing process to write analytical essays on fiction novels, dramas, and argumentative essays on nonfiction articles, and formal research paper. Sometimes writing takes place over extended time frames (time for research, revision, writing conferences, and reflection) and other times, it is shorter time frames (a single sitting or a day or two).
- Write in response to literature.
- Focus on synthesizing texts, adding detail and clear support to explain topic, integrating quotes from text as evidence for claim and analysis.
- Focus on 6 traits: ideas, organization, word choice, sentence structure, fluidity, conventions.
- Career Research Paper

SPEAKING/LISTENING/PRESENTING:

- Ask questions as a way to broaden and enrich classroom discussions.
- Know safe and ethical behaviors in personal electronics.
- Make presentations to the class-Book Talks, Think-Write-Pair-Share, Debate

LITERATURE LIST:

- *The Adventures of Huckleberry Finn* by Mark Twain
- *The Old Man and the Sea* by Ernest Hemingway
- *Macbeth* by William Shakespeare
- *Lord of the Flies* by William Golding
- *The Great Gatsby* by F. Scott Fitzgerald
- *Night* by Elie Wiesel

AMERICAN LITERATURE & SPEECH

Offered to 11th & 12th Grade

READING:

- Read a variety of rich, diverse, and complex literature examining literary movements in American Literature in the first semester.
- Read a variety of both informational and argumentative speeches in the second semester.
- Use close reading strategies to comprehend difficult texts and vocabulary.
- Analyze story elements and how they reveal theme.
- Analyze rhetorical devices and how they create argument.
- Examine text through critical lens.

WRITING:

- Write in different forms: argumentative, analytical, research, and reflective.
- Write informational, informative, and persuasive speeches, paying close attention to purpose and audience.
- Write in response to literature.
- Write clear and specific thesis statements.
- Explain overall meaning of a text and how it fits into world/society.
- Use specific and appropriate textual support to further student's argument by: paraphrasing, quoting, and citing.

SPEAKING/LISTENING/PRESENTING:

- Deliver organized oral presentations and speeches in class using nonverbal and verbal strategies and also using visual media effectively.
- Make presentations to the class-Book Talks, Think-Write-Pair-Share.
- Express ideas effectively in class discussions and group work.

LITERATURE LIST:

- *Of Mice and Men* by George Steinbeck
- *The Crucible* by Arthur Miller/ *The Scarlet Letter* by Nathaniel Hawthorne
- *A Raisin in the Sun* by Lorraine Hansberry

BRITISH LITERATURE AND COMPOSITION & CREATIVE WRITING

Offered to 11th and 12th Grade

READING:

- Read a variety of rich, diverse, and complex literature examining literary movements in British Literature in first semester. In second semester, read a memoir chronologizing a significant event .
- Use close reading strategies to comprehend difficult texts and vocabulary.
- Analyze story elements and how they reveal theme.
- Examine text through critical lens.

WRITING:

- During first semester, students will write in different forms: argumentative, analytical, research, and reflective.
- During second semester, students will write children's stories, short stories, memoirs, and about themselves in the future. All writing will develop real or imagined experiences or events using effective techniques, well-chosen details, and well-structured event sequences.
- Write in response to literature.
- Write clear and specific thesis statements.
- Explain overall meaning of a text and how it fits into world/society.
- Use specific and appropriate textual support to further student's argument by: paraphrasing, quoting, and citing.

SPEAKING/LISTENING/PRESENTING:

- Deliver organized oral presentations in class using visual media effectively.
- Make presentations to the class-Book Talks, Think-Write-Pair-Share.
- Express ideas effectively in class discussions and group work.

LITERATURE LIST:

- *Beowulf*
- *The Tragedy of Hamlet, Prince of Denmark* by William Shakespeare
- *Animal Farm* by George Orwell
- *Into Thin Air* by Jon Krakauer

SPEECH

Offered to 11th & 12th Grade

READING:

- Read several well known speeches and identify rhetorical devices used while determining author's purpose; as well as identifying success achieved.
- Read one act plays and discuss.
- Read about communication concepts and public speaking strategies.

