ST. MARY ACADEMY
Bay View

Middle and Upper School Program of Studies 2021 – 2022

"Nothing is more conducive to the good of society than the education of women."
Catherine McAuley

Revised Dec 1, 2020

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MISSION STATEMENT

St. Mary Academy – Bay View is an independent, Catholic school serving a diverse population of girls from Preschool through Grade 12.
In the tradition of the Sisters of Mercy, we foster academic excellence in an innovative and creative learning environment. We are committed to empowering each student to be a confident, independent, compassionate and socially conscious young woman who fully lives her faith.

VALUES

We support and actively implement the following Mercy Core Values.

- Compassion and service
- Educational excellence
- Concern for women and women's issues
- Global vision and responsibility
- Spiritual growth and development
- Collaboration

Ultimately, therefore, Bay View strives to graduate a woman who fully lives her faith and embodies the ideals of Catherine McAuley.

OBJECTIVES

The student will be enabled:

- to use acquired knowledge that is permeated with Judeo-Christian values;
- to meet the challenges of post-secondary education;
- to recognize and create experiences which foster cooperation and interdependence;
- to value diversity within the global community;
- to discern and promote moral and aesthetic values;
- to grow in appreciation of her dignity and potential in contemporary society;
- to involve herself in social, political, civic and religious activities that will stimulate interest and participation in contemporary issues;
- to assume responsibility for her on-going educational and personal development;
- to actualize the above objectives so as to pursue a life that is integrated and meaningful.

COURSE CREDITS

Course selection for the next academic year starts in January. Students will meet with their school counselor within the determined time frame to select their courses for the following academic year.

Courses run for a half or full school year. Completion of the course with a passing grade provides credit toward graduation. Students receive one credit for the successful completion of a full-year course, and a half-credit for a half-year course. No credit is given for courses that are not completed for reasons of withdrawal, incompletion or failing work.

Students who fail a major subject must repeat this subject in an approved summer course. A student may not repeat this subject the following year. Upon successful completion of said subject, the new grade will be recorded on the transcript and the failing grade will be adjusted to a D.

REQUIRED COURSE LOAD

Every Middle School student will be enrolled in courses equivalent to six credits for each academic year. Every Upper School student will be enrolled in courses equivalent to six and one half (6.5) credits for each academic year in addition to Physical/Health Education. There are three additional components that round-out the Bay View graduate including a Mercy Project, the Career Launchpad, and a Passion Project. Each are offered across years and are more fully explained in this guide

REQUIREMENTS FOR GRADUATION

St. Mary Academy – Bay View is accredited by the New England Association of Colleges and Secondary Schools. Every student must earn a minimum of 26.25 credits including the following distribution of courses:

Theological Studies	4	Credits
English	4	Credits
Mathematics	3	Credits
Science	3	Credits (Biology, Chemistry & Physics)
Social Studies	3	Credits
World Language	3	Credits (same language)
Electives	2.5	Credits
Physical/Health Education	2	Credits
Fine Arts	.5	Credit

Computer Literacy	.5	Credit
Mercy Project	.25	Credit
Career Launchpad	.25	Credit
Passion Project Launchpad	.25	Credit

DESCRIPTION OF LEVELS

Middle School

The Middle School Program consists of rigorous core academic subjects for all learners. These courses are arranged sequentially, each building on the former and demanding more of the students. All subjects are homogeneously grouped, with the exception of math in grades 7 and 8. Seventh-grade students are placed in either Math 7 or Accelerated Math 7. Eighth-grade students are placed either in Math 8 or Algebra I Honors. Math placement is based on a variety of indicators including, but not limited to, results of the admission test, a math placement exam, standardized test scores, report card grades, and teacher recommendations. Eighth-grade students receive the recommendation of their current teachers for appropriate level placement in high school. In addition, enrichment opportunities are provided throughout the year for students to attend cultural events and take field trips that are aligned with the curriculum.

Upper School

The college preparatory curriculum at St. Mary Academy – Bay View is designed to challenge all students. Keeping in mind that students differ in learning style and ability, courses differ by level in the following areas:

- The presentation of material will be compatible with students' abilities varying in pace, complexity, and depth.
- Independent research projects will vary by type, number assigned, and amount of teacher direction.
- Assessments of students will be designed according to the material at the level, differing in type, evaluative criteria, and format.
- Supplementary topics suited to the talents and interests of students will be incorporated at the discretion of the teacher.

THE ADVANCED PLACEMENT PROGRAM is a cooperative educational endeavor of the College Board, participating colleges/universities, and St. Mary Academy – Bay View. The Advanced Placement (AP) Program is provided as part of the curriculum to encourage students who have demonstrated superior achievement. This program challenges and stimulates students, accelerates learning, individualizes education, and indicates to the public that this school values intellectual achievement and academic excellence. Students are presented with college-level work and are evaluated according to college standards by The College Board.

THE HONORS PROGRAM is designed to challenge students to pursue their course material from a broader perspective and in greater depth. It also introduces students to the research and seminar technique at an early stage in their high school years and instills in them the habit of creative and critical thinking. Independent assignments are a characteristic feature of the Honors Program.

Honors level courses cover the same material as Level 1 courses but do so in ways that demand significantly greater student independence, increased quantity and complexity of quantitative work or text complexity, superior reading comprehension skills, and greater ability to cope with and make sense of complexity, ambiguity, abstraction, and theoretical work.

LEVEL 1 is designed to challenge students to pursue their studies in greater depth than required at a level 2 placement. The courses at this level are designed to allow students to realize their potential and to perform accordingly. Instruction at this level includes the development of critical and creative thinking and some additional independent assignments.

LEVEL 2 is designed to challenge college-bound students to pursue their studies. Instruction at this level emphasizes required course work that includes the successful completion of reading/writing assignments and projects as well as the development of critical and creative thinking and some additional independent assignments.

Level Placement and Appeal Process

Students are placed in courses that will stretch them academically. Placement in honors or AP courses have specific prerequisites aligned to them. The prerequisites consider academics, related testing, motivation, and the student's ability to work independently in rigorous classes.

In the rare instance that a student is recommended to move down a level by her teacher, the student, parents/guardians, school counselor and the Director of Student Services will be notified. A discussion will be had with all parties before a change is made.

Students who are not recommended for an Honors or AP course may appeal the decision within a specified process. The process allows students to present a rationale and a strategy that would support her ability to engage in the class successfully. The presentation is made to the Vice Principal of Academics, relevant department chair, and the student's school counselor. The student and team will be provided a rationale about what prerequisites are suggesting the student is not prepared for the desired course. The appeal must be sought before March 1 of the current school year in anticipation of taking the course the following school year. Students may initiate the appeal by notifying their school counselor. The decision will be made within two weeks of their presentation.

	Strong	**Moderate**	**Weak**
Alignment to future goals and plans	The student has specific academic goals that require a course of this depth and rigor.	The student has general goals to pursue further study in this academic area.	The student wants to accrue additional AP or honors classes in order to apply to competitive colleges.
Plans to support success	The student has a thoughtful and specific plan outlined to support her learning.	The student has some strategies identified to be successful in the class.	The student has expressed little beyond a commitment to access help as needed.
Prior academic history in the subject area	The student provides a clear and compelling explanation of why she is ready for a more rigorous course in the subject area, including evidence of her growth, progress, and more recent successes.	The student is able to show some evidence and reflection about why she is ready for a more rigorous course. It may be more generalized and not specifically related to this area.	The student makes claims about academic growth without any specific evidence or examples. Course grades rely on retakes of exams or extra credit.

Students who are new to Bay View will be placed in courses following a review of their entrance exam, prior school assessments, transcripts and teacher recommendations. All students will take a math placement exam and students entering 9th grade who wish to take AP biology will also take a placement exam. Specific requirements are listed within each subject area.

THEOLOGICAL STUDIES DEPARTMENT

The Theological Studies Department provides students with a solid theological foundation to enable the pursuit of life's ultimate meaning and purpose and to explore the deeper dimension of the human in relation to God. The department seeks to empower students to live lives of faith expressed in the unfolding of their created uniqueness and in the living of just interrelationships in the context of the global community. The department provides students with clear doctrine, intelligent reading of the Scriptures, and moral guidelines according to the teachings of the Catholic Church. It fosters that sense of justice grounded in the Judaeo-Christian tradition which enables them to respond to the challenges of their world and in so doing to expand the reign of God.

MERCY CHARISM INTEGRATED INTO THE MIDDLE AND UPPER SCHOOL CURRICULUM

The story, vision, and mission of Catherine McAuley, foundress of the Sisters of Mercy, is woven throughout the entire theological studies curriculum. Catherine's Catholic faith provided her the pathway to God and to her experience of Jesus the Christ whose face she came to see in the poor whom she served and to whom she ministered. Catherine wrote that "…our center is God from whom all our actions should spring as from their source."

As the students progress through their studies of doctrine and scripture, they are brought into deeper awareness of the dignity of all life, a dignity that arises from the Divine call into being and of the rights due all elements of creation because of their very nature as created by God. They also come to understand the manner of authentic interaction. The students, through their study and guided experiences, are also opened to the need for prayer and the sacraments which Catherine saw as the sources from which to draw the strength necessary to bring truth to a world conflicted and often blind to the unseen Truth is at the heart of all. Thus, students are provided with the foundational understanding that led to Catherine's understanding of the world and of her call to ministry which is given contemporary expression in the Critical Concerns of the Sisters of Mercy – the concerns for Earth, Immigration, Nonviolence, Racism and Women.

Leading the students to discover their relationship with God through their study and contemplation of Jesus the Christ, God Incarnate, the teachers of the Theological Studies Department are sharing in Catherine's transformative educational ministry to have "Jesus Christ be formed in us," and like her, to aid them in having the Christ "be recognized in our conduct." Thus they share in her insight and continue her story.

GOALS

Students who graduate from St. Mary Academy – Bay View, having completed the Theological Studies Program, will:

- recognize their being in relationship with God and express in worship, prayer, and service the faith that is in them;
- express their created uniqueness through personal choices and lifestyles;
- understand and appreciate the ways in which others find and respond to the divine Presence in the world;
- make informed decisions based on a clear understanding of the Judeo-Christian tradition, integrating a relationship between personal conduct and social accountability;

- demonstrate understanding of the interdependence of all life through reverence for the environment as God's stewards on the earth.

4602 – Religion **Grade 6**
1 Credit

This course focuses on the Hebrew Scriptures and the main theme of covenant faithfulness between God and humanity. Students will develop an understanding, through study of the people and events within Scripture, of who God is, of what it means to be a person of faith, and about how to cultivate a faithful relationship with God.

4702 – Religion **Grade 7**
1 Credit

This course begins with a focus on God as Trinity. Students will then examine the life and ministry of Jesus Christ, as recorded in the four Gospels of the Christian Testament This course also includes an exploration of how we experience Jesus in the celebration of the Seven Sacraments and how these sacraments strengthen us to actively live our faith in the world today.

4801 – Religion **Grade 8**
1 Credit

This course begins with concentration on moral decision making. Students will develop an understanding of the Ten Commandments and Beatitudes as a basis for forming one's conscience and acting for the good. Also included in the second half of this course is a survey of the major events and people that helped shape the history of the Catholic church and the lessons this history offers us today.

4900 – FOUNDATIONS OF FAITH – LEVEL 1 **Grade 9**
1 Credit

This course begins with the premise that the students are coming to St. Mary Academy - Bay View from a diversity of religious education experiences and backgrounds. The course serves as a survey of and an introduction to the fundamental tenets of Catholic Christianity so as to provide the students with a common vocabulary and a unified vision of the whole of the Catholic heritage. The students begin to foster an appreciation for the complexities of theological inquiry through their probing into the religious dimension of human experience. Students also examine the human person as the recipient of revelation and consider developmental and cultural factors that influence their response to the God who reveals. Factors that contribute and inhibit self-valuation and the development of personal uniqueness are also studied. In addition, students are introduced to the charism of Catherine McAuley, the founder of the Sisters of Mercy. Thus, the students are provided with the foundation for later theological study.

Studying this charism, the students are guided to discover what it means to look at themselves, others, and the world through the lens of mercy. All components of the course serve to provide the students with the foundation needed for their later theological study.

4000 – FUNDAMENTALS OF CHRISTIAN ETHICS – LEVEL 1 **Grade 10**
1 Credit

This course enables students to think systematically about the Christian moral life within the framework of the Catholic tradition by examining the major foundational themes in Christian ethics, such as creation, moral development, sin, conscience, virtue and moral character, freedom and moral decision-making, grace, prayer and social justice.

4100 – CHRISTOLOGY – LEVEL 1 **Grade 11**
.5 Credit

This course undertakes a theological investigation of the person and work of Jesus the Christ. The course surveys the biblical testimony, early Christian teaching, and contemporary reflection on Jesus as the Christ. The course takes as its starting point and context the central faith conviction of the Church that Jesus Christ is the one in whom God completes and perfects revelation and accomplishes the salvation of the whole world. Further, because Jesus is understood to be the exemplar of authentic human living, the students also study the anthropological significance of the person and work of Jesus.

4102 – CATHOLIC SOCIAL TEACHING – LEVEL 1 **Grade 11**
.5 Credit

This course is designed to raise students' awareness of important social issues and to examine the complexity of community and global issues in the light of the Scriptural values of justice, peace and love. Students learn the fundamentals of Catholic social teaching so as to apply these core principles in the analysis of social and economic injustices. The course aims to have students understand the issues and to identify the dynamics necessary for genuine social change.

4202 – CHRISTIAN LIFESTYLES AND TRANSITIONS – LEVEL 1 **Grade 12**
.5 Credit

This course revisits such topics as communication, dating, friendship, and sexuality, as well as the topics of work, money and possessions, so as to facilitate the student's on-going development of methods to cope with the opportunities, challenges, and tasks ahead as she transitions into adulthood. The student also examines lifestyle issues and choices in light of the Gospels and is challenged to consider both the various characteristics and vocations which reflect a mature Christian lifestyle.

4201 – RELIGIONS OF THE WORLD – LEVEL 1 **Grade 12**
.5 Credit

This course is an introductory survey of religious traditions of the major religions of the world. The course also visits the primal traditions of the Aborigines of Australia and the Native Americans of the North Plains.

