

Course Catalogue



2024-2025

High School Graduation Requirements:

A Saint Paul student must accumulate a minimum of (24) total course credits in order to graduate. All Saint Paul students must be enrolled in (6) academic classes per semester. The minimum of (24) total course credits must be earned in the following disciplines (one credit is equal to a full-year course, a (0.5) credit is a half-year/semester course).

- (4) credits Theology
- (4) credits English (not including English Seminar)
- (4) credits Mathematics (not including Math Seminar)
- (3) credits Science (Biology and Chemistry are required)
- (3) credits Social Studies (U.S. History is required)
- (2) credits World Languages (two high school credits in the same language)
- (3) credits Electives
- (0.5) credits Technology
- (0.5) credits Fine Arts

All students are required to be enrolled in, and tuition rates are based upon, six academic courses per semester. When available, and for an additional credit fee, a seventh course may be chosen in lieu of a study period. A fee waiver may be granted for a course in Fine Arts or Computer Science. Final approval of any additional course request is at the discretion of the Principal.

Academic Course Levels:

Saint Paul utilizes the following academic course levels. Many factors contribute to level placement including standardized testing performance, academic achievement, teacher recommendation, department chair recommendation, and completed coursework.

Advanced Placement (AP)

AP courses are highly rigorous classes designed for academically outstanding college-bound students who have demonstrated exceptional academic achievement through a combination of ability and motivation. AP courses cover a collegiate-level depth and breadth of curricular material, with the expectation for student readiness to engage independent learning at the level of an undergraduate. Please refer to the section below on Advanced Placement (AP) for more details.

Honors (H)

Honors courses are rigorous classes designed for college-bound students who have shown exceptional academic achievement through ability and motivation. Honors courses cover a greater depth and breadth of curricular material than our Accelerated College Prep classes, with the expectation for increased independent learning on the part of the student.

Accelerated College Preparatory (ACP)

Accelerated College Preparatory courses are classes designed for college-bound students who have demonstrated commendable levels of academic achievement through a combination of ability and motivation. ACP courses cover a greater depth and breadth of curricular material than our College Preparatory classes, with the expectation for independent learning on the part of the student.

College Preparatory (CP)

College Preparatory courses are classes designed for college-bound students who have demonstrated proficient levels of academic achievement. CP courses cover a depth and breadth of curricular materials according to grade appropriate state and national standards. Mastery of subject-specific content and skills is facilitated through the acquisition and development of primary learning domains.

Virtual High School:

Saint Paul partners with VHS Learning, a nonprofit educational provider that organizes world-class online learning programs. Since 2004, VHS courses have included core subject classes, elective offerings, and Advanced Placement courses. Saint Paul students can utilize VHS to expand upon the course offerings available within our school building to elect courses that we are not currently offering.

VHS classes consist of students from around the world, giving students the opportunity to work with a diverse group of peers. Class assignments include group projects, interactive lessons, and group discussions, giving every student a chance to participate and be heard in class. VHS classes have weekly due dates for assignments. Students can access their coursework anywhere they have internet access. For Saint Paul students, VHS classes are incorporated into the academic schedule.

Due to the limited number of seats available, there is an application and approval process for Saint Paul students seeking VHS registration. Additional fees for VHS classes may apply. A Saint Paul student is limited to two VHS course credits during their high school career. Please contact the School Counseling Office for more registration details.

To learn more about a week in the life of a VHS Learning student:

<https://vhslearning.org/students#week>

To review the entire course catalog of more than 200 VHS courses:

<https://vhslearning.org/catalog>

College Board Advanced Placement Courses:

Advanced Placement courses and curricular standards are created and certified by the College Board in consultations with college-level educators in that field of study. AP courses allow academically prepared students to complete college-level studies during their high school years. High school courses designated as AP must be audited and approved by the College Board. The Saint Paul CEEB code is 220059.

AP courses are highly rigorous classes designed for academically outstanding college-bound students who have demonstrated exceptional academic achievement through a combination of ability and motivation. AP courses cover a collegiate-level depth and breadth of curricular material, with the expectation for student readiness to engage independent learning at the level of an undergraduate. AP courses demand a significant investment of additional hours of independent study, including the completion of pre-course summer assignments. Due to the intensity of AP work, Saint Paul students are advised to enroll in no more than three AP classes per academic year.

An Advanced Placement class culminates in a national exam administered by the College Board. All Saint Paul students registered for an AP course must take the AP administered national exam in fulfilling the course requirements. Scores on the exam may qualify students for college credit or advanced standing as determined by the colleges. There is an additional fee for each AP exam, which is paid by the student's family. Also, additional fees for AP classes may apply.

Given the highly selective nature of AP courses, there is an application and approval process for Saint Paul students seeking AP course registration. All Saint Paul AP courses are subject to scheduling availability and student enrollment. Please contact the School Counseling Office for registration details.