WRITING:

- Write and present a variety of speeches to varying audiences: informative, impromptu, informational, persuasive, toasts, poetry recitation, monologues, and one act scenes.
- Write creatively to mimic popular writers.
- Write and present a variety of creative writing pieces: one act plays, short stories, children's stories. Focus on plot, character development, dialogue.
- Write a business letter to request a service from a company.

SPEAKING/LISTENING/PRESENTING:

- Reduce anxiety of public speaking by providing a variety of opportunities for practice, feedback, and delivery.
- Participate in weekly presentations of speech, creative writing, and debate.
- Plan and deliver well-organized presentations in class using visual media effectively.
- Express ideas effectively in class discussions and group work.

TEXTBOOK:

- *Essentials of Human Communication* by Joseph DeVito



AP LITERATURE

Offered to 11th & 12th Grade

Prerequisite: English 9 & 10, Teacher Approval Needed

READING:

- Read a variety of complex fiction and poetry examining different genres, literary movements.
- Use close reading strategies to examine literary devices and story elements to reveal theme.
- Examine text through critical lens.
- Read and apply information from primary and secondary sources for various purposes.

WRITING:

- Write in different forms based on student's interpretation of texts: narrative, close analysis-fiction, drama, and poetry; analytical-fiction; research, and reflective. Sometimes writing takes place over extended time frames (time for research, revision, writing conferences, and reflection) and other times, it is shorter time frames (a single sitting or a day or two).
- Write an interpretation of a piece of literature that is based on a careful observation of textual details, considering textual details, structure, style, and themes; the social and historical value; and elements such as figurative language, imagery, symbolism, and tone.
- Revise their work to develop:
 - A wide-ranging vocabulary
 - A variety of sentence structures
 - Logical organization using repetition, transitions, and emphasis.
 - A balance of generalization and specific, illustrative detail.
- Demonstrate mastery in writing clear thesis statements.
- Expertly explain the overall meaning of the text.
- Organize ideas within written essays: transitions, argument/quote analysis.
- Demonstrate proficiency in using specific and appropriate textual support to further student's argument by: paraphrasing, quoting, and citing.

SPEAKING/LISTENING/PRESENTING:

- Plan and deliver well-organized presentations in class using visual media effectively.
- Express ideas effectively in class discussions and group work.

LITERATURE LIST:

- *1984* by George Orwell
- *Pride and Prejudice* by Jane Austen
- *Antigone* by Sophocles
- *Julius Caesar* by William Shakespeare
- *Frankenstein* by Mary Shelley
- *Pygmalion* by George Bernard Shaw
- *Things Fall Apart* by Chinua Achebe
- *Their Eyes Were Watching God* by Zora Neale Hurston
- *Mayor of Casterbridge* by Thomas Hardy
- *A Thousand Splendid Suns* by Khaled Hosseini
- *Catcher in the Rye* by JD Salinger



AP LANGUAGE

Offered to 11th & 12th Grade

Prerequisite: English 9 & 10, Teacher Approval Needed

READING:

- Read a variety of non-fiction examining different mediums, time periods, and purposes.
- Use close reading strategies to examine rhetorical devices to reveal author's purpose. Focus on: tone, voice, diction, and sentence structure. Additionally, students will identify appeals to ethos, pathos, logos.
- Examine text through critical lens.
- Read and apply information from primary and secondary sources for various purposes.

WRITING:

- Write in different forms: synthesis, argumentative, close analysis, research, and reflective. Sometimes writing takes place over extended time frames (time for research, revision, writing conferences, and reflection) and other times, it is shorter time frames (a single sitting or a day or two).
- Expertly explain the overall meaning of the text and/or visual images.
- Revise their work to develop:
 - A wide-ranging vocabulary
 - A variety of sentence structures
 - Logical organization using repetition, transitions, and emphasis.
 - A balance of generalization and specific, illustrative detail.
- Demonstrate mastery in writing clear and specific thesis statements.
- Demonstrate proficiency in organizing ideas within written essays: transitions, argument/quote analysis.
- Demonstrate proficiency in using specific and appropriate textual support to further student's argument by: paraphrasing, quoting, and citing.