4107 – MERCY PROJECT **Grades 9, 10 and 11**
.25 Credit

The Mercy Project is an opportunity for the student to give active expression to her growing understanding of what it means to be a young woman of mercy. Inspired by Gospel Values and the Critical Concerns of the Sisters of Mercy (Earth, Immigration, Nonviolence, Racism,

Women), the student is asked to engage in direct service that benefits the lives of people in need.

The student is required to complete 10 hours of independent direct service during both Grades 9 and 10 (20 hours total). During Grade 11, students, together with one or two classmates, will complete a major project that asks them to identify an issue on the local, national, or global level; plan a project that directly addresses the issue and benefits people in need; work together to bring the plan to fruition; and educate their classmates on both the issue and their project.

Though required for graduation, this program is not factored into the computation of the student's grade point average.

ENGLISH DEPARTMENT

As a discipline that promotes the value of the study of the humanities, the English Department strives to broaden students' horizons by leading them to an appreciation of the diversity of human experience and the beauty of the human spirit through the study of high-interest and wide-ranging literature in its various forms—fiction, nonfiction, poetry, and drama. We believe that such exposure will help students to develop a strong moral code as well as an awareness of themselves as individuals who are empowered to contribute to the humanization of society in a world focused on science and technology. In addition, students gain the skills necessary to express themselves in both written and oral platforms to a variety of audiences. Close reading and analytical as well as critical thinking skills are stressed in every aspect of the English curriculum in order to equip students with the tools they need to take their place in the global community as inquisitive, creative, articulate and cultured individuals.

GOALS

Upon completion of the English Program, the student will be able to:

- communicate information and personal opinion clearly, concisely, and completely in a manner appropriate to the given context;
- demonstrate proficiency and comprehension in written and spoken English;
- identify and use appropriate research strategies;
- use technology responsibly as an effective communication tool.

The student will know:

- a wide range of literature from many time periods and cultures as expressed in various genres;
- various research strategies including the use of technological resources.

The student will appreciate:

- the diversity of literature;
- the aesthetic dimension that is reflected in literature;
- the place of the moral perspective in reading and responding to literature.

Ultimately, the student will learn from literary experiences (reading, writing, and dialoguing), values and skills empowering her to contribute to the humanization of society.

2600 – English 6 Grade 6
1 Credit

The Grade 6 English curriculum blends grammar, vocabulary, writing, speaking and listening skills, and literature. As Grade 6 is a transition year from lower school to middle school, it is important to build on students' learnings in English 5 and establish a firm base for Upper School English courses as well. The class structure uses a combination of whole class and individual instruction, as well as cooperative group work, projects, and classroom discussions, and thematic units, to support student learning in English 6. The course emphasizes four key features in alignment with Common Core State Standards: growth in reading comprehension of complex texts, writing in response to reading and research, flexible communication skills in speaking and listening, and effective use of language conventions and vocabulary. Content is organized into theme-based units focused on an essential question. Students are introduced to the Modern Language Association (MLA) format for papers. Students use iPads to access education applications in the classroom.

2700 – English 7 **Grade 7**
1 Credit

The Grade 7 English curriculum builds on skills learned in English 6 and blends grammar, writing, speaking and listening skills, vocabulary, and literature. Whole class, group, and individual instruction, combined with cooperative group work, projects, writing workshops, and thematic units, support student learning in English 7. The course emphasizes four key features in alignment with Common Core State Standards: expanding reading comprehension of complex texts, improving expository writing skills in response to reading and research, flexible communication skills in speaking and listening, and effective use of language conventions and vocabulary. Content is organized into theme-based units focused on an essential question. Students are introduced to the Modern Language Association (MLA) format for papers. Students use iPads to access education applications in the classroom.

2800 – English 8 **Grade 8**
1 Credit

The Grade 8 English curriculum builds on skills learned in English 7 and blends grammar, writing, speaking and listening skills, vocabulary, and literature. As Grade 8 prepares students for Upper School English courses, the goal is to achieve competency in essential English Language skills. Whole class, group, and individual instruction combined with cooperative group work, projects, writing workshops, and thematic units, support student learning in English 8. The course emphasizes four key features in alignment with Common Core State Standards: reading comprehension of high-level complex texts, analytical writing in response to reading and research, flexible communication skills in speaking and listening, and effective use of language conventions and vocabulary. Content is organized into theme-based units focused on an essential question. Students are introduced to the Modern Language Association (MLA) format for papers. Students use iPads to access education applications in the classroom.

2910 – ENGLISH 9 – HONORS **Grade 9**
1 Credit

Prerequisite: Successful completion of English 8 and teacher recommendation

English 9 is a required English course for all freshmen at Bay View. English 9 Honors covers the same material as English 9- 1 but does so in ways that demand significantly greater student independence, increased quantity and text complexity, superior reading comprehension and writing skills, and greater ability to cope with and make sense of complexity, ambiguity, abstraction, and theoretical work.

2911 – ENGLISH 9 – LEVEL 1 **Grade 9**
1 Credit

The focus of this course is the study of the basic elements of prose fiction and poetry. In addition, students concentrate on mastering the skills of writing narrative, descriptive, and expository essays (including responses to literature). Students engage in a short research project and learn appropriate MLA formatting for formal papers. Students also learn the fundamental skills for delivering oral presentations. Grammar and vocabulary are addressed by reading and writing in conjunction with the course material. The number and complexity of literary selections is determined by the level of the individual class. Supplementary reading also differs in number and complexity relative to the class level**.**

2007 – ENGLISH 10 – HONORS **Grade 10**
1 Credit

Prerequisite: Successful completion of English 9 and teacher recommendation

English 10 is a required English course for all sophomores at Bay View. English 10 Honors covers the same material as English 10- 1 but does so in ways that demand significantly greater student independence, increased quantity and text complexity, superior reading comprehension and writing skills, and greater ability to cope with and make sense of complexity, ambiguity, abstraction, and theoretical work.

2008 – ENGLISH 10 – LEVEL 1 **Grade 10**
1 Credit

The focus of this course is the study of the basic elements of nonfiction and drama. In addition, students concentrate on mastering the skills of writing narrative, descriptive, and expository essays (including responses to literature). Students engage in a short research project and learn appropriate MLA formatting for formal papers. Students also learn the fundamental skills for delivering oral presentations. Grammar and vocabulary are addressed by reading and writing in conjunction with the course material. The number and complexity of literary selections is determined by the level of the individual class. Supplementary reading also differs in number and complexity relative to the class level**.**

2100 – AP ENGLISH LANGUAGE AND COMPOSITION **Grade 11**
1 Credit

Prerequisite – Successful completion of English 10 and teacher recommendation

The AP English Literature and Composition course aligns to an introductory college-level rhetorical analysis and argument course. The course cultivates the reading and writing skills students need for college success and for intellectually responsible civic engagement. The reading and writing students do in this course aims to deepen and expand their understanding of how written language functions rhetorically: to communicate writers' intentions and elicit readers' responses in particular situations. The course cultivates the rhetorical understanding and use of written language by directing students' attention to writer/reader interactions in the analysis of various formal and informal genres (letters, advertisements, political satire, personal narratives, scientific arguments, cultural critiques, and research reports). Students are required to take the Advanced Placement English Language and Composition Examination in the spring.

2112 – ENGLISH 11 – HONORS **Grade 11**
1 Credit

Prerequisite: Successful completion of English 10 and teacher recommendation

Unless enrolled in AP English Language and Composition, all juniors at Bay View are required to take English 11. English 11 Honors covers the same material as English 11- 1 but does so in ways that demand significantly greater student independence, increased quantity and text complexity, superior reading comprehension and writing skills, and greater ability to cope with and make sense of complexity, ambiguity, abstraction, and theoretical work.

2113 – ENGLISH 11 – LEVEL 1 **Grade 11**
1 Credit

Prerequisite – Successful completion of English 10

The focus of this course is the study of American Literature, organized by the genres of fiction, poetry, and drama. Nonfiction selections are paired thematically with individual works. The number and complexity of literary selections is determined by the level of the individual class. Supplementary reading also differs in number and complexity relative to the class level**.** In addition, students concentrate on mastering the skills of writing expository essays (including responses to literature), synthesis essays, rhetorical analysis essays, and persuasive/argument essays. Students engage in a short research project and continue to learn appropriate MLA formatting for formal papers. Students also continue to practice the fundamental skills for delivering oral presentations. Grammar is addressed by reading and writing in conjunction with the course material. Vocabulary instruction seeks to augment students' knowledge of words encountered on the college level.

2200 – AP ENGLISH LITERATURE AND COMPOSITION **Grade 12**
1 Credit

Prerequisite – Successful completion of English 11 or AP English Language and Composition and teacher recommendation

The AP English Literature and Composition course aligns to an introductory college-level literary analysis course. The course engages students in the close reading and critical analysis of imaginative literature to deepen their understanding of the ways writers use language to provide both meaning and pleasure. As they read, students consider a work's structure, style, and themes, as well as its use of figurative language, imagery, symbolism, and tone. Writing assignments include expository, analytical, and argumentative essays that require students to analyze and interpret literary works. A research project is also part of the curriculum. The Advanced Placement English Literature and Composition exam in May is mandatory.

2207 – ENGLISH 12 – HONORS **Grade 12**
1 Credit

Prerequisite - Successful completion of English 11 and teacher recommendation

English 12 is a required English course for all seniors at Bay View. English 12 Honors covers the same material as English 12- 1 but does so in ways that demand significantly greater student independence, increased quantity and text complexity, superior reading comprehension and writing skills, and greater ability to cope with and make sense of complexity, ambiguity, abstraction, and theoretical work.

2208 – ENGLISH 12 – LEVEL 1 **Grade 12**
1 Credit

Unless enrolled in AP English Literature and Composition, all seniors are required to take English 12. The focus of this course is literary analysis in the study of narrative fiction, poetry, and drama from ancient times to contemporary literature, including many multicultural voices. The number and complexity of literary selections is determined by the level of the individual class. Supplementary reading also differs in number and complexity relative to the class level**.** The major writing components are expository responses to literature and literary analysis. Students also engage in a short research project and continue to learn appropriate MLA

formatting for formal papers. Socratic seminars expose students to college-level discussion formats and provide an opportunity to practice public speaking.

2914 – PUBLIC SPEAKING – HONORS **Grades 10, 11, 12**
.5 Credit

Prerequisite- None

This semester course is an activity-based speech communication program. Through a variety of activities, this course reinforces skills and techniques of the communication process to be effective speakers and listeners. The focus will be on formal and informal situations.

2915 - MULTICULTURAL WOMEN'S VOICES IN CONTEMPORARY LITERATURE - HONORS **Grades 11 and 12**
.5 Credit

Prerequisite- Successful completion of English 10

This semester course will introduce students to a variety of contemporary women writers who identify as either black, indigenous, or women of color. Students will explore the diversity of cultures as well as the commonality of women's experiences through short stories, novels, and poetry. Among the writers to be considered are Chimamanda Ngozi Adichie (Nigerian-American), Louise Erdrich (Native American), Toni Morrison (African-American), Jesmyn Ward (African-American), Sanda Cisneros (Mexican-American), Edwidge Dandicat (Haitian-American), and Joy Harjo (Native American).

MATHEMATICS & COMPUTER SCIENCE DEPARTMENT

The Mathematics and Computer Science Department provides an educational program in which students develop the critical-thinking, problem-solving, computational, and active learning skills essential for responsible decision-making and career success and informed citizenship.

St. Mary Academy – Bay View provides a sequential and comprehensive curriculum that gives opportunities for all students to become creative, critical thinkers and skilled problem-solvers who effectively use current technological tools. It is our goal as a department to provide the mathematical skills to solve problems in science, technology, and other fields.

The Mathematics core curriculum for all students will include topics in geometry, probability and statistics, as well as algebra with the appropriate use of technology in mathematics. All courses use the TI-Nspire CAS calculator, appropriate websites, online lectures, and support software.

All students are strongly encouraged to complete four years of mathematics while at Bay View.

To be well-educated and prepared for careers in a computing-intensive world, students must have a clear understanding of the concepts and practices of computer science. The Computer Science curriculum uses an inquiry-based approach, presenting open-ended problems in the context of computer science concepts and topics. These courses allow students to create and interact in a collaborative and cooperative atmosphere. Students become familiar with the many

ways in which computing enables innovation, and they analyze the potential benefits and negative effects of computing in a number of contexts.

The sequence of courses is in place to increase students' knowledge, confidence, and interest in Computer Science. These courses create a strong foundation and understanding for students no matter the course of studies they plan to follow after graduation. Ultimately, students will develop the skills necessary to select and use the appropriate technology for every task and to use all technology in an ethical manner.

All students in grades 9 - 12 must earn a minimum of a .5 credit in a technology related course in order to satisfy graduation requirements.

GOALS

Upon completion of the mathematics program students will be able to:

- develop an understanding of mathematical processes, facts and concepts;
- communicate mathematical ideas, processes, concepts and solutions graphically, algebraically, numerically and verbally;
- use algebraic, geometric, inductive and deductive reasoning to solve problems;
- use appropriate technologies to enhance the understanding of mathematics;
- use mathematics to support and defend her conclusions in any discipline;
- provide opportunities to recognize patterns, make generalizations, and test the validity of the hypothesis;
- demonstrate mathematical understanding through a variety of assessments;
- use and extend the connections among mathematical topics, between mathematics and other disciplines, and between mathematics and the real world;

Upon completion of the computer science program students will be able to:

- organize, analyze and interpret data in any form;
- introduce the fundamental concepts of computer science to all students;
- connect computer science to appropriate real world challenges as a means to motivate and empower, promote individual growth, and spark a desire for life-long learning;
- complement other disciplines and build upon as well as develop student knowledge;
- develop the skills, practices and knowledge to participate in a world that is increasingly influenced and shaped by technological advancements;
- adapt and prosper under constantly changing conditions;
- study facets of computer science in more depth and be prepared for entry into the workforce or college.