More information on the content and expectations for any AP courses can be found online at the College Board Website:

<https://apstudent.collegeboard.org/apcourse>

Saint Paul AP course offerings include:

- AP English Language & Composition
- AP English Literature & Composition
- AP Calculus
- AP US History
- AP US Government & Politics
- AP Psychology
- AP European History
- AP Biology
- AP Chemistry

- AP Physics C – Mechanics
- AP Spanish Language & Culture
- AP Studio Art
- AP Music Theory
- AP Computer Science

As with all Saint Paul course offerings, including AP, course availability is dependent upon several factors such as total student enrollment, course registrations, student interest, staffing needs, academic prerequisites, and master scheduling.

Assumption University-Saint Paul Partnership

The Assumption University-Saint Paul Partnership offers qualified junior and senior year students the opportunity to pursue undergraduate coursework through the Assumption Scholars Program at Saint Paul. This program provides opportunities for academically talented and motivated Knights to take dual enrollment courses at Assumption.

Dual enrollment courses are available to our Knights tuition-free when space allows after Assumption undergraduates have selected their courses. As such, more detailed information on course offerings will be provided by Assumption when available. For more information on this program, please contact our school counseling office.

THEOLOGY DEPARTMENT

The Story of Jesus

Grade 7
Full Year

The purpose of this course is to explore the person of Jesus Christ through His birth, life, death, and resurrection as reflected in the Bible and Christian history. Central to this course is the theme of discipleship and what it means to live as a Christian. Questions examined in this course are: What is faith? What does it mean to walk in the footsteps of Christ? As an emerging adolescent, how does one acquire a mature understanding of the Bible and the life of Jesus?

The Story of the Church

Grade 8
Full Year

Building on the idea of Christian discipleship from Grade 7, this course advances student comprehension of curricular concepts in examining the importance of community and

partaking in the life of the Church. Students will use the four marks of the Church (One, Holy, Catholic, and Apostolic) to reflect on community life both past and present. The questions explored in this course are: How do we live as a community of faith? What does it mean to be a disciple in relation to the Church, The People of God? How does the Catholic Church reflect these realities through its history and practice?

Theology 1

Grade 9

1 Credit

The goal of this first-year course is to serve as an introduction to religious studies with the aim of deepening student understanding of the Catholic faith. This course seeks to provide students with an understanding of a variety of sources of revelation – both natural and divine – about God. Topics of study include: the primary importance of Sacred Scripture and its role in the Judeo-Christian tradition, covenantal theology, and the importance of Jesus as the Incarnation – the Living Word made flesh. Spirituality and prayer are additional components woven throughout the curriculum. During the year, students are encouraged to grow in religious knowledge and invited to deepen their lives of faith. This course corresponds with the first two semesters of the U.S. Conference of Catholic Bishops' *Doctrinal Elements of a Curriculum Framework*.

Theology 2

Grade 10

1 Credit

This sophomore year course builds upon the Scriptural studies begun in freshman year with the goal of deepening student understanding of the Gospel message of Jesus Christ. Topics of study include human sin, grace, redemption, and how Jesus is the fulfillment of God's covenant. Salvation history is explored through a study of biblical texts, culminating with a study of the life and ministry of Jesus and our redemption through His death and resurrection. The latter part of the course focuses on the Church as a means of encountering the living Jesus. The sophomore course corresponds with the third and fourth semesters of the U.S. Conference of Catholic Bishops' *Doctrinal Elements of a Curriculum Framework*.

Theology 3

Grade 11

1 Credit

The goal of this junior year course is to engage students in an in-depth study of Catholic morality and sacramental theology. Topics of study include sources, dimensions, and

applications of Christian virtues, ethics and morality, an in-depth study of the Sacraments of Initiation (Baptism, Confirmation, and the Eucharist), the Sacraments of Healing (Reconciliation and Anointing of the Sick), and the Sacraments at the Service of Communion (Matrimony and Holy Orders). The junior course corresponds with the fifth and sixth semesters of the U.S. Conference of Catholic Bishops' *Doctrinal Elements of a Curriculum Framework*.

*** Seniors must take at least two of the following three semester options in theology. ***

World Religions

Grade 12

0.5 Credit

The primary objective of this senior semester course is to address the Church's mandate for Christians to grow in tolerance, understanding, and fellowship with our brothers and sisters around the globe. The study of the principles of the great religions of the world and the common elements found in these traditions serve to contextualize this course. Topics of study include: the human condition, religious anthropology, the nature of religion, ecumenism, and the quest for ultimate reality. In the context of a Catholic Christian environment, students deepen their understanding of their own faith, while surveying the similarities and differences of others. This course corresponds with the senior electives, *Ecumenical and Inter-religious Issues* and *Living as a Disciple of Jesus Christ in Society*, described in the U.S. Conference of Catholic Bishops' *Doctrinal Elements of a Curriculum Framework*.

Living in Peace and Justice

Grade 12

0.5 Credit

The goal of this senior semester course is to deepen student appreciation of the Christian mandate to live as people who further God's Kingdom of peace and justice. This mandate to put Catholic social teaching into practice is rooted in Jesus' call to participate in the Kingdom of God, a vision introduced in the Book of Genesis, described by the prophets, and embraced by numerous saints throughout the ages. This course explores the work of saints and religious figures in relation to many issues addressed by Catholic Social Teaching.