SPEAKING/LISTENING/PRESENTING:

- Plan and deliver well-organized presentations in class using visual media effectively.
- Express ideas effectively in class discussions and group work.

LITERATURE LIST:

- *The Prince* by Machiavelli
- *Profiles in Courage* by John F. Kennedy and Ted Sorensen
- *Antigone* by Sophocles
- A variety of speeches, essays based on argument, style, and rhetorical analysis.



MATHEMATICS

ALGEBRA I

Offered to Grades 8 & 9

1ST QUARTER: Rational and Irrational Numbers, Real Number (Operations, Properties), Exponents, Algebraic Expressions, Operations with Matrices, Linear Equations, Linear Inequalities, Absolute Value

2ND QUARTER: Functions, Arithmetic Sequences, Geometric Sequences, Graphs of Functions, Equation Forms, Graphs of Inequalities, Solve System of Equations (Graphically, Substitution, Elimination)

3RD QUARTER: Polynomials (Multiplication, Division), Factoring (AC method, Grouping), Radical Expressions (Operations), Pythagorean Theorem, Distance Formula

4TH QUARTER: Quadratic Function Graphs, Completing the Square, Quadratic Formula, Ratio and Rates, Calculating Error, Trigonometric Ratios, Rational Expressions

GEOMETRY

Offered to Grades 9 & 10

1ST QUARTER: Lines, Rays and Segments, Find Segment Lengths, Segment Midpoint, Angles and their measures, Proof (properties, theorems, postulates), Slope, Parallel Lines, Perpendicular Lines, Coordinate Geometry

2ND QUARTER: Parallel Lines cut by a transversal, Triangles (congruence, special segments: altitude, median, angle bisector, perpendicular bisector), Quadrilaterals (parallelograms, trapezoids, rectangles, rhombi)

3RD QUARTER: Similarity (Proportions, Geometric Mean), Right Triangles, Pythagorean Theorem, Special Right Triangles, Trigonometry, Laws of sines and cosines, Circles

4TH QUARTER: Polygons, Area, Surface Area, Volume, More Coordinate Geometry, Analytic Geometry

ALGEBRA II

Offered to Grades 10 & 11

Prerequisite: Geometry & Algebra I

1ST QUARTER: Mathematical Properties, Exponential Notation, Scientific Notation, Equations, Formulas, Inequalities, Graphs of Equations, Graphs of Functions, Mathematical Modeling, Systems of Equations

2ND QUARTER: Polynomials (Factoring), Rational Equations (Simplifying, Adding and Subtracting, Synthetic Division, Solutions of Rational Expressions)

3RD QUARTER: Radical Expressions (Operations, Complex Numbers), Quadratic Equations (Completing the Square, Quadratic Formula, Mathematical Modeling)

4TH QUARTER: Quadratic Functions (Transformations, Standard Form), Conics (Ellipses, Hyperbolas, Parabolas), Polynomials and Functions, Exponentials and Logarithmic Functions, Trigonometric Functions

ACCOUNTING

Offered to Grades 11 & 12

Prerequisite: Algebra II

DURING THIS COURSE STUDENTS LEARN THE FOLLOWING:

- Full accounting cycle from recording transactions in the general journal, and general ledger to preparing financial statements.
- Accounting terms that relate to the general business.
- Formation of entities (partnerships, corporations, and sole proprietorships).
- Accounting practices for a service company, inventory and depreciation.
- This course meets the mathematics requirement.

PRE-CALCULUS

Offered to Grades 11 & 12

Prerequisite: Algebra II

1ST QUARTER: Algebra II Review, Functions (Domain, Range, Transformations, Inverse Functions), Polynomial Solutions

2ND QUARTER: Exponential Functions and Logarithms (Transformations, As Inverse Functions), Exponential Growth and Decay, Sequences (Arithmetic, Geometric)

3RD QUARTER: Trigonometry (Unit Circle, Waves, Triangles, Laws of Sines and Cosines), Analytic Trigonometry (Trigonometry as a Function, Inverse Trigonometric Function), Polar Coordinates