NOTE: Students in an honors level course will continue to be enrolled in an honors course provided they earn a semester grade of B+ or higher in their current course and have a teacher recommendation that honors level work is in their best interest. Students may take an honors level course provided they meet the prerequisites noted under each course description.

1600 – MATHEMATICS 6 **Grade 6**
1 Credit

Mathematics 6 begins by building on students' understanding of multiplication and division and equivalent fractions as a basis for understanding ratios and proportional reasoning. Work with

positive rational numbers continues as students build fluency with standard algorithms for fraction and multi-digit decimal operations. Formal work with expressions and equations also begins at this level as students use variables to represent relationships and solve problems. Students then extend their understanding of numbers to include negative rational numbers, absolute value as a distance, and coordinates of points in all quadrants of the coordinate plane.

Students extend their understanding of length, area, and volume as they solve problems involving the areas of triangles, special quadrilaterals, and polygons, and volume of rectangular prisms. Finally, formal work with statistics begins at this grade level in the final two units as students represent data in various ways and build their understanding of statistical variation.

There is a focus throughout the course on the Standards for Mathematical Practice. These practices should become the natural way in which students come to understand and do mathematics. While, depending on the content to be understood or on the problem to be solved, any practice might be brought to bear, some practices may prove more useful than others. In Grade 6, students should pay particular attention to precision of language as they begin to formalize ideas from elementary grades. As students begin to work with variables and develop fluency with algorithms and geometry formulas, they have the opportunity to make use of the structure of mathematics and describe regularity in repeated reasoning.

1700 – MATHEMATICS 7 **Grade 7**
1 Credit

Mathematics 7 builds on Grade 6 work by extending students' understanding of ratio to a more formal understanding of rate and its application with percentages. Students extend their understanding of operations with rational numbers to include negative rational numbers. Students then continue the work they started in Grade 6 in writing expressions and equations, laying the groundwork for their Grade 8 work with functions.

The course then turns to more formal methods for writing and solving multi-step equations and inequalities. Students also build on the Grade 6 work with proportional reasoning as they learn to scale 2-dimensional figures and to apply proportional reasoning to probability and statistical situations. Students gain fluency with area, surface area, and volume of 2- and 3-dimensional shapes composed of polygons, including right prisms and pyramids. They use the formulas for area and circumference of a circle to solve problems and understand the relationships among the components of a circle. The final unit of study lays the groundwork for high school geometry as students investigate informal proofs of key geometric relationships among triangles.

There is a focus throughout the course on the Standards for Mathematical Practice. These practices should become the natural way in which students come to understand and do mathematics. While, depending on the content to be understood or on the problem to be solved, any practice might be brought to bear, some practices may prove more useful than others. In Grade 7, reasoning and developing viable arguments are particularly important, as are modeling, the use of strategic tools, and precision of language.

1702 – ACCELERATED MATH 7 **Grade 7**
1 Credit

Prerequisite- Midyear review of Grade 6 Math with a semester grade of A or higher, teacher recommendation, and confirmed by successful completion of course.

The 7th grade honors math program is designed to be a fast-paced progression that covers the essential concepts in the 7th and 8th grade learning standards. Emphasis is placed on mathematical reasoning, non-routine problem solving, and algebraic connections among mathematical ideas. Active learning is emphasized by interactive visualizations and the use of manipulatives, communication skills via journals, cooperative learning groups, and the appropriate use of calculators and computers. The course provides students with the concepts and skills needed for success in Algebra I Honors.

1802 – MATHEMATICS 8 **Grade 8**
1 Credit

Grade 8 mathematics begins with congruence transformations of the coordinate plane, followed by exploration of similarity transformations, which contribute to students' conceptual understanding of slope. Students apply their previous understandings of ratio and proportional reasoning to the study of linear functions, equations, and systems, including a deep understanding of slope. They explore negative integer exponents and irrational numbers, and they deepen their understanding of geometric concepts by investigating and applying the Pythagorean theorem.

The Grade 8 course provides students the opportunity for a deep study of linear functions and their graphs, and problems involving linear functions and equations. Students also investigate bivariate categorical and numerical data. Work with numerical data builds on students' learning from earlier units around linear functions and modeling. Students also investigate and interpret the representations of nonlinear functions and compare them to linear functions. Finally,students extend their work in geometry to include angle relationships in parallel lines and triangles and the volume of cones, cylinders, and spheres.

There is a focus throughout the course on the Standards for Mathematical Practice. These practices should become the natural way in which students come to understand and do mathematics. While, depending on the content to be understood or on the problem to be solved, any practice might be brought to bear, some practices may prove more useful than others. In Grade 8, making use of structure in mathematics is particularly important, as are modeling, the developing viable arguments, and precision of language.

1900 – ALGEBRA I – HONORS **Grades 8 and 9**
1 Credit

Prerequisite – Midyear Review of Grade 7 Accelerated Math (semester grade of B+ or higher), or Grade 8 Math (semester grade of A or higher), at or above the 80th percentile for PSAT 8/9, teacher recommendation, and confirmed by the successful completion of the course.

Algebra I is a required mathematics course for all freshmen at Bay View. Algebra I Honors covers the same material as Algebra I-1 but does so in ways that demand significantly greater student independence, increased quantity and complexity of quantitative work, superior reading comprehension skills, and greater ability to cope with and make sense of complexity, ambiguity, abstraction, and theoretical work.

1912 – ALGEBRA I - LEVEL 1 **Grades 8 and 9**

1 Credit

The Algebra I course begins with connections to earlier work, efficiently reviewing algebraic concepts that students have already studied while at the same time moving students forward into the new ideas described in the high school standards Students formalize the concept of a function and extend their earlier middle school work with linear functions and equations. They review the univariate data representations they have studied previously and then explore statistical models for bivariate categorical and quantitative data. Students build on their understanding of integer exponents as they explore exponential functions and equations. They model situations with quadratic functions, formulate and solve quadratic equations, and begin to investigate simple root functions. Finally, throughout the course, students continue to use basic algebraic tools to represent problem situations and to solve important classical problems.

Throughout this Algebra I course, students continue to develop proficiency with mathematical practices that should become the natural way in which students come to understand, experience, and do mathematics. Mathematical reasoning, effective communication, making connections, and problem solving are key components of this program. Students need to have a sound understanding of functions and their multiple representations that they gain from a strong Algebra course. Algebra is an essential foundation for higher mathematics, but Algebra is also now accepted by most people as a foundation, not just for Advanced Algebra, Geometry, Trigonometry, Discrete Mathematics, Precalculus, Calculus, and Statistics, but for the knowledge required for participation in our democracy and for a successful economic life.

1913 – INTENSIFIED ALGEBRA I - LEVEL 1 **Grade 9**
1 Credit

In Intensified Algebra I, students focus on linear functions and equations, which provide the mathematical tools necessary for consolidating and representing what they learned in elementary and middle school about ratios and proportional reasoning. Students also study exponential and quadratic functions and equations. Finally, throughout the course, students learn to use basic algebraic tools to represent problem situations and to solve important classical problems. Students need to have a sound understanding of functions and their multiple representations that they gain from a strong Algebra course. Algebra is an essential foundation for higher mathematics, but Algebra is also now accepted by most people as a foundation, not just for Advanced Algebra, Geometry, Trigonometry, Discrete Mathematics, Precalculus, Calculus, and Statistics, but for the knowledge required for participation in our democracy and for a successful economic life.

Intensified Algebra I also draws on the latest advances in developmental and social psychology to help shape students' motivation, confidence, and ultimate success as learners. A core theme is developing the understanding that intelligence is malleable, or changeable, not fixed. Founded in powerful research from social psychology and neuroscience, students come to understand how their brains change as they learn, and apply that knowledge to challenging tasks. Through targeted lessons incorporated throughout the year, students apply the concepts of effective effort and attributions, as well as consider the significance of interpersonal skills, a sense of belonging, and motivation in learning. Intensified Algebra I transforms the way students think about themselves as learners, develops their motivation and commitment to high achievement, and fosters skills that sustain students' productive engagement and persistence in challenging academic work.

1903 – GEOMETRY – HONORS **Grades 9 and 10**
1 Credit

Prerequisite – Midyear review of Algebra I Honors (a semester grade of B+ or higher) or Algebra I (semester grade of A or higher), or PSAT 8/9 at or above the 80th percentile, teacher recommendation, and confirmed by the successful completion of the course.

Geometry Honors is a required mathematics course for all freshman or sophomores at Bay View. Geometry Honors covers the same material as Geometry I but does so in ways that demand significantly greater student independence, increased quantity and complexity of quantitative work, superior reading comprehension skills, and greater ability to cope with and make sense of complexity, ambiguity, abstraction, and theoretical work.

1904 – GEOMETRY – LEVEL I **Grades 9 and 10**
1 Credit

Prerequisite: Successful completion of Algebra I

This Geometry course begins with developing the tools of geometry, including transformations, proof, and constructions. These tools are used throughout the course as students formalize geometric concepts studied in earlier courses and extend those ideas to new concepts presented in the high school standards.

Once students have some tools with which to explore geometry, they begin to formalize geometric relationships involving angles, lines, triangles, quadrilaterals, and circles. Respecting a deeply rooted tradition, Geometry provides for students a first introduction to formal mathematical reasoning, logic, and proof, in which they are introduced to what constitutes the standards of evidence in modern mathematics. Students spend time creating viable arguments around triangle congruence and similarity, using transformations as the key underlying definition of congruence and similarity.

Their study of triangles includes trigonometric ratios and right triangle relationships. Students create arguments and solve problems with shapes represented both on and off the coordinate grid. Coordinate geometry provides a connection and reinforcement to ideas studied in Algebra I. Students extend their understanding of plane geometry to model the world they live in using three-dimensional shapes. Extending their understanding of area and volume from middle school, students are able to solve geometric modeling problems and analyze characteristics of three-dimensional shapes, including plane sections and solids of revolution. Throughout the course, students focus on developing logical arguments and using geometry to model their world.

There is a focus throughout the course on the Mathematical Practice Standards. These practices should become the natural way in which students come to understand and do mathematics. While—depending on the content to be understood or on the problem to be solved—any practice might be brought to bear, some practices may prove more useful than others. In a high school geometry course, communication, reasoning, and justification are particularly important, as are modeling, the strategic use of appropriate tools, and precision of language.

1908 – ALGEBRA II – HONORS **Grades 10 and 11**
1 Credit

Prerequisite – Midyear review of Geometry Honors (a semester grade of B+ or higher) or Algebra I and Geometry I (final grade of A or higher) and PSAT 8/9 at or above the 80th percentile, teacher recommendation and confirmed by the successful completion of the course.

Algebra II Honors is a required mathematics course for all sophomores or juniors at Bay View. Algebra II Honors covers the same material as Algebra II but does so in ways that demand significantly greater student independence, increased quantity and complexity of quantitative work, superior reading comprehension skills, and greater ability to cope with and make sense of complexity, ambiguity, abstraction, and theoretical work.

1906 –ALGEBRA II – LEVEL 1 **Grades 10 and 11**
1 Credit

This Algebra II course builds on these topics, further developing important algebraic and statistical ideas by extending techniques to solve equations and students' knowledge of functions by studying inverses and new function families: polynomial, radical, trigonometric, and rational functions. Students will also spend a significant portion of the school year studying probability and statistics.

The course begins with a study of arithmetic and geometric sequences. This provides an opportunity to connect to students' prior study of algebraic patterns while learning a new context. Students explore the relationship between a function and its inverse to extend their understanding of quadratic and exponential functions from Algebra I and are introduced to square root and logarithmic functions. Students also study algebraic operations with polynomials to develop new types of functions including higher degree polynomial functions and rational functions. Once students have an understanding of various types of functions, they are prepared to solve problems involving these functions which requires solving equations and inequalities, as well as systems of equations, that arise from the functions. Modeling is a big part of this course with functions as well as through the study of probability and statistical studies

Throughout Algebra II, students should continue to develop proficiency with the Common Core's eight Standards for Mathematical Practice. These practices should become the natural way in which students come to understand, experience, and do mathematics. Mathematical reasoning, effective communication with attention to precision of language, making use of the structure of mathematics, and modeling are key components of this program.

1000 – PRE-CALCULUS – HONORS **Grades 11 and 12**
1 Credit

Prerequisite – Midyear review of Algebra II Honors (a semester grade of B+ or higher), PSAT at or above the 80th percentile, teacher recommendation and confirmed by the successful completion of the course.

Pre-Calculus Honors is a course that prepares students for Advanced Placement Calculus or for any college-level calculus course. Pre-Calculus Honors covers the same material as Pre-Calculus 1 but does so in ways that demand significantly greater student independence, increased quantity and complexity of quantitative work, superior reading comprehension skills, and greater ability to cope with and make sense of complexity, ambiguity, abstraction, and theoretical work.

1001 – PRE-CALCULUS – LEVEL 1 **Grades 11 and 12**
1 Credit

This Pre-Calculus course is one in which students use functions, equations, sequences, series, vectors, and limits as tools to express generalizations and to analyze and understand a variety of mathematical relationships and real-world phenomena. Modeling is an overarching theme of this course, and students should expand and develop in-depth their use of functions and their

properties to choose appropriate models for real-world problem situations to answer meaningful questions. Students build on and expand their experiences with functions from Algebra I, Algebra II, and Geometry as they continue to explore the characteristics and behavior of functions (including rate of change and limits), and the most important families of functions that model real world phenomena (especially transcendental functions). Expanded work in functions includes polynomial, rational, radical, exponential, power, logarithmic, and trigonometric functions, including operations of functions, including composition of functions.

The expanded work in Pre-Calculus with more varied types of functions should move students toward the idea of functions as input/output processes with domains and ranges. Students should also move from simply thinking of a function in terms of individual inputs and outputs to considering the behavior of a function's values as the inputs vary over a bounded or unbounded interval.

1100 – AP STATISTICS **Grades 11 and 12**
1 Credit

Prerequisite - Successful completion of Algebra II Honors, midyear review of B+ or higher, and teacher recommendation.

Statistics is the art and science of collecting, organizing, analyzing, and drawing conclusions from data. This statistics course follows the well-respected Advanced Placement (AP) Statistics syllabus and focuses on four major themes: exploratory data analysis, designing studies, probability models and simulation, and statistical inference. The course is equivalent to at least a semester of statistics at most colleges and universities.