Topics of study correspond to the Seven Themes of Catholic Social Teaching:

- Life and Dignity of the Human Person
- Call to Family, Community, and Participation
- Rights and Responsibilities
- Option for the Poor and Vulnerable
- The Dignity of Work and the Rights of Workers
- Solidarity
- Care for God's Creation.

This course corresponds with 'Living as a Disciple of Jesus Christ in Society', described in the U.S. Conference of Catholic Bishops' Doctrinal Elements of a Curriculum Framework.

The Religious Quest

Grade 12

0.5 Credit

The quest for genuine truth is an authentic human endeavor that persistently asks challenging questions to seek a deeper understanding of reality. Reading, writing, and discussion intensive, this course allows students to investigate the Catholic Church's rich historical tradition of contemplating God's Creation with both faith and reason. By integrating sound Catholic theology and modern scientific theory, students will discover the depth of insight found in the honest examination of the universe and mankind's place within it. Upon completion, students will enter the wider world with a larger, more coherent view of existence and the tools for entering sincere dialogue with skeptics regarding the Church's teachings on the harmony between the Catholic faith and modern science. This course samples a variety of topics selected from the five senior electives as outlined in the U.S. Conference of Catholic Bishops' Doctrinal Elements of a Curriculum Framework. [A. Sacred Scripture, B. History of the Catholic Church, C. Living as a Disciple of Jesus Christ in Society, D. Responding to the Call of Jesus Christ, and E. Ecumenical and Interreligious Dialogue.

ENGLISH DEPARTMENT

English Literature

Grade 7

Full Year

The purpose of this course is to develop an appreciation for literature and to develop students' skills in grammar, composition, oral expression, and vocabulary development. Through an analysis of literary works and genres, students will develop reading comprehension and critical thinking skills which will then be integrated into the writing process. In addition to the literature text, language arts skills at the junior high level will be guided by a developmental vocabulary workbook series.

English Literature & Composition

Grade 8
Full Year

English Literature and Composition will review and expand the language arts previously taught, with particular emphasis on the elements of literature, writers' craft, and structure through the analysis of individual texts. These skills will be integrated into the formal academic writing process to build the skills necessary for transitioning to high school. Language mechanics and grammar review are a regular component of the course. In addition to the literature text, language arts skills at the junior high level will be guided by a developmental vocabulary workbook series.

Literature & Composition I

Grade 9
1 Credit

The goal of this course is to provide students with a solid foundation for advanced study in literature and to teach effective writing for high level writing in English and across the curriculum. Students will learn composition and organization skills that will enable them to write better and more confidently. Students will master the rules and conventions for written Standard American English through a study of language and grammar. Literary study will be connected to the study of writing. Students will develop a knowledge of a wide range of literary terms relating to the structural elements and the dynamics of each literary genre and learn how to apply these terms to analyzing the content and meaning of literary works. Students will also be taught the process of writing a research paper. High school level study skills will also be taught.

Literature & Composition II

Grade 10
1 Credit

The purpose of this course is to advance previous curricular critical thinking and literary analysis skills in the content areas of literature, language, and composition. Topics include recognizing structural elements, themes, and literary perspective, elements of rhetoric, writers' craft and continued academic vocabulary development. Conventions of grammar and effective academic writing strategies are emphasized throughout the year. In each of these learning areas, pace is adjusted to the ability of the class.

American Literature

Grade 11
1 Credit

This course covers American literature from its beginnings to the present. Students will learn to enhance their critical thinking skills through reading, writing, and speaking in class. Students will regularly write essays moving from personal essays to analytical essays

and hone their sense of voice in their writing. Topics covered include vocabulary development, preparation for standardized testing and ways for students to explore their college essay in preparation for senior year. Each level will also be assigned outside novels and/or plays to supplement the textbook.

AP English Language & Composition

Grade 11

1 Credit

The purpose of this College Board Advanced Placement English Language & Composition course is to engage students in collegiate level coursework and encourage the development of a broad and sophisticated understanding of English language and composition skills necessary to succeed on the AP English Language & Composition exam. This course is designed to enable students to become more skillful readers and effective writers through exposure to a wide variety of nonfiction prose. Students are challenged to closely examine and evaluate these complex texts from a rhetorical perspective. Students undergo a rigorous and diverse regimen of writing exercises and essay assignments that require them to explore and work towards the mastery of various rhetorical concepts, devices, and modes. Students are expected to personally invest themselves in their reading and writing to a degree that will enable them to meet and exceed the current standards in a college-level English course. All students enrolled in the course must take the AP Language & Composition exam at the end of the academic year. Prerequisites for this course include the recommendation of the student's sophomore-year teacher and the approval of the department chair.

British Literature

Grade 12

1 Credit

This course focuses on the study of British literature, incorporating literary interpretation, reading comprehension, research, writing, listening, and speaking skills with works from the Anglo-Saxon period to the late twentieth century presented in historical context. Course study will include a variety of genres within British literature presented chronologically, with a focus on representative "master works" and their historical and cultural influences. Readings are comprised of poetry, essays, short stories, and dramatic representative works. Grammar, composition, and vocabulary development are also incorporated into course instruction. Regular writing assignments will develop and refine students' analytical and critical thinking skills. Workshops in drafting and editing essays will incorporate and review language mechanics and grammar. Students will produce a multi-source research paper using MLA-style format and citations. Students will also be assigned outside novels and/or plays to supplement the textbook.