4TH QUARTER: Vectors, Matrices (Solving Simultaneous Equations, Matrix Operations), Analytic Geometry (Conics: Parabolas, Ellipses, Hyperbolas), Introduction to Limits

HONORS CALCULUS

Offered to Grade 12

Prerequisite: Pre-Calculus

1ST QUARTER: Pre-Calculus Review, Limits (Properties of Limits, Limit Rules), Definition of a Derivative as a Limit, Derivatives (Properties of Derivatives, Derivative Rules), Finding Slopes

2ND QUARTER: The Derivative as a Function, Differentials, Graphs of Functions (First Derivative Implications, Second Derivative Implications), Mean Value Theorem for Differentials, Modeling and Optimization, L'Hopital's Rule

3RD QUARTER: Finding Areas (Finite Sums, Geometrically, Integrally), Fundamental Theorem of Calculus, Properties of Integrals, U-Substitution, Integration by Parts, Differential Equations, Modeling with Integration

4TH QUARTER: Area, Volume (Planar Base, Revolution), Integral as Net Change, AP Test Prep



RELIGION

9TH GRADE

SEMESTER ONE:

INTRODUCTION TO THE SACRED SCRIPTURES

The purpose of this course is to give students a general knowledge and appreciation of the Sacred Scriptures. Through their study of the Bible, they will come to encounter the living Word of God, Jesus Christ. In the course, they will learn about the Bible, authored by God through Inspiration, and its value to people throughout the world.

SEMESTER TWO:

WHO IS CHRIST?

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

RELIGION

10TH GRADE

SEMESTER ONE:

THE PASCHAL MYSTERY

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

SEMESTER TWO:

THE CHURCH

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

RELIGION

11TH GRADE

SEMESTER ONE: THE SACRAMENTS

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

SEMESTER TWO: MORALITY

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



RELIGION

12TH GRADE

SEMESTER ONE: CHURCH HISTORY

The course exposes students to the history which results in today's Church. By completing this course, students have an insight into their own personal Christian history and to God's call of all persons to holiness and service.

SEMESTER TWO: WORLD RELIGIONS

The purpose of this course is to help the students understand the manner in which the Catholic Church relates to non-Catholic Christians as well as to other religions of the world. This course must also clarify what is compatible with the Catholic Faith and what is not, and why, thus containing an apologetics component.





CHOIR

Grades Offered: All Grades

Choir is available to all students, regardless of experience. A wide range of music will be studied.

High School Choir participates in a variety of concerts & performances throughout the school year.

ART

Grades Offered: All Grades

In this choice-based class, students will be responsible for researching, generation of ideas, persistence, and reflecting on their learning. Students will view, read about and discuss current art issues. Students will learn the fundamentals

of design as applied to drawing, painting, and printmaking. Media will be pencils, charcoal, pastels, watercolors, tempera, acrylics, and inks. Ceramics methods taught include coil, slab, slump, extrusion, and pinch techniques. The use of glazes, underglazes, sgraffito, slip, and several firing methods will be experienced. Sculpture techniques involve fibers, plaster, wood, wire, glass, and metal. Cross-curricular links to science, math, and history will be explored. Studies include art history, art criticism, and aesthetics. Community links will be accessed through field trips, guest artists, and community based projects.

BAND

Grades Offered: All Grades

Student musicians may participate in the Cathedral Band during their high school years. During this time, students enhance their knowledge of their instrument, emphasize tone control, scales and complex rhythms. They also strengthen individual and ensemble tone production, articulation, and range. The band also marches at the Homecoming and St. Patrick's Day parades and participate in four concerts. They have opportunities to participate in Solo and Ensemble, High School Honors Band, All-State, State Solo and Ensemble, and Jazz Ensemble.