Many interesting applications of statistics in medicine, business, law, psychology, education, and environmental science are included in the AP course. Students are evaluated on their ability to communicate their statistical thinking effectively on the AP Exam. The AP Statistics syllabus includes all topics found in nearly any one-semester college introductory statistics class.

1101 – STATISTICS - HONORS **Grades 11 and 12**
1 Credit

Prerequisite – Successful completion of Algebra II Honors and a teacher recommendation.

Statistics Honors is an optional mathematics course for all juniors and seniors. Statistics Honors covers the same material as Statistics 1 but does so in ways that demand significantly greater student independence, increased quantity and complexity of quantitative work, superior reading comprehension skills, and greater ability to cope with and make sense of complexity, ambiguity, abstraction, and theoretical work.

1105 – STATISTICS – Level 1 **Grades 11 and 12**
1 Credit

Prerequisite – Successful completion of Algebra II

The purpose of this course is to introduce students to the major concepts and tools for collecting, analyzing, and drawing conclusions from data. Students are exposed to four conceptual themes: exploring data, planning a study, producing models using probability and statistics, and statistical inference. Unlike other math courses, this course includes a great deal of reading and writing. Students will be taught how to analyze statistical problems and not only develop the appropriate action but defend it in writing. During this course, students will use the capabilities

of the Nspire calculator and appropriate software to investigate, model, and solve problems. Students will create surveys, conduct surveys, and use the tools presented in the course to help draw reasonable projections. Students will see how statistics are presented in the news, on TV, the web and in the newspaper. Students will analyze these presentations and discuss their validity. By the end of the course students will be able to analyze statistical presentations made in the news and recognize flaws and missing information critical to making valid conclusions and projections.

1002 – AP CALCULUS AB **Grade 12**
1 Credit

Prerequisite - Midyear review of PreCalculus Honors (a semester grade of B+ or higher), PSAT at or above the 80th percentile, teacher recommendation, and confirmed by the successful completion of the course.

Calculus is the mathematical study of how quantities change. Students have been studying rates of change of functions prior to calculus using graphs, tables and, for linear functions, algebraic rules. In Calculus, students learn about limits and can then move from describing the average rate of change of a function on an interval to describing the instantaneous rate of change of a function at a point; in other words, finding the derivative of a function at a point. Limits also play a role in describing the area under a curve using Riemann Sums and lead to the definition of the definite integral.

Calculus AB begins with a review of functions and formalizes the concept of continuity. Then students are introduced to the idea of a limit. The limit is used to define the derivative, and students learn rules of differentiation and solve problems involving the application of the derivative, including optimization, curve sketching, and related rates. Then students explore the antiderivative and use Riemann Sums to define the definite integral. Students again learn rules related to computing integrals and then apply that knowledge to solve problems involving area, volume, and distance. The course ends with an introduction to differential equations through slope fields and separable differential equations.

Calculus AB follows the well-respected Advanced Placement syllabus in single-variable calculus that includes techniques of differentiation, techniques of integration, and the Fundamental Theorem that relates these two processes. The course is equivalent to at least a semester of calculus at most colleges and universities, and to a year-long class at some. Algebraic, numerical, and graphical representations are emphasized throughout. The development of differential and integral calculus ranks among the greatest human achievements of all time, and so the course also takes inspiration from the many applications these ideas have in the real world.

1007 – AP CALCULUS BC **Grade 12**
1 Credit

Prerequisite: Midyear review of PreCalculus Honors (a semester grade of A- or higher), PSAT at or above the 90th percentile, teacher recommendation, and confirmed by the successful completion of the course.

This course will cover the same material as AP Calculus AB with the addition of the following topics: sequences, L'Hopital's Rule, improper integrals, power series, Taylor Series, Taylor's Theorem, radius of convergence, testing convergence, parametric functions, vectors in the plane, and polar functions. ***These additional topics will be covered as an independent study, placing responsibility for learning these topics on the student.***

1103 – CALCULUS – HONORS **Grade 12**
1 Credit

Prerequisite: Midyear review of PreCalculus Honors (a semester grade of B+ or higher), PSAT at or above the 80th percentile, teacher recommendation, and confirmed by the successful completion of the course.

Students will study differential and integral calculus and complete the topics usually studied in a one-semester, college calculus course. Topics to be treated in depth include: limits and continuity, the derivative, differentiation techniques and applications, with an introduction to indefinite and definite integrals, techniques of integration and applications of the definite integral, and solutions to differential equations. Problems will be approached numerically, graphically, analytically and verbally. Emphasis will be placed on solving each problem all four ways whenever possible. Students will use their Nspire calculator. Students are expected to solve problems with and without a calculator.

Calculus Honors is structured in ways that demand significantly greater student independence, increased quantity and complexity of quantitative work, superior reading comprehension skills, and greater ability to cope with and make sense of complexity, ambiguity, abstraction, and theoretical work.

9007 – COMPUTER SCIENCE 6 **Grade 6**
.5 Credit

The Grade 6 curriculum includes a variety of technology topics that will help all students transition to middle school as well as computer science topics. It includes an in depth look at Google Apps and Lego Mindstorm robotics. All grade six students take this class.

9008 – COMPUTER SCIENCE 7/8 **Grades 7 and 8**
.5 Credit

The course curriculum is based on Code.org's Computer Science Discoveries (CS Discoveries) and is an introductory computer science course that empowers students to create authentic artifacts and engage with computer science as a medium for creativity, communication, problem solving, and fun. Using both unplugged and computer projects, the course takes a wide lens on computer science by covering topics such as programming, physical computing, HTML/CSS, and data.

9604 – ROBOTICS **Grades 7 and 8**
.5 Credit Limited to 10 students

The Robotics course is built around theme-based challenges that will engage students in research, problem solving, coding, and engineering concepts connected to real-world problems. The class revolves around *FIRST*@ Core Values which emphasize teamwork, discovery, and innovation. Students emerge more confident, excited, and equipped with the skills they need in a changing workforce.

Students interested in taking this class will automatically be part of the Saint Mary Academy - Bay View middle school robotics team and participate in the *FIRST*@ LEGO@ (FLL) guided, global robotics competition. This class is limited to ten students who must be highly motivated and committed to working as a team. Students must be able to dedicate two full days to the

competitions and be able to meet outside of regularly scheduled classes in order to be considered for the class. Interested students should talk to their school counselor to apply for this course.

This course satisfies the technology course requirement for Grades 7 and 8.

9939 – INTRODUCTION TO COMPUTER SCIENCE- HONORS Grades 9 and 10
.5 Credit

This class is required and based on the Microsoft TEALS Computer Science curriculum which is an introduction to the AP Computer Principles course. TEALS Introduction to Computer Science is an engaging course that explores a variety of basic computational thinking and programming concepts through a project-based learning environment. TEALS is a unique program that partners professionals from the Computer Science industry who volunteer their time to co-teach in the classroom several times a week. TEALS volunteers make a lasting impact on their students' lives as well as help shape students' futures and career opportunities by providing them with computational knowledge and skills they would not otherwise have access to. The curriculum is based on the Beauty and Joy of Computing Curriculum developed at the University of California, Berkeley. The students will construct programming applications using SNAP! programming language, use the problem-solving process as it relates to computer science and programming, design and implement creative solutions and artifacts through programming, critique their computational work and the work of others, and communicate computational thought processes, procedures, and results to others.

9936 – AP COMPUTER SCIENCE PRINCIPLES Grades 10, 11 and 12
1 Credit

Prerequisite: Successful completion of Introduction to Computer Science

This course is designed to be the equivalent to a first semester introductory college computing course. In this course students will develop computational thinking skills vital for success across all disciplines, such as using computational tools to analyze and study data and working with large data sets to analyze, visualize and draw conclusions from trends. Students are encouraged to apply creative processes when developing computational artifacts and to think creatively when using computer software and other technology to explore questions that interest them. They will also develop effective communication and collaborative skills, working individually and collaboratively to solve problems, and discussing and writing about the importance of these problems and the impacts on their community, society and the world. Students will complete an in class long term assessment along with a College Board exam in order to receive a score for AP credit.
* Taken from AP Computer Science Principles Course and Exam Description

1013– AP COMPUTER SCIENCE A Grade 11 and 12
1 Credit

Prerequisite- Successful completion of Computer Science Principles or Calculus, in consultation with school counselor

AP Computer Science is equivalent to a first-semester, college-level course in computer science. This course introduces students to computer science with fundamental topics that include problem solving, design strategies and methodologies, organization of data (data structures), approaches to processing data (algorithms), analysis of potential solutions, and the ethical and social implications of computing. The course emphasizes both object-oriented and imperative

problem solving and design using Java language. These techniques represent proven approaches for developing solutions that can scale from small, simple problems to large, complex problems. AP Computer Science includes a substantial laboratory component in which students design solutions to problems, express their solutions precisely in Java, test their solutions, identify and correct any errors and compare possible solutions. This course requires that solutions of problems be written in the Java programming language. The AP Computer Science Exam covers a subset of Java.

*Taken from the College Board AP Computer Science Course Overview and Lab Requirement.

SCIENCE DEPARTMENT

The Science Department fosters individuals who are science literate and confident. The science program is designed to encourage curiosity and creativity while preparing the students to face the scientific and ethical challenges of our global community. Students develop and apply critical thinking, analytical thinking, and problem-solving skills as they integrate their knowledge of science with other disciplines. The overall focus is for students to acquire proficiency in the use of scientific language, concepts, materials, and appropriate technology.

The Upper School science curriculum is designed to provide the student with a foundation for future study at the collegiate level. The traditional courses of biology, chemistry, and physics are the core of the curriculum. Electives such as anatomy and physiology, molecular biology, environmental science, and forensic science provide the opportunity for exploration into a specific scientific discipline. Advanced Placement courses are available in biology, chemistry, and physics.

GOALS

The student will be able to:

- Use scientific methods, equipment, and technology to investigate and solve problems working collaboratively and individually;
- Demonstrate through written and verbal communication an understanding and application of scientific concepts and language;
- Integrate, analyze, and apply information from the sciences and other disciplines;
- Explain the basic structures and functions of living things;
- Compare and contrast how living things interact with one another and with the environment;
- Explain the relationship between properties of matter and energy, and the laws that govern the natural world;
- Examine the major developments in science;
- Explore career opportunities;
- Recognize that the body of scientific and technological knowledge is constantly changing and will take personal responsibility for lifelong learning.

PATHWAYS

Students enter high school with a range of interests and aspirations. The following course sequence is offered not as a mandatory set of courses for each interest, but rather, they are suggestions so that students can plan. Options within each pathway can be identified in conversation with a science faculty member.

	Science Pathway A	Science Pathway B Life Science	Science Pathway* Engineering
Grade 9	Biology (Honors or Level 1)	Honors Biology	Honors Biology
Grade 10	Chemistry (Honors or Level 1)	Molecular Biology **and** Honors Chemistry	Honors Chemistry
Grade 11	Honors Physics or Conceptual Physics	Honors Anatomy & Physiology **and** AP Chemistry	AP Physics 1 or Honors Physics
Grade 12	Forensic Science or Environmental Science	AP Biology **and** Honors Physics or AP Physics 1	AP Physics C (Mechanics) or AP Physics 2

*** Students interested in pursuing an engineering pathway should also consult with their math teacher to plan a mathematics course sequence to complement their science courses.**

3601 – SCIENCE 6 **Grade 6**
1 Credit

This course lays the foundation for the study of middle school science. Students begin with the nature of science and progress through selected topics in life, earth and physical science. The course is designed to engage students in the process of science as they learn basic scientific concepts. Students will be exposed to the metric system and metric measure. The curriculum incorporates both individual work and collaborative activities.

3703 – SCIENCE 7 **Grade 7**
1 Credit

This course presents a variety of topics concerning living organisms and their environments. The students learn about the continuity, diversity, and distribution of life forms, thus broadening their understanding and appreciation of the natural world. Students explore these topics through field, laboratory, and individual investigations.

3803 – SCIENCE 8 **Grade 8**
1 Credit

This course provides students a foundation in the basic concepts of physical science. Students are provided manipulative and laboratory experiences to develop essential science skills and to extend their understanding of science concepts in chemistry and physics. All students are required to complete a Science Fair project.

3900 – BIOLOGY – HONORS **Grade 9**
1 Credit

Prerequisite: Midterm grade of A- or higher in Science 8 and teacher recommendation.

Biology is a required science for all Bay View students. Biology Honors covers the same material as Biology 1 but does so in ways that demand significantly greater student independence, increased quantity and complexity of quantitative work, superior reading comprehension skills, and greater ability to cope with and make sense of complexity, ambiguity, abstraction, and theoretical work.

3901 – BIOLOGY – LEVEL 1 **Grade 9**
1 Credit

Biology is a required science for all Bay View students. The Level 1 Biology is designed to challenge students to pursue their studies in greater depth than required at a Level 2 placement. Therefore, the Level 1 student is expected to work with a high degree of independence to successfully complete the course. In this course, students are required to study and master biological concepts and themes involving the chemical composition of life, the importance of water in living systems, molecular biology of the cell, structure and function of the cell and its parts, biochemistry of the cell, cell metabolism, gene expression, cell division, heredity, evolution, and biotechnology. These topics are explored via dynamic class discussion, small group discussions, student presentations, and laboratory experiences. Introducing students to the process of science is a key objective of this course; therefore, proper laboratory procedure, use of scientific equipment and technology, qualitative and quantitative data analysis, as well as scientific lab report composition are emphasized. Such skills are crucial in preparing students for further studies in the sciences at Bay View and at the collegiate level.

3003 – MOLECULAR BIOLOGY – HONORS **Grades 10, 11, 12**
1 Credit

Prerequisite – Successful Completion of Biology with a semester grade of B or higher in Honors Biology or an A or higher in Biology -Level 1 and teacher recommendation.