AP English Literature & Composition

Grade 12

1 Credit

The purpose of this College Board Advanced Placement AP English Literature & Composition course is to provide students with an intensive study of English through a college level analysis of a variety of types of literature and writings designed to expose students to a college environment in preparing for the AP English Literature & Composition exam. Students will learn to be skilled writers who compose for various audiences, purposes, and occasions. Students will begin to understand the nuances of diction, style, form, voice, and structure in their own writings and learn necessary argumentative and analytical skills. Topics of study include a variety of genres from a cross-section of eras in the European, American, Asian, and African traditions. Students will examine the historical, social, and cultural values necessary to the piece's analysis. Students will write both short and long pieces and will be taught in detail the skills of drafting, editing, writing, and revision. Students will write frequently in class and undertake a thorough literature approach. All students taking the course must take the AP Literature & Composition exam at the end of the academic year. Prerequisites for this course include the recommendation of the student's junior-year English teacher and the approval of the department chair.

MATHEMATICS DEPARTMENT**Math 7**

Full Year

The goal of this course is to introduce students to algebraic thinking. Grade 7 math focuses on developing the following skill sets: applying proportional relationships, understanding of operations with rational numbers, working with linear expressions and equations, solving problems involving scale drawings and informal geometric constructions, working with 2- and 3-dimensional objects to solve problems involving area, surface area and volume, and drawing inferences about populations based on samples.

Math 8

Full Year

The purpose of this course is to advance the concrete skills learned in elementary school through the application of the more abstract mathematical concepts of high school mathematics. Grade 8 math topics of study include: formulating and reasoning about expressions and equations, including modeling an association two variables with a linear equation, solving linear equations and systems of linear equations, grasping the concept of a function and using functions to describe quantitative relationships, analyzing two- and

three-dimensional space and figures using distance, angle, similarity, and congruence, and understanding and applying the Pythagorean Theorem.

(NOTE: Upon teacher recommendation, a small number of students may be able to bypass 8th grade math and take Algebra I.)

Algebra I

Grade 9

1 Credit

The primary goal of this course is to develop confidence and fluidity in dealing with algebraic expressions and equations. Algebra I extends the ideas formed in earlier courses with a focus on the following areas: analyzing relationships between quantities and reasoning with equations: writing, interpreting, and translating between various forms of linear equations and inequalities, and using them to solve problems: working with functions given by graphs, equations and tables, exploring systems of equations and inequalities, understanding integer exponents to consider exponential functions: extending the laws of exponents to rational exponents: operating with polynomials.

Geometry

Grades 9 – 10

1 Credit

The purpose of this course is to develop students' spatial and logical reasoning skills. This course involves primarily plane geometry with work in three dimensions. Topics of study include induction, deduction, elementary principles of logic, properties of lines, angles, polygons, circles, measurement (length, area, and volume), congruence, similarity, ratios, and proportions. Also included are introductions to trigonometry, coordinate geometry, and formal proofs.

Algebra II

Grades 10 – 11

1 Credit

The purpose of Algebra II is to build upon the foundations of Algebra I. Advancing the concepts of linear, quadratic, and exponential functions, students extend their understanding of functions to include polynomial, rational, and radical functions. Students work closely with the expressions that define the functions and continue to expand their abilities to model situations and to solve equations, including solving quadratic equations over the set of complex numbers and solving exponential equations using the properties of logarithms. Trigonometry may be introduced.

Pre-Calculus

Grades 11 – 12

1 Credit

This course is designed for students seeking higher mathematics in preparation for Calculus. Topics will include exponential and logarithmic functions, rational equations, conic sections, trigonometry and trigonometric applications, inverse trigonometric functions, probability, statistics sequences, and series including sigma notation, and the course will conclude with parametric equations and introduction to limits. Prerequisite: Successful completion of Algebra II (Honors: Accelerated College Prep).

Advanced Algebra/Trigonometry

Grade 12

1 Credit

The purpose of this course is to extend students' comprehension and mastery of those concepts learned in Algebra II. Topics of study include Algebraic Reasoning, Linear Equations and Inequalities, Problem Solving, Systems of Equations, Operations with Exponents and Polynomials, Factoring Polynomials, Rational Expressions and Equations, Roots and Radicals and Quadratic Equations. Prerequisite: Successful completion of Algebra II.

Calculus

Grade 12

1 Credit

This course enables students to study mathematical functions and the way they change. Topics include limits, functions, derivative of functions, applications of the derivative, curve sketching, analysis of graphs, areas under and between curves, integration of functions, transcendental functions, and applications of integration. Prerequisite: Successful completion of Pre-Calculus (Honors).