SCIENCE

BIOLOGY

9th Grade

Biology is the study of living things, their parts, their histories, and their roles in the environment. During this course, students use a variety of assignments, hands on activities, labs, and projects to discover, analyze, and connect to the living world. Students describe the structure and function of different types of cells. They understand the make-up and role of macromolecules and that the processes within the cell allow it to maintain homeostasis. Students recognize that the instructions for making organisms are contained within genes which are composed of DNA and located in chromosomes. They explain the mechanism for protein production. They diagram how mutations and the random distribution of genes from each parent provide genetic variation and become the raw material for evolution. Students analyze patterns of genetics using Punnett squares. Students research genetically modified organisms, how and why they are created, and their possible effects on humans and the environment. Students describe the processes of photosynthesis and cellular respiration and how energy is transferred through food webs. They understand the dependence of organisms on each other and on resources within ecosystems. Students recognize that evolution is the result of genetic changes that occur in constantly changing environments. They illustrate how the consequences of natural selection and differential reproduction have led to the great biodiversity on Earth.

CHEMISTRY

10th Grade

Lab safety, Scientific Method, Measurement, The Atom, Period Table, Electron Configuration, the Mole, Chemical Reactions, Stoichiometry, Gases/Gas Laws, Aqueous Systems, Colligative Properties.

ADVANCED CHEMISTRY

Offered to 11th & 12th Grade

Classification of Matter, Properties, Atomic Structure, Chemical Equations, the Mole, Stoichiometry, Aqueous Solutions, Chemical Reactions, Thermochemistry, Quantum Mechanics, Chemical Bonding & Equilibrium, Acid/Base Reactions, Electrochemical Cells and Hydrocarbons.

PHYSICS

Offered to 10th, 11th & 12th Grade

Measurements, Metrics, Linear Motion, Falling Objects, Vectors, Projectiles, Forces, Energy, Power, Momentum, Collisions, Rotational Motion, Waves, Sound, Light, Mirrors, Lenses, Lego Robotics.

ELECTRONICS

Offered to 10th, 11th & 12th Grade

Lab Safety, Soldering, Measurements/Meters, Building Circuits, Current, Voltage, Resistance, Ohm's Law, Electromagnetic Devices, Motors, Circuit Analysis, Capacitors, Diodes, Transistors, Digital Circuits, Logic Circuits.

Astronomy & Planetary Science

Offered to 11th & 12th Grade

Earth Science encompasses the interactions within and between Earth systems, including topics in Astronomy, Meteorology, Geology, and Oceanography. Students explain how both fluids and solids move within Earth systems and how these movements form and change their environment. They use the theory of plate tectonics to explain a wide variety of Earth features and geological processes and how hazards resulting from these processes impact humans. Students explain how the oceans and atmosphere move around the planet and how the movements affect climate and weather. They explore the effects of severe weather on society. Students explain features and processes related to surface and groundwater and describe the sustainability of systems in terms of water quality and quantity. Students describe the life cycle of a star and how our planet fits into the solar system, galaxy, and universe.

SCIENCE IN SOCIETY

Offered to 11th & 12th Grade

Science in Society examines the role of science in our everyday lives. Current topics include Environmental Science and Forensic Science. Environmental Science uses topics in Biology, Chemistry, Physics, and Earth Science to study the interrelationships of the natural world and identify and analyze environmental problems. Students evaluate risks associated with these problems and examine solutions for resolving or preventing them. Students discuss Earth's systems and the resources each provides. They review ecosystem structure and energy flow, describe a population, and study the impact of human population growth. Students study land and water use, including forestry, agriculture, urban development, and mining. They analyze human energy consumption and research alternative energy sources. Students describe different types of pollution and their health and economic impacts. Students study climate change and possibilities for Earth's future.