The honors Molecular Biology course is offered to sophomore, junior and senior students as an elective. The curriculum will introduce common laboratory techniques used in biomedical research such as maintaining a lab notebook, micropipetting, centrifugation, spectrophotometry, PCR, agarose gel electrophoresis, polyacrylamide electrophoresis, Western blotting, DNA extraction and purification, bacterial transformation, and plasmid purification. The molecular biology student will not only master such techniques but will be asked to apply them in a number of short term and long term experimental research projects including human DNA extraction and purification, restriction enzyme analysis of crime scene DNA, comparison of PCR amplified DNA extracted from genetically modified and non-modified plants, and the cloning and sequencing of a plant gene using bacterial cell transformation.

This honors course demands significantly greater student independence, increased quantity and complexity of quantitative work, superior reading comprehension skills, and greater ability to cope with and make sense of complexity, ambiguity, abstraction, and theoretical work.

3000 – CHEMISTRY – HONORS **Grade 10**
1 Credit

Prerequisite: Successful Completion of Honors Algebra I with a semester grade of B+ or an A- or higher in Algebra I and teacher recommendation.

All sophomores are required to take Chemistry. Chemistry Honors covers the same material as Chemistry 1 but does so in ways that demand significantly greater student independence, increased quantity and complexity of quantitative work, superior reading comprehension skills, and greater ability to cope with and make sense of complexity, ambiguity, abstraction, and theoretical work.

3001 – CHEMISTRY – LEVEL 1 **Grade 10**
1 Credit

All sophomores are required to take Chemistry, which will provide an understanding of the composition, structure, bonding, nomenclature, properties, and classification of matter. This includes all of the changes that occur with matter and the energy that is associated with these changes. The student will be able to calculate chemical quantities based on a balanced chemical reaction. The concepts will be acquired and reinforced through lectures, collaborative activities, and using the latest technologies, laboratory experiences, and independent work assignments.

3100 – PHYSICS – HONORS **Grades 11 and 12**
1 Credit

Prerequisite – Successful completion (B+ or higher) of Honors Geometry *and* Honors Algebra II

The Physics Honors course is offered to junior and senior students and is recommended for students who contemplate a major in which undergraduate physics will be required. Physics Honors is a year-long. algebra-based study of the physical laws of nature and does so in ways that demand significantly greater student independence, increased quantity and complexity of quantitative work, superior reading comprehension skills, and greater ability to cope with and make sense of complexity, ambiguity, abstraction, and theoretical work. Topics include work, energy, and momentum; wave theory, including mechanical waves and electromagnetic waves; geometric optics; and fluid mechanics. The student is expected to have a satisfactory mathematics background as demonstrated by successful completion of any level of Geometry or Algebra II.

3105 – CONCEPTUAL PHYSICS – LEVEL 1 **Grades 11 and 12 1 Credit**

Prerequisite – Successful completion of Geometry

Conceptual Physics course is offered to junior and senior students and is recommended for students who contemplate a major in which undergraduate physics may be required and who wish to acquire a basic understanding of the physical laws of nature. The course stimulates higher-level thinking by capitalizing on the student's personal experience with nature. A variety of instructional strategies is employed, but the focus is on engaging the student with demonstrations and hands-on activities that challenge her to relate her personal experiences to phenomena that are either new or, quite often, counterintuitive. The student reads, writes, and talks about physics. She engages in a variety of independent and collaborative laboratory

activities designed to explore, develop, and apply concepts. The three-step cycle emphasizes the understanding of concepts as a precursor to more traditional problem-solving. First semester topics include kinematics (the study of motion) and dynamics (the study of forces). Second semester topics include work, energy, momentum, and wave theory.

3112 – ENVIRONMENTAL SCIENCE LIFE APPROACH - HONORS **Grades 10, 11 and 12**
.5 Credit

Prerequisite: Successful completion of Biology and Algebra I with a B+ or higher.

Environmental Science: A Physical Approach is a one-semester, honors elective offered to sophomores, juniors, and seniors. This course focuses on the physical planet and the forces that shape its current condition. Contemporary issues such as sea level rise, climate change, alternative energy, and sustainability will be discussed. Fundamental topics such as pollution, plate tectonics, and natural resources will be presented. Local, national, and international environmental policies will be examined and critiqued based on their ability to protect the planet. This course is designed to support the Critical Concerns of the Sisters of Mercy and the United Nations Sustainable Development Goals.

Students will be engaged in the learning process through lectures, videos, and independent work. Students will collaborate in the design and production of devices that can aid in creating a sustainable planet. Students will read *Rising: Dispatches from the New American Shore* by Elizabeth Rush and various periodical articles to support the material presented in the course

3113 – ENVIRONMENTAL SCIENCE PHYSICAL APPROACH - HONORS **Grades 10, 11, and 12**
.5 Credits

Prerequisite: Successful completion of Biology and Algebra I with a B+ or higher average.

Environmental Science: A Life Approach is an honors level elective that explores the relationship between humans and the physical and biological components of our planet. Contemporary issues such as sea level rise, climate change, alternative energy, environmental justice, human rights, sustainability, and the water crisis will be discussed. Fundamental topics such as economics, population, endangered species, and the diversity of life will be presented. Local, national, and international environmental policies will be examined and critiqued based on their ability to protect the planet and the living things that call it home. This course is designed to support the Critical Concerns of the Sisters of Mercy and the United Nations Sustainable Development Goals.

Students will be engaged in the learning process through lectures, videos, and independent work. Students will collaborate in the design and production of devices that can aid in creating a sustainable planet. Students will read *What the Eyes Don't See* by Mona Hanna Attisha and various periodical articles to support the material presented in the course.

3107 – HUMAN ANATOMY & PHYSIOLOGY - HONORS **Grades 11 and 12**
1 Credit

Prerequisite: Successful Completion (B or higher) of Honors Biology or semester grade of B or higher in Molecular Biology- Honors and teacher recommendation.

The Human Anatomy & Physiology Honors course is offered to junior and senior students with a deep understanding of cellular biology and biochemistry. Human Anatomy Honors covers the same material as Human Anatomy & Physiology 1 but does so in ways that demand significantly greater student independence, increased quantity and complexity of quantitative work, superior reading comprehension skills, and greater ability to cope with and make sense of complexity, ambiguity, abstraction, and theoretical work.

3106 – HUMAN ANATOMY & PHYSIOLOGY – LEVEL 1 Grades 11 & 12
1 Credit

Prerequisite - Successful completion of Biology

The Anatomy and Physiology course is offered to junior and senior students as an elective. The course curriculum provides a review of the chemistry of life followed by an in-depth study of body tissues and the major organs systems. In the laboratory, students will be introduced to molecular biology techniques used in the medical and research fields to diagnose disease such as PCR and DNA fingerprinting. Students will also delve into microscopic examination of body tissues to enhance the study of the molecular make-up of the cells composing the human body. Macroscopic anatomical features will be studied via virtual dissection of human cadavers via the life-size Anatomage dissection table and traditional fetal pig dissection. To reinforce the concepts addressed in class and enhance the medical application of the course content, students will be presented with a number of medical case studies throughout the year. They will work in groups utilizing the laboratory equipment described above to explore, research, and solve the medical issue outlined in each case.

These hands-on and problem-solving activities are designed to add depth to the concepts discussed in lecture and class discussion concerning the physiology of the cell, body tissues and organs as well as enhance the student's understanding of the human body plan. Through this approach, the Anatomy & Physiology student will appreciate the hierarchy in which a multicellular organism is assembled. They will follow and study the emergent properties at each level of this hierarchy from the atom to the molecule, molecule to cell, cell to tissue, tissue to organ and organ to organ system.

3103 – AP BIOLOGY Grades 11 and 12
1 Credit

Prerequisite – Successful completion of Honors Biology or Honors Molecular Biology with a semester grade of B+ or higher or a semester grade of A in Biology Level 1 and teacher recommendation. Students who enter the Upper School with a strong math and science background may take a placement test to determine whether they are ready to take AP Biology instead of Honors Biology.

AP Biology is a rigorous, college-level course offered as an elective to junior and senior students with a strong background in biology and chemistry. Because of the rigor and depth of this course, it is strongly recommended that a student complete both biology and chemistry at the honors level prior to enrolling in this course. The AP Biology course curriculum is organized into eight units by the College Board with the following biological themes: Chemistry of Life, Cell Structure & Function, Cellular Energetics, Cell Communication & Cell Cycle, Heredity, Gene Expression & Regulation, Natural Selection, & Ecology. Laboratory work illustrates and reinforces principles presented in lecture and in the text. The AP Biology student is expected to properly prepare for each lab so she can execute each experiment in an independent manner. Students are also expected to describe, organize, interpret, and analyze experimental outcomes

in a detailed lab report upon the completion of each lab experience. In order to cover the content and obtain the laboratory skills set by the College Board, AP students are expected to attend after school sessions approximately twice a month*. Acceptance will be based on performance in previous science courses. The successful completion of honors level biology and chemistry is strongly recommended. All students are required to take the AP Exam in May.

* AP Biology will meet after school every time the class is scheduled to take place during the last period of the rotating schedule.

3104 – AP CHEMISTRY **Grades 11 and 12**
1 Credit

Prerequisite – Successful completion of Honors Chemistry and Honors Algebra II with a semester grade of B+ or higher in each course or Chemistry- Level 1 and Algebra II - Level 1 with an A or higher in each course, and teacher recommendation.

The Advanced Placement Chemistry Course is an introductory college-level chemistry course. Students cultivate their understanding of chemistry through inquiry-based lab investigations as they explore the four Big Ideas: scale, proportion, and quantity; structure and properties of substances; transformations; and energy. This course is designed to prepare students to succeed on the AP Chemistry Exam offered by the College Board. Students enrolled in this course should have a strong background in mathematics and chemistry. Laboratory work includes experiments which demonstrate the principles of equilibrium, qualitative analysis, rates of reactions, electrolysis, voltaic cells, thermodynamics, oxidation-reduction, and acid-base titrations.

Additional Requirements
AP Chemistry will meet until 3:30 p.m. every time the class meets last period.

3108 – AP PHYSICS 1 **Grades 11 and 12**
1 Credit

Prerequisite – Successful completion (A- or higher) of Honors Geometry and Honors Algebra II, PSAT score at the 80th percentile or higher, and teacher recommendation

The AP Physics 1 course is an initial course in physics offered to junior and senior students as an elective, and is recommended for students who contemplate majoring in the science, technology, engineering, or healthcare fields. It is the equivalent of a first-semester college course in algebra-based physics, but is taught over a full academic year to enable students to develop a deep understanding of the content and to focus on acquiring and applying their knowledge through inquiry labs. The course covers Newtonian mechanics; work, energy, and power; and mechanical waves and sound. The course also introduces electrical circuits.

Additional Requirements
AP Physics will meet until 3:30 p.m. every time the class meets last period.

3114 – AP PHYSICS 2 **Grades 11 & 12**
1 Credit
Prerequisite – Successful completion (A- or higher) of AP Physics 1 or Honors Physics, PSAT score at the 80th percentile or higher, and teacher recommendation

The AP Physics 2 course is offered as an elective and is recommended for students who contemplate majoring in the science, technology, engineering, or healthcare fields. It is the equivalent of a second-semester college course in algebra-based physics, but is taught over a full academic year to enable students to develop deep understanding of the content and to focus on acquiring and applying their knowledge through inquiry labs. The course covers fluid mechanics; thermodynamics; electricity and magnetism; optics; and atomic and nuclear physics. The successful student must have a strong physics background as demonstrated by successful completion of AP Physics 1 or Honors Physics.

3120 – AP Physics C: Mechanics **Grades 11 and 12**
1 Credit

Prerequisite – Successful completion of AP Physics-1 or Honors Physics; concurrent enrollment in either AP Calculus or Honors Calculus

AP Physics C: Mechanics is a second-year physics course offered to students as an elective. It is equivalent to a one-semester, calculus-based, college-level physics course, especially appropriate for students planning to specialize or major in a physical science or engineering. The course explores six content areas: kinematics; Newton's laws of motion; work, energy and power; systems of particles and linear momentum; circular motion and rotation; and oscillations and gravitation. Presented over a full academic year, the course engages students with a combination of lectures, recitations, and labs. Introductory differential and integral calculus are used throughout the course. All students are required to take the AP Physics C: Mechanics exam administered by the College Board in May.

Additional Requirements
AP Physics will meet until 3:30 p.m. every time the class meets last period.

3200 – FORENSIC SCIENCE PART A - HONORS **Grades 11 and 12**
.5 Credits

Prerequisite - Successful completion of Biology, Algebra I, and Chemistry with a B+ or higher average.

Forensic Science Part A – Honors is a one semester elective course offered to juniors and seniors. Part A addresses major themes such as the development of Forensic Science, the role of the CSI, the capabilities of a crime lab, processing a crime scene, and the significance of physical evidence. Students will be engaged in the learning process through lectures, labs, independent work, and collaborative activities. Students will view and summarize videos which highlight some of the important aspects of the course. Students will read *Killers of the Flower Moon* by David Grann to support the material being studied.

Forensic Science Part A – Honors covers the same material as Forensic Science Part A Level 1 but does so in ways that demand significantly greater student independence, increased quantity and complexity of quantitative work, superior reading comprehension skills, and greater ability to cope with and make sense of complexity, ambiguity, abstraction, and theoretical work.

3202 – FORENSIC SCIENCE PART A - LEVEL 1 Grade 11 and 12
.5 Credit

Prerequisite - Successful completion of Biology, Algebra, and Chemistry.

Forensic Science Part A is a one-semester elective course offered to juniors and seniors. Part A addresses major themes such as the development of Forensic Science, the role of the CSI, the capabilities of a crime lab, processing a crime scene, and the significance of physical evidence. Students will be engaged in the learning process through lectures, labs, independent work and collaborative activities. Students will view and summarize videos which highlight some of the important aspects of the course.

3201 – FORENSIC SCIENCE PART B – HONORS Grade 11 and 12
.5 Credit

Prerequisite - Successful completion of Biology, Algebra, and Chemistry at a B+ or higher average, completion of Forensic Science Part A strongly recommended.