AP Calculus

Grade 12

1 Credit

This College Board Advanced Placement Calculus course engages students in collegiate level coursework emphasizing initiative and inquiry in preparing students for the College Board Advanced Placement Calculus Exam. Topics of study include limits, functions, derivative of functions, applications of the derivative, curve sketching, analysis of graphs, areas under and between curves, integration of functions, transcendental functions, and applications of integration. Students enrolled in this course are required to take the AP Calculus Exam at the end of the academic year. Prerequisite: Pre-Calculus (Honors) and teacher/chair recommendation

SOCIAL STUDIES DEPARTMENT

Early US History & Civics

Grade 7

Full Year

The goal of this course is to acquaint students with the rights and responsibilities of United States and Massachusetts citizenship and the process, in history, by which those rights and responsibilities were born. Topics of study include the history of European colonization of North America, the development of colonial society, the events that led the British North American colonies toward independence, the American Revolution, the Articles of Confederation and the US Constitution, and debates about how to implement the Constitution in the early history of the United States. Since there will be a strong Civics component to the course, another course objective will be to educate students in the skills necessary to participate in civil society. Topics of study will include the foundations and development of the United States government, the language of the Constitution, the rights and responsibilities of citizens, the structure of Massachusetts state and local government, and media literacy in a free democracy. Throughout the year, students will analyze primary and secondary sources and interpret maps, charts, and graphs. Students will develop their understanding of causal relationships, their skills in summarizing, comparing, and contrasting the information they discover, and the importance of context in history. Project-based work will focus on research, writing, proper attribution, and the exploration of creative techniques for logical and organized communication in work product presentation.

World History I

Grade 8

Full Year

World History I is a course designed to acquaint the student with the basic historical events that shaped the character and the advancement of man from the rise of Europe during Medieval times, the Byzantine Empire, and Muslim Civilizations as they merged into the Kingdoms and Trading States of Africa and Southeast Asia. The course will culminate with an understanding of the Age of Exploration beginning with the Renaissance and ending with the Age of Absolutism. Throughout the course, emphasis is placed on the comparison of the various social, economic, and political developments of man.

World History II

Grade 9

1 Credit

World History II is a completion of a two-year voyage that has encouraged the student to understand the basic historical events that have shaped the character and the advancement of man. World History II will explore the world as it forges ahead into the wonders of the Enlightenment, the Industrial Revolution, the French Revolution, Nationalism, Imperialism, and Totalitarianism. The course will examine World War I and World War II from a global perspective as well. Throughout the course, emphasis is placed on the comparison of the various social, economic, and political developments of man.

US History I

Grade 10

1 Credit

The purpose of this course is to help students acquire the broad understanding of US History and Government necessary to be active and informed citizens. Topics from US History between the late 1700s and 1917 to be covered will include the American Revolution, the US Constitution, Early National Period, Jeffersonian Era, Industrial Revolution, Jacksonian Era, slavery in American, Antebellum-era reform movements, westward expansion, the Civil War, Reconstruction, Gilded Age, and Populist and Progressive reform movements. The course will also focus on American government and politics with special attention paid to the development and features of the US Constitution and the structure, powers, and interaction between the three branches of the federal government. World History II is a prerequisite of this course.

US History II

Grade 11

0.5 Credit

Fall Semester

The purpose of this semester course will be to build upon the understanding of US History through 1917 that students acquired in US History I. Topics from US History to be covered include World War I, the 1920s, the Great Depression and New Deal, World War II, the Cold War, reform movements of the 1950s-1970s (including the women's movement and civil rights movement), Watergate, the Conservative Revolution and Twenty-First Century America. The course will also emphasize the development of American government and politics throughout the Twentieth Century and into the Twenty-First, including the growth of federal power and the role of the federal court system in the civil rights revolution. A special requirement of the course will be the completion of a research project, based on the National History Day model. US History I is a prerequisite of the course.

AP US History

Grade 10,11,12

1 Credit

The purpose of this College Board Advanced Placement US History course is to engage students in collegiate level coursework and encourage the development of a broad and sophisticated understanding of US History, and the skills necessary to succeed on the AP US History exam. The course will enhance students' understanding of all periods of US History through the present. Students will develop historical thinking skills including analyzing primary and secondary sources: developing historical arguments: making historical connections: and utilizing reasoning about comparison, causation, and continuity and change over time. Students will also study college-level research skills and produce a major research paper in the spring. Students enrolled in this course are required to take the AP US History exam at the end of the academic year. The recommendation of the student's most recent social studies teacher and the approval of the department chair are prerequisites for this course.

AP US Government & Politics

Grades 11 - 12

1 Credit

The purpose of this College Board Advanced Placement US Government & Politics course is to engage students in collegiate level coursework and encourage the development of a broad and sophisticated understanding of US government and politics, and the skills necessary to succeed on the AP US Government & Politics exam. Topics of study will include the philosophical foundations of American government, the Articles of Confederation and US Constitution, the Federalist Papers, Federalism, Interest Groups, voting, elections and political ideologies, campaign finance regulations, political demographics, Congress, the presidency, and the federal courts and constitutional law. Because much of what students study in the course will be reflected in current events, students will also be encouraged to follow and discuss current political and governmental issues. Students enrolled in this course are required to take the AP US Government & Politics exam at the end of the academic year. The recommendation of the student's junior-year US History teacher and the approval of the department chair are prerequisites for this course.