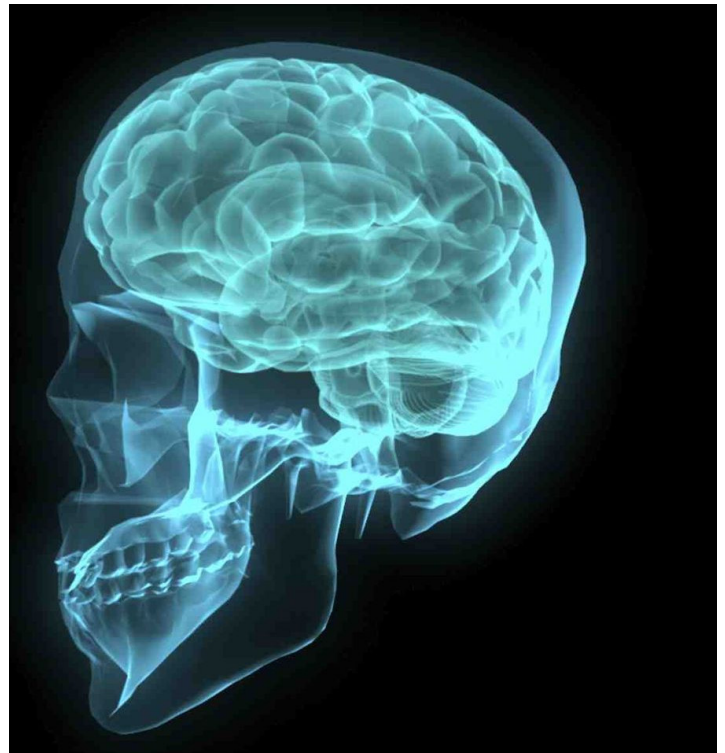
Forensic Science is the application of science concepts and skills to the criminal justice system. It incorporates Biology, Chemistry, Physics, Entomology, Earth Science, and Anatomy & Physiology. Students use various scientific techniques to analyze physical and trace evidence and explain how to process a crime scene and collect and preserve evidence. They study organic and inorganic analysis of hair, fibers, and paint. Students learn about toxicology and arson and explosion investigations. Students understand how to use serology, DNA, and fingerprints as evidence. They describe how to use ballistics and tool markings in an investigation. This course emphasizes the value of the crime scene and related evidence and the services of what has become known as the crime laboratory.



AP BIOLOGY

Offered to 11th & 12th Grade

Advanced Placement Biology takes the subject of living matter to a deeper level. Students will review concepts learned in basic biology and chemistry, then use their background knowledge in deeper biological investigations. Topics covered include cells and cellular processes; DNA, genetics, and biotechnology; viruses and microorganisms; molecular basis of evolution and relationships of lifeforms; ecological systems; animal body systems. This course also includes a number of labs required by The College Board. Students explain how the process of evolution drives the diversity and unity of life. They explain how biological systems utilize free energy and molecular building blocks to grow, to reproduce and to maintain dynamic homeostasis. Students describe how living systems store, retrieve, transmit, and respond to information essential to life processes. They analyze how biological systems interact, and how these systems and their interactions possess complex properties. Students use math, representations, and models to communicate and solve problems. They use scientific questioning, plan and implement data collection strategies, and analyze and evaluate data. Students work with scientific explanations and theories, and connect and relate their knowledge in and across domains.



ANATOMY & PHYSIOLOGY

Offered to 11th & 12th Grade

Anatomy and Physiology is the study of the structures of the human body and their functions. Dissections enhance students' understanding of organ placement within the body and the way in which all of the body's systems depend on each other. Model building allows students to investigate the function of organ systems while diagramming helps students learn organ placement and structure. Students describe the structure and organization of each body system's major organs. They describe each organ's placement within the body. Students explain the functions of each major organ and how the organs work together to maintain homeostasis. They explain the consequences of homeostatic imbalance. Students describe the basic steps of development of each system. Students demonstrate proper laboratory procedure, dissection technique, and some healthcare techniques such as taking blood pressure. The main goal of this course is for students to demonstrate the skills and knowledge necessary to maintain their own health and understand the vocabulary needed to communicate with healthcare professionals.





LANGUAGE

All Grades

Spanish is offered from a teacher in the classroom.

We also offer a variety of other language options via MVS Online: <https://michiganvirtual.org>



Including:

- American Sign Language
- German
- French
- Chinese
- Japanese
- Latin



JOURNALISM/YEARBOOK

Offered to 12th Grade

As a class, students will write a book to memorialize the school year. Students will design pages, collect and/or take photographs, interview staff & students, and write summaries & captions to capture the school year's middle and high school events. Students will also learn about media, focusing on journalism, and write a bi-weekly newspaper.