Part B is a one-semester elective course offered to juniors and seniors. Part B addresses major themes such as fingerprints, impression evidence, arson, explosives, firearms, drugs, alcohol, and forensic serology. Students will be engaged in the learning process through lectures, labs, independent work, and collaborative activities. Students will view and summarize videos that highlight some of the important aspects of the course. Students will read *The Blood of Emmett Till* by Timothy B. Tyson to support the material being studied.

Forensic Science Part B Honors covers the same material as Forensic Science Part A Level 1 but does so in ways that demand significantly greater student independence, increased quantity and complexity of quantitative work, superior reading comprehension skills, and greater ability to cope with and make sense of complexity, ambiguity, abstraction, and theoretical work.

3203 – FORENSIC SCIENCE PART B –LEVEL 1 Grade 11 and 12
.5 Credit

Prerequisite: Successful completion of Biology, Algebra, and Chemistry.

Part B is a one semester elective course offered to juniors and seniors. Part B addresses major themes such as fingerprints, impression evidence, arson, explosives, firearms, drugs, alcohol, and forensic serology. Students will be engaged in the learning process through lectures, labs, independent work and collaborative activities. Students will view and summarize videos that highlight some of the important aspects of the course.

HISTORY/SOCIAL SCIENCES DEPARTMENT

"Make a career of humanity. Commit yourself to the noble struggle for equal rights. You will make a greater person of yourself, a greater nation of your country, and a finer world to live in."

Martin Luther King, Jr.

The History/Social Sciences Department believes that promoting an understanding of historical events, and the context in which they occurred, combined with an understanding of the human condition, enables students to approach present day challenges with an informed mind. Thus, through the study of the discipline, supplemented and strengthened by the application of the latest technology, the department seeks to instill in students a determination to become an influential participant in the global community.

GOALS

Upon completion of the History and Social Sciences Program, the student will be able to:

- think critically, communicate effectively, and solve problems;
- demonstrate analytical skills through the process of examining and researching primary and secondary sources;
- write clearly and effectively within the framework of the curriculum;
- enhance research through the use and application of technology;
- understand the connection between the basic knowledge of historical events and their impact on the contemporary world;
- comprehend the environmental, political, legal, social, and economic factors which shape our world;
- exhibit moral and ethical decision making;
- develop skills which reflect an appreciation of human dignity;
- develop an appreciation for the challenges facing the global community in the 21st century.

5601 – HISTORY 6 — Grade 6
1 Credit

This course will trace the foundations of human history through a study of the ancient world. Students will strengthen their knowledge of cultural, geographic, economic, and political systems with a variety of research projects, independent readings, and assessments throughout the year.

5706 – HISTORY — Grade 7
1 Credit

This course is an introduction to United States History. Students will examine the dramatic changes experienced throughout the sixteenth, seventeenth, and into the eighteenth centuries. We will focus our study on the cultural, political, economic, and diplomatic forces that shaped America from the age of discovery through the formation of the new nation.

5802 – HISTORY 8 **Grade 8**
1 Credit

Students in this one-year course will examine the emergence of the Modern World, focusing on the major political, religious, economic, social, and cultural trends from the Middle Ages to the mid-nineteenth century.

5900 – MODERN WORLD HISTORY – HONORS **Grade 9**
1 Credit

Modern World History is a required history course for all freshmen at Bay View. Modern World History Honors covers the same material as Modern World History- Level 1 but does so in ways that demand significantly greater student independence, increased quantity and text complexity, superior reading comprehension and writing skills, and greater ability to cope with and make sense of complexity, ambiguity, abstraction, and theoretical work.

5901 – MODERN WORLD HISTORY – LEVEL 1 **Grade 9**
1 Credit

This course examines world events from the end of the nineteenth century to the present. It explores the impact of the democratic and industrial revolutions, and the events that led to world domination by European powers and the wars that resulted. The course will also examine the ideas that led to independence movements of the mid-twentieth century and the effects of global interdependence.

5902 – MODERN WORLD HISTORY – LEVEL 2 **Grade 9**
1 Credit

5006 – UNITED STATES HISTORY I – HONORS **Grade 10**
1 Credit

United States History 1 is a required history course for all sophomores at Bay View. United States History 1 Honors covers the same material as United States History- Level 1 but does so in ways that demand significantly greater student independence, increased quantity and text complexity, superior reading comprehension and writing skills, and greater ability to cope with and make sense of complexity, ambiguity, abstraction, and theoretical work.

5007 – UNITED STATES HISTORY I – LEVEL 1 **Grade 10**
1 Credit

This course examines the major themes in United States History from Pre-Columbian times through the Antebellum Era. Students will gain an understanding of the political, economic, social, and cultural developments that shaped this time period. The course will conclude with an investigation of modern U.S. History in grade 11. Please note: the successful completion of the honors level United States History course will prepare students for either honors-level United States History II or Advanced Placement United States History.

5008 – UNITED STATES HISTORY I – LEVEL 2 **Grade 10**
1 Credit

Prerequisite – Successful completion of Modern World History

5100 – AP UNITED STATES HISTORY **Grade 11**
1 Credit

Prerequisite – Successful completion of Modern World History/United States History I

Prerequisite – 3.75 cumulative GPA

Advanced Placement level classes place on the students demands that are equivalent to those of an introductory college course. Students will be required to complete a summer reading program at the conclusion of sophomore year. Emphasis will be placed on analyzing primary sources and developing effective college level writing skills. All students are required to take the Advanced Placement Examination in May.

5126 – UNITED STATES HISTORY II – HONORS **Grade 11**
1 Credit

5127 – UNITED STATES HISTORY II– LEVEL 1 **Grade 11**
1 Credit

Prerequisite – Successful completion of Modern World History/United States History

This course will continue the exploration of United States History by focusing on the Civil War Era, the Gilded Age, the Progressive Era, the World Wars, the Great Depression, the Cold War and the post-Cold War Era. We will examine primary sources and further develop research and writing skills.

5128 – UNITED STATES HISTORY II– LEVEL 2 **Grade 11**
1 Credit

5202 – AP EUROPEAN HISTORY **Grade 10, 11, and 12**
1 Credit

Prerequisite – 3.75 cumulative GPA

Advanced Placement European History is a college approach to the study of the history of Europe from the Renaissance to the present. Students will utilize the pertinent historiography which will enable them to trace the political, economic, intellectual, social, and cultural events that impacted this history. This is a full-year elective and all students are required to take the Advanced Placement Examination in May.

5207 – AP UNITED STATES GOVERNMENT & POLITICS **Grade 12**
1 Credit

Prerequisite – 3.75 cumulative GPA

The Advanced Placement course in United States Government and Politics is designed to provide students with a critical perspective on the topic through the study of general concepts about the American system of government, as well as the examination of various institutions, groups, beliefs, and ideas that affect the nation's political affairs. The year-long course also analyzes the influence of political parties, the role of political action committees, the efforts of special interest groups in shaping public policy, the relationship of the three branches of government to one another, and the role of the government in protecting civil rights and individual liberties. All students are required to take the Advanced Placement Examination in May.

5104 – POLITICAL SCIENCE – HONORS **Grades 10, 11, and 12**
.5 Credit

Political Science is an elective history course for students at Bay View. Political Science - Honors covers the same material as Modern Political Science- Level 1 but does so in ways that demand significantly greater student independence, increased quantity and text complexity, superior reading comprehension and writing skills, and greater ability to cope with and make sense of complexity, ambiguity, abstraction, and theoretical work.

5105 – POLITICAL SCIENCE – LEVEL 1
Grades 10, 11, and 12 .5 Credit

This elective examines the American political system, the role of the federal government, the competing philosophies of liberalism and conservatism, and the electoral process. Students also analyze both domestic and international issues of the day.

5130 - GLOBAL RESISTANCE – REVOLT FOR - LEVEL 1 **Grades 10, 11, and 12**
EQUITY AND FREEDOM
.5 Credit

This semester-long class examines how individuals and groups of people have resisted global oppression and colonization. It explores strategies, movements, uprisings, and resistance aimed at ensuring self-governance, justice, and voice. Students will identify what strategies, structures, and practices unite these efforts across political structures and cultural differences so that they can connect these global and historical battles to the ones occurring today in American and worldwide.

5112 – WOMEN IN AMERICAN HISTORY – HONORS **Grades 10, 11, and 12**
.5 Credit

5113 – WOMEN IN AMERICAN HISTORY – LEVEL 1 **Grades 10, 11, and 12**
.5 Credit

This course offers a view of issues that have affected American women throughout the nineteenth and twentieth centuries. Emphasis will be placed on both historical trends and individual women such as Elizabeth Cady Stanton, Susan B. Anthony, and Eleanor Roosevelt. Students will research issues by examining primary and secondary sources and conducting an interview with a female family member.

5200 – AP PSYCHOLOGY **Grades 11 and 12**
1 Credit

Prerequisite – 3.75 cumulative GPA

Advanced Placement programs are a joint educational endeavor of the College Board and St. Mary Academy - Bay View. The Advanced Placement psychology course will have a learning environment equivalent to an introductory college level class. The course curriculum requires a basic text which is to be read independently, along with supplementary reading materials which will be assigned throughout the year. All students are required to take the Advanced Placement Examination in May. **Basic course content is described in Psychology Level 1.**

5203 – PSYCHOLOGY – HONORS **Grades 11 and 12**
1 Credit

This course, like any honors course at St. Mary Academy – Bay View, challenges students to pursue course material from a broader perspective and in greater depth. It utilizes seminars and enforces critical and creative thinking in the classroom. Independent work and inherent student motivation are required for success in this psychology course. **Basic course content is described in Psychology Level 1.**

5201 – PSYCHOLOGY – LEVEL 1 **Grades 11 and 12**
1 Credit

This course is designed to inform students of the methodology used by psychologists in an attempt to understand behavior and mental processes. Topics include: Biological Basis of Behavior, Sensation and Perception, States of Consciousness, Learning and Memory, Cognition and Language, Intelligence, Motivation and Emotion, Life-Span Development, Personality, Psychological Disorders, Therapies, and Social Psychology. Application of psychology principles will be implemented through the use of semester projects and presentations. Emphasis is placed on basic principles of psychology that can be applied to everyday life.

WORLD LANGUAGES DEPARTMENT

"Learning to speak another's language means taking one's place in the human community. It means reaching out to others across cultural and linguistic boundaries. Language is far more than a system to be explained. It is our most important link to the world around us."

Sandra J. Savignon
(*Communicative Competence: Theory and Classroom Practice: Texts and Contexts in Second Language Learning, 1983*)

The World Languages Department at St. Mary Academy - Bay View promotes understanding of peoples and cultures. We endeavor to prepare young women for the challenges and opportunities of the global community of the twenty-first century. Through a variety of offerings and technology-based activities and lessons, young women develop interdisciplinary skills which will enhance their ability to succeed in a complex socio-economic world. We also affirm that, in her success, the Bay View alumna shall be ever mindful of those in need, whether in her immediate community and country, or internationally. We value the potential of our students to become life-long learners; therefore, we endeavor to foster this integral aspect of these competent young women with the hope that they will participate in creating "… a more just, verdant, and peaceful world." (MacArthur Foundation).

GOALS

Upon completion of the World Languages Program, the student will be able to:

- understand the concept and nature of language;
- communicate competently through the English language;
- communicate competently through at least one other global language and demonstrate knowledge and understanding of its culture;
- access broader personal and professional opportunities as a result of knowing a second language;
- understand what digital citizenship entails, and employ current and future technologies effectively and responsibly, treating fellow technology users with respect and dignity.

The student will recognize and understand the diversity among peoples and cultures. This understanding will enhance her appreciation of and participation in the global community. Hence, she will enjoy the rewards of being an informed and cultured person throughout her life.

6604 – SPANISH 6 Grade 6
1 Credit

Teachers emphasize the techniques and strategies that facilitate language acquisition. Emphasis in the modern languages is placed on passive-active learning and passive-active roles. With this method of presentation, the student moves from the receiver of oral cues and phrases to the producer and primary communicator in oral language. The student also researches and completes projects in order to familiarize herself with the different cultures of the Spanish language.

6703 – SPANISH 7 **Grade 7**

1 Credit

This course will complete the first half-year curriculum of Spanish 1, and is designed to teach the student to maintain basic discussion and to express preferences relating to daily situations. The initial skills of listening and speaking will be emphasized during the primary stages in order to teach proper pronunciation and intonation. Reading and writing will then be integrated in order to foster the achievement of world language competencies. Geographic and global awareness, as well as an understanding of cultural differences and similarities, will be explored through research projects, reports, guest speakers, and videos. Spanish will be used throughout the class when appropriate.

6800 – SPANISH 1 **Grades 8, 9, 10, 11 and 12**
1 Credit

Spanish 1 is designed to enable the student to understand oral and written communication relating to daily situations regarding topics such as weather, family, travel, and school. The student will also be able to interact in the language in basic situations, such as obtaining information and completing transactions. The initial skills of speaking and listening will be emphasized during the primary stages in order to facilitate the acquisition of proper pronunciation and intonation. Reading and writing will be integrated in order to achieve world language competencies. Cultural understanding and insight will be achieved through presentations, reports, videos, guest speakers and the use of 21st century technology. Spanish will be used throughout the class when appropriate.

6902 – SPANISH 2 – HONORS **Grades 9, 10, 11 and 12**
1 Credit

6903 – SPANISH 2 – LEVEL 1 **Grades 9, 10, 11 and 12**
1 Credit

6904 – SPANISH 2 – LEVEL 2 **Grades 9, 10, 11 and 12**
1 Credit

Prerequisite – Successful completion of Spanish 1

Oral and written communication will be broadened to include comprehension and discussion of short literary readings and dialogues. Students will present brief prepared reports on familiar topics. Review and examination of Spanish grammar will continue, creating a better understanding of Spanish as well as a better understanding of English grammar. Cultural appreciation will be advanced through presentations and discussions of current events accessed through a variety of ways including the Internet and 21st century technology. Spanish will be used throughout the class when appropriate.