US Government & Politics

Grades 11 - 12

0.5 Credit

The purpose of this semester elective is to engage students in a foundational survey of American government and politics through a nonpartisan introduction to key political concepts, ideas, institutions, and policies that characterize the constitutional system and political culture of the United States. Students will study foundational documents, landmark Supreme Court decisions, and other texts and visuals to gain an understanding of

the relationships and interactions among American political institutions. Students will also engage in disciplinary practices that require them to read and interpret data and make comparisons and applications.

Psychology

Grades 11 – 12

0.5 Credit

The goal of this semester elective course is to provide students with a foundational understanding of psychology through a survey study of the field. As such, this course will cover the following topics: The Science of Psychology, The Biological Basis of Behavior, Sensation and Perception, Learning, Cognition and Mental Abilities, Personality, and Psychological Disorders. This class will provide students with a broad understanding of the foundations of neuroscience and the structures of the brain: how the human mind works, and how our understanding of the human mind has changed over time. This will be a writing intensive class. Students in this class will be challenged to develop their writing, both in terms of structure and grammar, but also within their ability to adhere to conventions of the field. Students will be challenged to analyze, contextualize, and create arguments surrounding events and theories from psychology, thus beginning to build skills that will be used in future academic pursuits. To enroll in this class a student must first be recommended for it by their most recent Social Studies teacher.

AP Psychology

Grades 11 – 12

1 Credit

This College Board Advanced Placement course will survey the many focus areas within Psychology. The course is designed to provide students with a broad and sophisticated understanding of this complex and nuanced field, preparing students to excel on the AP Exam. In addition to preparing students for the AP Exam, this class also contains a large research component designed to prepare students for collegiate research. As such, the improvement of students' writing, speaking, and analytical skills will be a primary mission of the course. This Advanced Placement course requires diligent work, and as we will cover several subfields of psychology (e.g., Biological Basis of Behavior, Psychological Theory, Psychological Disorders, Emotion, Personality, Perception, and States of Consciousness, amongst others), each of which will have to be covered in an accelerated manner that requires independent time on task. Students enrolled in this course are required to take the AP Psychology exam at the end of the academic year. Admission to this elective College Board AP course requires the recommendation of the student's most recent social studies teacher and the approval of the department chair.

AP European History

Grades 10, 11, 12

1 Credit

The purpose of this College Board Advanced Placement course is to equip students with the necessary content and skills to investigate momentous events, individuals, developments, and processes in European history from approximately 1450 to the present, preparing students to excel on the AP Exam. Students will develop historical thinking skills including analyzing primary and secondary sources, developing historical arguments, making historical connections, and utilizing reasoning about comparison, causation, and continuity and change over time. Students will explore the interaction of Europe and the world, economic and commercial development, cultural and intellectual development, states and other institutions of power, social organization and development, national and European identity, and technological and scientific innovations. Students enrolled in this course are required to take the AP European History exam at the end of the academic year. Students must have completed at least World History II to enroll in this class. Also, admission to this elective College Board AP course requires the recommendation of the student's most recent social studies teacher and the department chair's approval.

Criminal Justice

Grades 11 – 12

0.5 Credit

The goal of this semester elective course is to provide students with a foundational survey of Criminal Justice with a focus on the various processing stages, practices, and field personnel in the criminal justice system. This course examines law enforcement and the problem of crime in American society. Both historical and contemporary components of the system, including the police, the courts, and correctional agencies, are explored. Students will examine the effects of crime on communities and the criminal justice system response to crime in our contemporary society. Prerequisite: US History I, department chair approval.

Eastern European History

Grades 11– 12

0.5 Credit

The purpose of this semester elective course is to develop student appreciation for the dynamic historical events of Eastern Europe from the 14th century to the end of the 20th century. Topics of study include: the end of Mongol rule, the rise of Russia, the wars of religion, the rise of Poland and Lithuania, the turmoil in the Balkans, the Age of Revolution, the breakup of Austria-Hungary, and survey the modern era, ending with the fall of the Berlin Wall and the end of the Cold War: an event that historian Francis Fukuyama termed "The End of History." This elective course will also focus on the major events happening in Eastern Europe in nations such as Russia, Poland, Ukraine, the Czech Republic, as well and

the Baltic and Balkan nations. Students who wish to take this course should gain approval from their most recent social studies teacher.

Introduction to Personal Finance

Grades 11 – 12

0.5 Credit

The purpose of this course is to empower students to define their personal values and make smart financial decisions that help them achieve their goals. This elective semester course is designed to help students avoid early financial mistakes and provide tools needed to secure a solid foundation for the future. Some of the topics covered would be Earnings and Income, Personal Taxation, Checking Accounts, Credit Scores, Credit Cards, Loans, Housing Decisions, Savings, Investments, Risk Management, Insurance, Retirement and Estate Planning.

Economics

Grades 11 – 12

1 Credit

The purpose of this elective course is to introduce students to basic economic concepts, institutions, relationships, and terminology. Students will learn how to use economic thinking in their course work, careers, and everyday lives. Topics to be explored would be economic decision making, economic systems, demand, supply, price determination, goals, and problems of the macroeconomy, the role of government in the macroeconomy, monetary theory, monetary policy, the Federal Reserve, benefits, costs, labor markets, unions, distribution of income, international trade, and international finance.