PE/HEALTH

All Grades

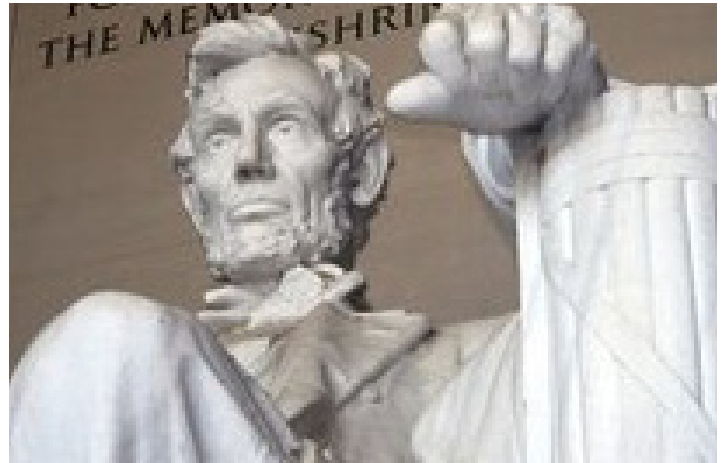
Physical education is designed to develop motor skills, knowledge and behaviors for active living, physical fitness, sportsmanship, self-efficacy and emotional intelligence.

SOCIAL STUDIES

U.S. HISTORY

9th Grade

Understand the implication and results of the Civil War and Reconstruction, Examine Expansion and Immigration, Understand Imperialism, Examine World War I and post-World War I, Understand the 1920's and the Great Depression, Examine causes and effects of World War II, Understand the Cold War, Examine the 1960's and 1970's, including an intensive study of the Vietnam War, Look at political and historical problems facing the nation today, Understand the contributions of important historical figures, and Define and relate important historical events, and examine the Constitution.



WORLD HISTORY

10th Grade

Provide a global history, Examine the history of societies, Understand the relationship between past societies and cultures and today's societies and cultures, Appreciate diverse world cultures and their development, Understand the chronology of the World History, Identify historical figures and events, Relate in writing historical significance, Focus on early civilizations, including Greeks, Romans and Christians, Focus on Middle Ages, including Feudalism, Crusades, Renaissance, Exploration and Colonization, Focus on revolutions, nationalism and imperialism, Focus on causes and effects of world wars on modern society, and Understand the developments and dictatorships, democracies, socialism and communism.

ECONOMICS

11th Grade

Achieve a basic understanding of the general principles of economics, Acquire an understanding of the law of supply and demand, Grasp the fundamentals of the banking system, Understand our National Economy, Identify and discuss current topics in the American Economy today, Gain some of the skills needed to be effective consumers, and examine the works of Dave Ramsey and his comprehensive study on how to eliminate debt.

GOVERNMENT

11th Grade

Consider the ways in which our governmental system is organized, the ways in which it is controlled, and the ways in which it functions, Understand the concept of citizenship, Learn all aspects of the governing process: the making of public policies, the execution of these policies, and the selection of those who make and execute those policies, Realize that Congress, as the legislature body for the nation, is the central institution of our representative's democracy, Acquire an understanding of the decisive role the President and his Administration play in the government and politics of American Democracy, Facilitate an understanding of the federal "judicial department" - and particularly, the Supreme Court of the United States, and Undertake a comprehensive study of the Constitution.

AP GOVERNMENT

Offered to 11th & 12th Grade

Teacher Approval Needed



STUDENTS PARTICIPATE IN A SCHOOL-WIDE SERVICE PROJECT THAT FOCUSES ON THE VIRTUE FOR THAT MONTH.

September:

PRUDENCE (SOUND JUDGMENT)

Enables one to reason and to act rightly in any given situation—"right reason in action."

October/November:

JUSTICE (FAIRNESS)

Enables one to give to each, beginning with God, what is due him.

December/January:

THEOLOGICAL VIRTUES FAITH, HOPE & LOVE

Share in Gods; graces with a firm disposition to do the good.

February/March:

TEMPERANCE (SELF-CONTROL)

Enables one to be moderate in the pleasure and use of created goods.

April/May:

FORTITUDE (COURAGE)

Enables one to endure difficulties and pain for the sake of what is good.

- St. Gregory of Nyssa

"The goal of a virtuous life is to become like God."

ST. MARY
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