6016 – SPANISH 3– HONORS **Grades 10, 11 and 12**
1 Credit

6017 – SPANISH 3 – LEVEL 1 **Grades 10, 11 and 12**
1 Credit

6005 – SPANISH 3 – LEVEL 2 **Grades 10, 11 and 12**
1 Credit

Prerequisite – Successful completion of Spanish 2

The refinement of grammar study will continue with the examination of complex structures such as the subjunctive and compound tenses. Pronunciation and intonation will be refined through modeling and continued use of professionally prepared language recordings. Students will present information via reports and projects on topics with which they are "unfamiliar" and which may reflect cultural similarities and differences of the host cultures of Spanish speaking countries. Students will work with bulletins, announcements, official notices, and cultural materials presented in Spanish. Discussion of literary pieces and dialogues, including poetry, will become standard activities. Students will also produce original essays, short stories and poetry in Spanish. The internet and modern technology will also play an integral role in this course. Spanish will be used throughout the class when appropriate.

6102 – SPANISH 4 – HONORS **Grades 11 and 12**
1 Credit

6103 – SPANISH 4 – LEVEL 1 **Grades 11 and 12**
1 Credit

6107 – SPANISH 4 – LEVEL 2 **Grades 11 and 12**
1 Credit

Prerequisite – Successful completion of Spanish 3

Listening and speaking proficiencies will continue to be reinforced and refined, but special emphasis will be placed on reading and writing in order to reach an analytical level of world language comprehension and expression. Students will also become familiar with noted authors and predominant themes of Spanish and Hispanic literature. Grammar review will be achieved via literature. The Internet will also serve as a vital tool. The class will be conducted in Spanish.

6200 – SPANISH 5 – HONORS **Grade 12**
1 Credit

Prerequisite – Successful completion of Spanish 4

Spanish 5 will achieve a refined synthesis of the skills acquired in previous years of language study. Students will be able to express themselves in creative discussion and analysis on a variety of topics, including politics, religion, history, literature, and art. These discussions will take on a universal dimension. The class will be conducted in Spanish.

6104 – AP SPANISH LANGUAGE AND CULTURE **Grade 12**
1 Credit

Prerequisite – Successful completion of Spanish 4

Students will follow the guidelines and requirements established by The College Board Advanced Placement Language program. All participants in the program must take the Advanced Placement Exam in the spring.

Additional Requirement

AP Spanish Language & Culture will meet until 3:30 p.m. every time the class meets last period.

6802 – ITALIAN 1 **Grades 8, 9, 10, 11 and 12**
1 Credit

Italian 1 is designed to enable the student to understand oral and written communication relating to daily situations regarding topics, such as weather, family, travel, and school. The student will also be able to interact in the language in basic situations such as obtaining information and completing transactions. The initial skills of speaking and listening will be emphasized during the primary stages in order to teach proper pronunciation and intonation. Reading and writing will be integrated in order to achieve world language competencies. Cultural understanding and insight will be achieved through presentations, reports, videos, guest speakers and 21st century technology. Italian will be used throughout the class when appropriate.

6906 – ITALIAN 2 – HONORS **Grades 9, 10, 11 and 12**
1 Credit

6907 – ITALIAN 2 – LEVEL 1 **Grades 9, 10, 11 and 12**
1 Credit

6909 – ITALIAN 2 – LEVEL 2 **Grades 9, 10, 11 and 12**
1 Credit

Prerequisite – Successful completion of Italian 1

Oral and written communication will be broadened to include comprehension and discussion of short literary readings and dialogues. Students will present brief prepared reports on familiar topics. Review and examination of Italian grammar will continue, creating a better understanding of Italian as well as a better understanding of English grammar. Cultural appreciation will be advanced through presentations and discussions of current events accessed through a variety of ways including the Internet and 21st century technology. Italian will be used throughout the class when appropriate.

6007 – ITALIAN 3 – HONORS **Grades 10, 11 and 12**
1 Credit

6008 – ITALIAN 3 – LEVEL 1 **Grades 10, 11 and 12**
1 Credit

6012 – ITALIAN 3 – LEVEL 2 **Grades 10, 11 and 12**
1 Credit

Prerequisite – Successful completion of Italian 2

The refinement of grammar study will continue with the examination of complex structures such as the subjunctive and compound tenses. Pronunciation and intonation will be refined through modeling and continued use of professionally prepared language recordings. Students will present information via reports and projects relating to Italian heritage and culture. Students will work with bulletins, announcements, and official projects relating to Italian heritage and

culture. Students will work with bulletins, announcements, official notices and cultural materials presented in Italian. Discussion of literary pieces and dialogues, including poetry, will become standard activities. Students will also produce original essays, short stories, and poetry in Italian. The internet and modern technology will also play an integral role in this course. Italian will be used throughout the class when appropriate.

6105 – ITALIAN 4 - HONORS **Grades 11 and 12**
1 Credit

6106 – ITALIAN 4 - LEVEL 1 **Grades 11 and 12**
1 Credit

Prerequisite – Successful completion of Italian 3

Listening and speaking proficiencies will continue to be reinforced and refined, but special emphasis will be placed on reading and writing in order to reach an analytical level of world language comprehension and expression. Students will also become familiar with noted authors and predominant themes of Italian literature. Modern technology will serve as a resource in this class. Grammar review will be achieved via literature. The class will be conducted in Italian.

6203 – AP ITALIAN LANGUAGE AND CULTURE **Grade 12**
1 Credit

Prerequisite – Successful completion of Italian 4

Students will follow the guidelines and requirements established by The College Board Advanced Placement Language program. All participants in the program must take the Advanced Placement Exam in the spring.

Students are also participants in a cultural exchange program which occurs in February of each year. A two week reciprocal stay with a family is undertaken. Students attend school while in Italy, and enjoy field trips to cultural highlights.

Additional Requirement
AP Italian will meet until 3:30 p.m. every time the class meets last period.

FINE ARTS DEPARTMENT

VISUAL ARTS

The Visual Art Department focuses on the development of the students' creative thinking skills and problem solving abilities. With the application of the design process, students learn to communicate their creative ideas through strong visual statements. The art program provides the opportunity for students to develop independent thinking skills as well as an understanding of the role of art and design in society.

GOALS

Upon completion of the visual arts program, the student will be able to:

- express herself with the acquired discipline and technical skills necessary to communicate effectively through visual form;
- appreciate her own creativity and the diversity of artistic styles and techniques;
- develop creative solutions to design problems;
- articulate an understanding of the influence of art on society in a historical and contemporary context;
- analyze the effective use of elements and principles of design.
- apply the design process to problem solutions

Upper School students interested in an art or design career path, such as fashion design, graphic design, architecture, fine arts, etc. should take the following schedule of courses.

First Year	**Foundation Studio**
Second Year	**Art Studio**
Third Year	**Advanced Art Studio**
Fourth Year	**Portfolio**

Students who have an interest in art, but not necessarily as a career, may also take the schedule of courses listed above. An art portfolio can demonstrate creative thinking abilities and be used in any college admission package.

7602 – ART EXPLORATION **Grade 6**
.5 Credits

The goal of this one-semester course is to introduce students to the visual arts and the creative practices that are the foundation of the Arts Program. Students will develop basic technical and creative skills incorporating various mediums and techniques, and will begin to study the basics of the elements and principles of design.

7904 – INTRODUCTION TO ART & DESIGN **Grade 7**
.5 Credit

Imagination and creative problem solving are the focus of this one-semester course. Students are given the opportunity to explore materials and techniques and use the design process to create work that activates creative thinking skills. With a basic knowledge of the elements and principles of design students will create projects that are well constructed and demonstrate a knowledge of good design.

7906 – ART & DESIGN 2 **Grade 8**
.5 Credit

In this one-semester course students will expand on the knowledge and skills learned in Introduction to Art and Design. The elements and principles of design are the focus along with creative problem solving and technical skills. Students will continue to advance their understanding of good design and explore new techniques including two-dimensional and three-dimensional design challenges.

7900 – FOUNDATION STUDIO – LEVEL 1 **Grades 9, 10, 11 and 12**
1 Credit

This course introduces the student to artistic concepts that provide the foundation for further study in the visual arts. Students will study the elements and principles of design while exploring a variety of methods and materials. Emphasis is placed on the development of drawing, painting, and sculpture techniques with an introduction to digital art. This is an introductory level course for any student who has an interest in art and design. No experience is necessary.

7000 – ART STUDIO – HONORS **Grades 10, 11 and 12**
1 Credit

Prerequisite – Successful completion of Foundation Studio or Visual Arts department chair portfolio evaluation

In this course students will strengthen their technical skills through experimentation with methods and materials. Techniques in drawing, painting and sculpture will be explored in depth. Students will participate in peer evaluations and learn how to recognize strengths and weaknesses in a design. As the year progresses, students will utilize their technical skills to create strong work that focuses on individual ideas and creative problem solving.

7100 – ADVANCED ART STUDIO – HONORS **Grades 11 and 12**
1 Credit

Prerequisite – Successful completion of Art Studio

Students in this course will continue to expand and perfect their technical skills in drawing, painting and sculpture. Digital art applications will be used to compliment the learning experience. There is an emphasis on studying the complex forms of the figure in the first semester. Students will be presented with design problems that will challenge their creative abilities. In the second semester students will examine the work of contemporary artists and look at how art and design can influence our society and the global community. They will also begin to make decisions about what is needed to make their body of work more comprehensive for a portfolio.

7200 – PORTFOLIO - HONORS **Grade 12**
1 Credit

Prerequisite – Successful completion of Advanced Art Studio

In the first semester of this course students will focus on work that will be included in their Portfolio. The new pieces will demonstrate technical skills and creative ideas. Students will also review past work and make any refinements necessary. They will have the opportunity to use

the photography studio in order to photograph work to create digital images. The digital portfolio may be used as supplemental material for college applications, or for Art School applications, but a portfolio is not required to submit to colleges in order to take this course, only an interest in art and design! During the second semester, in consultation with the instructor, students will engage in the creative process and pursue individual interests, selecting media and themes they wish to explore in depth.

7204 – AP ART STUDIO DRAWING **Grade 12**
1 Credit

Prerequisite: Advanced Art Studio and permission of instructor

This course is designed for the committed, advanced art student who would like the challenge of pursuing college-level coursework in art and design. The drawing portfolio consists of work that exhibits a mastery of technical skills and demonstrates a vigorous exploration of visual ideas where an understanding of the critical characteristics of creative thinking is evident. Students must also exhibit mastery in the application of the elements and principles of design. Their work should demonstrate informed decision making and problem solving skills while pursuing their own artistic interests. A variety of 2D techniques such as painting, printmaking, and mixed media that demonstrate drawing competence, may be included in the portfolio. Work that was completed in Advanced Art Studio can be included in portfolio requirements. Students must work independently outside of class as well as in class to complete the AP course requirements.

7002 – CERAMICS 1 – LEVEL 1 **Grades 10, 11, and 12**
.5 Credit

This course allows the student to investigate the hand building process to create forms from both a conceptual and technical basis. Students develop an understanding and control of hand building and become familiar with glazing and surfacing materials.

7101 – CERAMICS 2 – HONORS
.5 Credit

Prerequisite – Successful completion of Ceramics 1 **Grades 10, 11, and 12**

In Ceramics 2 students continue working with the hand building techniques of pinch, coil, and slab begun in Ceramics 1. They will also be introduced to the wheel as a component of this course. More emphasis will be placed on learning various aspects of glazing and firing.

7201 – CERAMICS 3 – HONORS **Grades 11 and 12**
.5 Credit

Prerequisite – Successful completion of Ceramics 2

Ceramics 3 will concentrate on the aesthetic value of form in space, utilizing knowledge of hand built and wheel thrown forms and the synthesis of both methods.

7202– CERAMICS 4 – HONORS **Grades 11 and 12**
.5 Credit

Prerequisite – Successful completion of Ceramics 3

Ceramics 4 will be a continuation of the hand built and wheel work done in Ceramics 3. Projects will be assigned based on the individual needs and level of the student.

7901 – ART EXPERIENCE - LEVEL 1 **Grades 9, 10, 11, and 12**
.5 Credit

Artists have left their mark on history since prehistoric times. Students will explore a variety of artistic styles through hands-on projects inspired by artists through the ages. This is a beginning level course for students interested in trying different artistic techniques and learning the basics of what art and design is all about. No talent required!

7004 – DIGITAL ART AND DESIGN I – HONORS **Grades 10, 11 and 12**
.5 Credit

This course introduces the art student to the creative possibilities of digital media using the Macintosh platform. In today's world, knowledge of new visual media is necessary in many fields of study. In this course students will explore the artistic aspects of graphic design, digital photography, and digital media as a fine art tool, using a variety of programs. The focus will be on developing the technical and design skills necessary to create a strong visual statement.

7005 - DIGITAL ART & DESIGN II - HONORS **Grades 11 and 12**
.5 Credit

Prerequisite: Digital Art & Design 1

A continuation of the concepts and technical skills learned in Digital Art & Design 1. Content includes projects that will require technical as well as creative skills and more in-depth use of the Macintosh programs. Students will have the opportunity to practice analytical skills through critiques.

Digital Art and Design Courses fulfill Technology credit for graduation requirement.

7006 - DIGITAL PHOTOGRAPHY -HONORS **Grades 10, 11 and 12**
.5 Credit

The focus of study in this course is on the basic concepts of design as applied to digital photography. Projects will require technical as well as creative skills to produce photographs that have artistic merit. Students will use their own 10+ megapixel digital SLR camera.
Programs on the Macbook platform will be used to produce and manipulate photographs. Critical analysis and the history of photography will be incorporated into the course.

Requirements: Minimum 10+ Megapixel digital SLR camera

PERFORMING ARTS

The Performing Arts program presents a curriculum that is composed of studies in theory and exercises in stage performance, technical theatre, and in music. Through such a balanced curriculum, this department seeks to instill in its students a love for and an appreciation of the performing arts; an understanding of the complexity of theatre production in all of its forms;

and the ability to recognize the historical importance of performing arts in the development of culture. It is the desire of the department that its offerings will establish in the students a life-long love for theatre and music.

GOALS

Upon completion of the Performing Arts program, the students will be able to:

- read and analyze a script on various levels and written in various styles;
- perform short scenes before an audience;
- communicate directions and solve problems in production, design, and direction;
- read three-part vocal harmonies in a variety of musical styles.