SCIENCE DEPARTMENT

Life Science

Grade 7

Full Year

The goal of this course is to engage students in the fundamentals of biology and equip them with the necessary skills for further study at the high school level. This life science course investigates the diversity, complexity, and interconnectedness of life on Earth. Topics of study include scientific inquiry and method, cell structure, organisms, and ecosystems.

Physical Science

Grade 8

Full Year

Building upon the curricular concepts advanced in Grade 7 Life Science, this course engages students in the discussion and application of scientific inquiry and skills with particular attention paid to the research of scientists through the study of matter, solids, liquids, and gases, energy, heat, atomic structure, elements, solutions, and chemical reactions. Hands-on and applied lab work and demonstrations are used to reinforce scientific theories and learning objectives.

Biology

Grade 9

1 Credit

The goal of this course is to introduce key concepts of chemistry that will apply throughout the study of life. Through the study of cells, students will be able to identify the theme of correlation between structure and function, understand life at the cellular level, and trace the history of genetics from Mendel to DNA technology. This course begins with a review of the science of biology and an in-depth study of the chemistry of life at the cellular level, including cell physiology, photosynthesis and respiration, cell reproduction and genetics. It also focuses on DNA and genetic engineering. Coursework is engaged through lectures and lab-based activities.

Environmental Science

Grade 10

1 Credit

The purpose of this course is for students to study ecosystems, energy sources, the climate, and the impact of society on the environment. Students will examine the social and personal responsibilities of individuals in response to the environment by applying scientific inquiry and the methods of science (observations, hypotheses, and experiments) to environmental concepts. Students will research and present information on new scientific discoveries in demonstrating the relationship between applied scientific method, the use of technology, and their impact on the environment.

Chemistry

Grade 11

1 Credit

The purpose of this course is to prepare students for the first year of collegiate chemistry. Students will be introduced to the systematic and scientific study of the physical and

chemical properties of matter and the energy changes associated with these properties. This course will emphasize problem-solving skills associated with the main principles important to understanding chemistry. Laboratory investigations and reports using the scientific method are required to better understand the concepts of chemistry.

AP Biology

Grades 10,11,12

1 Credit

The purpose of this College Board Advanced Placement Biology course is to engage students in collegiate level coursework and encourage the development of a broad and sophisticated understanding of Biology, and the skills necessary to succeed on the AP Biology exam. Topics of study include biochemistry, cell structure and function, genetics, molecular basis of inheritance, DNA, gene regulation and expression, evolution, classification, animals, and ecology. Furthermore, the above topics are integrated throughout the course using the four key foci: evolution, energetics, information storage and transmission, and system interactions. This is a laboratory course in which students are expected to use collected data to solve biological problems. Students enrolled in this course are required to take the AP Biology exam at the end of the academic year. Prerequisites include successful completion of Honors Biology, the recommendation of the student's most recent science teacher and department chair approval.

AP Chemistry

Grades 11 - 12

1 Credit

The purpose of this College Board Advanced Placement Chemistry course is to engage students in collegiate level coursework and encourage the development of a broad and sophisticated understanding of Chemistry, and the skills necessary to succeed on the AP Chemistry exam. Coursework involves a depth of understanding of fundamentals and a reasonable competence in dealing with chemistry problems with an emphasis on chemical calculations and the mathematical formulation of principles, and on intensive hands-on laboratory work done by students. Lab reports and problem solving using dimensional analysis are stressed throughout the program. Topics of study include chemical elements, chemical and physical properties of materials, changes in matter, rates of chemical reactions, laws of thermodynamics, chemical bonds, and intermolecular attraction. Students enrolled in this course are required to take the AP Chemistry exam at the end of the academic year. Prerequisites include the successful completion of Biology and Chemistry Honors, Algebra II/Trig, the recommendation of the student's most recent science teacher, and department chair approval.

Physics

Grades 11 – 12

1 Credit

The purpose of this course is to expand the critical thinking and reasoning skills of students through a focused study of the conceptual foundations of physics. Employing both previously acquired and new mathematics skills in problem solving, students will engage in a comprehensive introduction to classical mechanics: motion, forces, energy, and the laws that govern them. As time permits, topics of electricity, optics, sound, and heat may also be introduced. Algebra, trigonometry, data manipulation, graphing, and the use of graphing calculators is routine. Demonstrations, hands-on activities, and projects are incorporated to reinforce the theory.

AP Physics 1

Grades 11 – 12

1 Credit

AP Physics 1 is an algebra-based, introductory college-level physics course. In this class, students will develop a deep understanding of foundational principles of physics by applying these principles to complex physical situations that combine multiple aspects of physics rather than present concepts in isolation; discuss, confer, and debate with classmates to explain a physical phenomenon investigated in class; design and conduct inquiry-based laboratory investigations to solve problems through first-hand observations, data collection, analysis and interpretation. The topics include kinematics, dynamics, circular motion and gravitation, energy, momentum, simple harmonic motion, torque, and rotational motion. Students should have completed Algebra II and be concurrently taking Honors Pre-Calculus or higher level. Prerequisites include the recommendation of the student's most recent science teacher and department chair approval.