They will know and understand:

- the historical development of drama as a genre and theatre as a cultural reality;
- the concepts of color, rhythm, and focus in theatre design;
- the impact of correct lighting design on a scene;
- the musical content of musical history from the Baroque Period to modern day.

Finally, they will value and appreciate:

- the self-esteem and confidence that is nurtured by performance;
- the effectiveness of teamwork and collaboration toward a common goal;
- the aesthetic dimension reflected in music and drama.

8011 – MS CHORUS **Grades 6, 7 and 8**
1 Semester

The choral program is designed to develop a sensitivity to the qualities inherent in music: rhythm, melody, harmony, form, and texture. The production of true pitch, rich tone quality, and proper intonation is emphasized. Music theory is discovered and/or discussed as it is met in the musical. Vocal selections of different styles and from a variety of historical periods are studied. The development of vocal techniques is an ongoing process. Music in two and three-part harmonies will be studied for performance.

All Grade 6 students in MS Chorus must participate in the Fall production. Obligations include: attending tech week beginning the Saturday before the performance; and at least three after school/outside rehearsal in September and October.

Grades 7 and 8 * Those students who choose to participate in the Fall production must attend tech week beginning the Saturday before the performance; and at least three after school/outside rehearsal in September and October.

8012 – MS ORCHESTRA **Grades 6, 7 and 8**
.25 Credit - 1 Semester

The Bay View Middle School orchestra is for students who have an understanding in basic music reading, instrument assembly and maintenance, correct playing position, and sound production on their instrument. The class focuses on the refinement of tone quality, technique, and music theory. Middle school orchestra will perform at the Bay View Christmas and Spring concerts as their own ensemble and with our Upper School Orchestra. Students will also have the opportunity to perform at two different private recitals as soloists or in small group ensembles.

**** Understanding in basic music reading required. Experience playing a string, woodwind, or brass instrument for at least half a year. One (1) dress rehearsal the week of the Christmas concert and participation in the annual Christmas concert.***

8909 – INTRO TO PIANO KEYBOARD Grades 7 and 8
.5 Credit - 1 Semester

This course is designed for students with no previous instrument experience who are interested in learning to play piano. Students will learn basic music theory concepts and apply them to performance repertoire. Students will engage in individual as well as ensemble performance. A strong emphasis will be placed on the development of finger technique and good practice habits. It is recommended that students have a piano keyboard at home to practice skills outside of the classroom. The class is limited to 16 students.

****No previous instrument experience required.***

8917 – CHAMBER CHORAL/THEATRE - HONORS Grades 9, 10, 11, and 12
1 Credit or
8920 (FALL) 8921 (SPRING)
.5 Credit

This course will be a combination of choral music and theatre technique, providing the student with an exciting new way to experience the musical-theatre world. Students will develop their technique through vocal exercises, articulation, phrasing, 2 -3 part harmony, voice for the stage projection, movement, improvisation, scene study and more. The student will learn the art of classical and musical theatre skills, the end result – performance!

8904 – ORCHESTRA – HONORS Grades 9, 10, 11, and 12
1 Credit
8907 (FALL) 8922 (SPRING)
.5 Credit

Prerequisite –One year experience on an instrument

The Orchestra is a mixed-level ensemble that affords the student the opportunity to learn cooperation, responsibility, and self-discipline through musical expression. Students will review fundamental music theory and apply new skills to varied repertoire. Students who wish to participate in All-State Band and Orchestra are required to participate in this ensemble.

8909 – INTRODUCTION TO PIANO KEYBOARD –LEVEL 1 Grades 9, 10, 11, and 12
.5 Credit

This course is designed for students with no previous instrument experience who are interested in learning to play piano. Students will learn basic music theory concepts and apply them to

performance repertoire. Students will engage in individual as well as ensemble performance. A strong emphasis will be placed on the development of finger technique and good practice habits.

It is recommended that students have a piano keyboard at home to practice skills outside of the classroom. The class is limited to 16 students.

Required materials: Level 1 Piano Lesson Book, notebook, and folder

PHYSICAL EDUCATION AND HEALTH DEPARTMENT

It is the desire of the Physical Education/Health Department to nurture in each student the self-esteem which develops from being in one's best physical, intellectual, social, emotional and spiritual condition and the understanding that personal choices exert a powerful influence on their total wellness. Students will demonstrate health literacy and a commitment to life-long wellness with the knowledge, techniques, and strategies provided for making healthy choices. We endeavor to provide opportunities for all students through an array of offerings with technology-based activities and lessons. We provide a program that challenges and promotes lifelong fitness through participation in various physical activities in which students reach beyond their personal range of normal physical abilities.

GOALS

Upon completion of the Physical Education/Health program, the student will be able to:

- center activities around ideals of leadership and sportsmanship as a source of overall development, not just physical development;
- challenge herself through recreational play;
- assume personal responsibility and create experiences of responsible behavior for her own wellness;
- obtain, interpret, and understand basic health information and services in ways that benefit her health, as well as the health of those around her.

She will know and understand:

- the physical, intellectual, social, emotional, and spiritual dimensions of wellness;
- the skills involved with being a critical thinker, responsible citizen, self-directed learner, and an effective communicator;
- the specific components of wellness including personal health, stress management, nutrition, fitness, avoidance of alcohol, tobacco and other drugs, wholesome family life, disease prevention, and safety;
- a variety of physical activities that strengthen and develop individual and team sport skills, sportsmanship, and teamwork.

Ultimately, she will value:

- the role of physical activity and healthy choices in maintaining her total well-being beyond graduation;
- self-improvement over competition;
- taking responsibility for her health and the health of those around her.

All students are required by Rhode Island state law to participate in a physical education program at school. Bay View requires that each student earn .25 credit in physical education and .25 credit in health education each year. All students must participate and successfully

complete a physical education program unless a valid medical excuse from a physician is filed in writing with the Physical Education teacher and the school nurse.

0603, 0703, 0803 – PHYSICAL EDUCATION Grades 6, 7 and 8
.25 Credits

Students are introduced to challenging and enjoyable activities that promote knowledge of fitness and development. Physical fitness is promoted through participation in activities involving cardio respiratory endurance, flexibility, muscular strength, and endurance. As the students progress, they are introduced to the team concepts of soccer, basketball, volleyball, softball, and tennis. Through participation in these sports, leadership qualities and sportsmanship are developed. Physical fitness is promoted in aerobic, gymnastics, and fitness testing.

0604 – HEALTH EDUCATION Grade 6
.25 Credit

This course assists young girls in making the gradual adjustments necessary for adolescent life. This course assists students in increasing and strengthening the values and attitudes that will favorably influence their relationships with others.

0704 – HEALTH EDUCATION Grade 7
.25 Credit

This course assists the young teenager in making the gradual adjustments necessary to lead a healthy and happy adult life. It strives to make her aware of her real worth and of the values and attitudes that will favorably motivate her personal behavior and relationship. Special attention is given to the teenage problem of cigarette smoking.

0804 – HEALTH EDUCATION Grade 8
. 25 Credit

This course reviews the material of grade seven and strives to strengthen the student's concept of her own real worth and of values and attitudes that will favorably motivate behavior and relationships. Special attention is given to the teenage problems of alcohol and drugs.

0901 – PHYSICAL EDUCATION Grade 9
.25 Credit

The focus of this course is the development of a basic understanding of the rules and application of the skills required for participation in various team activities. Use of the fitness center for cardio-respiratory and strength training routines is introduced. This course is not factored into the computation of the student's grade point average.

0902 – HEALTH EDUCATION Grade 9
.25 Credit

This health course deals with strengthening personal health habits and the formation of values and attitudes towards health as a "way of life." Goal setting and decision-making skills are introduced. Students are also introduced to the concept of health literacy and the skills

necessary for becoming health literate. This course is not factored into the computation of the student's grade point average.

0903 – PHYSICAL EDUCATION **Grade 10**
.25 Credit

This course focuses on the continuation of skill development in team activities at the intermediate level. The understanding of the rules and regulations of each activity continues to be emphasized and applied along with activity strategies. Students continue to utilize the fitness center to improve cardio-respiratory and muscular fitness. This course is not factored into the student's grade point average.

0006 – HEALTH EDUCATION **Grade 10**
.25 Credit

This course informs students about issues concerning health enhancing behaviors along with reducing health risks; interpersonal communication skills; and developing healthy family and peer relationships. Students continue to develop health literacy skills. This course is not factored into the computation of the student's grade point average.

0103 – PHYSICAL EDUCATION **Grade 11**
.25 Credit

This course emphasizes the further development of personal skill proficiency in team activities, recreational activities, and refinement of individual physical conditioning and strength toning programs. The rules, strategies, and skills of team activities, recreational activities and physical training are emphasized, along with organizational skills, cooperation and leadership qualities. This course is not factored into the computation of the student's grade point average.

0106 – CAREERS IN HEALTH & HEALTH CARE SYSTEM **Grade 11**
.25 Credit

This course is designed to allow students an opportunity to research and discover the career opportunities in Health and public service through classroom activities, guest speakers, field trips, community service, and text and action research. Students will also learn the importance of communication and professionalism in the healthcare field.

0105 – NUTRITION **Grade 11**
.25 Credit

This course provides students with an overview of good nutrition principles that are necessary for physical and mental wellness and a long, healthy life. Instructional materials include the MyPlate guidelines on creating variety in your diet, basic nutrients, weight management, sports and fitness, and life-span nutrition. This course also emphasizes an understanding of today's food and eating trends and gives students the capacity to intelligently evaluate all available sources of nutrition information and make informed decisions.

0204 – PHYSICAL EDUCATION **Grade 12**
.25 Credit

This course focuses on a continuation of skill development in team activities and recreational activities as well as refining individual physical conditioning and strength training programs. Leadership and social skills associated with the activities offered will continue to be stressed as

students assist classmates in developing proficiencies within the various activities. The importance of lifelong fitness through activity and recreational play is emphasized throughout this program. This course is not factored into the computation of the student's grade point average.

0205 – FIRST AID/CPR/AED **Grade 12**
.25 Credit

This course is a concentrated class of the American Red Cross First Aid/CPR/AED course to receive certification. It will teach students how to recognize and respond appropriately to cardiac, breathing, and first aid emergencies.

NOTE: This course is also offered in June at the conclusion of the school year at an extra cost.

0206 – FITNESS FOR LIFE **Grade 12**
.25 Credit

This class enables students to incorporate health and physical behaviors into their lifestyles. Emphasis will be in the following area: components of physical fitness, biomechanical and physiological principles, safety practices, lifestyle assessment, and design of a personal fitness program. It consists of the many aspects of fitness including but not limited to cardio workouts, circuit workouts, pyramid workouts, free weight workouts, etc. This class takes place in the fitness center.

SCHOOL-TO-CAREER

9250 – CAREER LAUNCHPAD **Grade 11**
.25 Credit

The Career Launchpad program is required of all juniors. The purpose is to explore career interests among a small group of similarly interested students, guided by a mentor/mentors with experience in the field. Monthly seminar-type meetings will focus on a variety of topics, including case studies, networking, educational pathways, Mercy in the workplace, and work/life balance, and may require some preparation on the part of students. At the completion of the program, students will work in groups to create short presentations about their career exploration experiences to be shared with the community and sophomore classes. This course is not factored into the computation of the student's grade point average.

9249 – PASSION PROJECT LAUNCHPAD **Grade 12**
.25 Credit

In recognition of the value of developing the whole person, second semester seniors will be required to plan and execute a Passion Project to explore an area of personal interest. Working with a mentor, students will develop a timeline and an expectation of what constitutes successful completion of the project. Projects will be shared and celebrated with the community during the weeks leading up to graduation. This course is not factored into the computation of the student's grade point average.

VIRTUAL HIGH SCHOOL

Full Year - 1 credit
Semester - .5 credit

Prerequisites for taking any VHS course are as follows:

- Basic computer skills
- Good academic standing at Bay View
- Demonstrated ability for independent study
- Approval of parent/guardian, guidance, and school administration
- VHS courses are treated with the same criteria as a course offered on campus

Virtual High School (VHS) is a non-profit global collaboration of partner schools that offers on-line courses that range from advanced academic disciplines to technical and specialized classes. All courses are approved by the NCAA and the College Board Advanced Placement Program. There are more than one hundred courses available for independent study, and they can be accessed at vhslearning.org. Successful completion of a VHS course will earn credit towards a Bay View diploma and will be recorded on the student's transcript.

A student taking a VHS class will register for the class on her own and make payment directly to VHS. A student taking a VHS course will be given an unassigned period in her school schedule as an accommodation. Any student enrolled in an AP course through VHS must sign an AP Student Agreement; must pay the AP exam fee to Bay View; must pay an additional AP fee of $75 (subject to change) to VHS; and must take the AP exam at Bay View in May. If a student would like to drop a VHS course after the add/drop period, it will be indicated on a student's transcript as W/F (withdrawal/failure).

Students must be aware that they are expected to meet all the requirements of the VHS instructor in order to be successful in this class. All policies regarding grading, make-up work, late assignments, etc., are established by VHS.

RHODE ISLAND COLLEGE EARLY ENROLLMENT PROGRAM

The Rhode Island College Early Enrollment Program is a concurrent enrollment program that offers college credit at Rhode Island College to high school students for certain courses which they take at their respective high schools. The EEP provides the means for high school students to get a head start in college by obtaining college credits at Rhode Island College and transferring those credits to the institution that they attend after graduation from Bay View. The EEP is also a formal program that fosters communication between high school teachers and college professors and creates an educational relationship between the high school and the college community. For a detailed explanation of the Rhode Island College Early Enrollment Program, transferring of credits, and/or other important information, please call the EEP office at 401.456.8857 or email them at eep@ric.edu.

NACEP, the National Alliance of Concurrent Enrollment Partnerships, of which Rhode Island College is a charter member, provides guidelines and standards to which concurrent enrollment programs must adhere to maintain membership. It is the adherence to these standards that maintains credibility and excellence among programs such as the EEP and will assure its students credit transfer among many colleges and universities in the United States.

Anticipated EEP classes for the 2020/21 school year: Honors Italian 4, and AP US History.