Anatomy & Physiology

Grades 11 – 12

1 Credit

The goal of this course is to provide students with a foundational understanding of the anatomy and function of the individual human body and its systems. A brief review of critical biology and chemistry topics serves as the beginning reference point from which this course explores individual body systems. Topics of study include: an in-depth discussion of the anatomy and physiology of body systems such as integumentary (skin), skeletal, muscle, respiratory, cardiovascular, and reproductive. A dissection of a mammal will be used to illustrate the structure and function of human systems.

Forensics Science

Grades 11-12

0.5 credit

The goal of this course is to introduce the students to the tools, procedures, and benefits of Forensics Science. Forensic Science is an interdisciplinary academic area of study that draws from many disciplines including Biology, Biotechnology, Chemistry, Computer Science, and Criminal Justice. Students will be exposed to a variety of forensic case studies and interactive scenarios. Topics that will be covered include Forensic Anthropology, DNA Technologies, Autopsy Coverage, Crime Scene Investigation, Evidence Collection, Forensic Botany, Fingerprinting, Cast and Impressions, Blood and Blood Spatter, Tool Marks, and Firearms and Ballistics. Due to the nature of this content, some of the material presented could be considered violent or graphic.

Biotechnology

Grade 12

0.5 Credit

The purpose of this course is to develop student understanding of modern biotechnology concepts through the applied knowledge gained from biology and chemistry. Employing a comprehensive approach to scientific method, students engage a variety of industry specific experiments and critical thinking skill sets. Topics of study include genetic engineering, gene splicing, stem cells, cloning, genetic diseases, DNA, and the use of biotechnology in the environment and in industry. Prerequisites include successful completion of Biology and Chemistry, and the recommendation of the student's most recent science teacher.

WORLD LANGUAGES DEPARTMENT**French I**

1 Credit

In French I, students begin to build proficiency in listening, speaking, reading, and writing in the target language, as they develop the necessary skills to become successful language learners. The students acquire cultural and geographical information about the Francophone regions of the world. Vocabulary is introduced thematically and reinforced

through daily practice. Students learn basic grammar and common expressions to create short dialogues and conversations. The students learn through various methodologies, including lecture, use of technology, projects, cooperative group activities and interactive practice, emphasizing activities involving oral and written communication.

French II

1 Credit

In French II, students continue to develop their proficiency in listening, speaking, reading, and writing, as they further develop the necessary skills to become successful language learners. Students continue to acquire cultural and geographical information pertaining to the Francophone regions of the world, and they begin to compare cultural differences to enhance an appreciation of cultural diversity. The students continue to build their vocabulary resources through thematic presentation and daily practice. The study of grammar becomes more in depth as students are exposed to verb tenses. The students strive to increase fluency and refine their oral skills through different methodologies, both oral and written. Compositions, presentations, and paired activities take on greater length and allow for more self-expression. Successful completion of French I with a minimum C average is a prerequisite of this class.

French III

1 Credit

In French III, students begin to transition from the novice to the intermediate level of language acquisition. Students continue to hone their skills in listening, speaking, reading, and writing, with an increased focus on developing more culturally authentic communicative and written skills. Prior grammatical structures, vocabulary themes, and idiomatic expressions are reviewed and amplified. Compound verb tenses and moods are introduced. Students develop reading and writing skills through an introduction to French literature, using adapted versions of classic texts and primary sources. Students engage in paired activities, group projects, and class presentations to practice vocabulary and grammatical concepts, and classroom discussions to focus their interpretation of the literary works read. Successful completion of French II with a minimum C average is a prerequisite of this class.

French IV

1 Credit

In French IV, students expand upon previously studied grammar concepts in preparation for the study of advanced structures, idiomatic expressions, and usage. The course enhances the students' oral proficiency and understanding of nuances in meaning. Students analyze and discuss novels and select reading material to promote critical thinking skills and develop an appreciation of literature. By completing projects focused on aspects of

French culture and civilization, the students develop an appreciation of diversity and global awareness. Successful completion of French III with a minimum C average and department chair approval are prerequisites of this class.

Spanish I

1 Credit

In Spanish I, students begin to build proficiency in listening, speaking, reading, and writing in the target language, as they develop the necessary skills to become successful language learners. The students acquire cultural and geographical information pertaining to those regions of the world where Spanish is spoken. Vocabulary is introduced thematically and reinforced through daily practice. Students learn basic grammar and common expressions to create short dialogues and conversations. The students learn through various methodologies, including lecture, use of technology, projects, cooperative group activities and interactive practice, emphasizing activities involving oral and written communication.

Spanish II

1 Credit

In Spanish II, students continue to develop their proficiency in listening, speaking, reading, and writing, as they further develop the necessary skills to become successful language learners. Students continue to acquire cultural and geographical information pertaining to those regions of the world where Spanish is used. The students continue to build their vocabulary resources through thematic presentation and daily practice. The study of grammar becomes more in depth as students are exposed to verb tenses. The students strive to increase fluency and refine their oral skills through different methods, both oral and written. Compositions, presentations, and paired activities take on greater length and allow for more self-expression. Successful completion of Spanish I is a prerequisite of this class.

Spanish III

1 Credit

In Spanish III, students begin to transition from the novice to the intermediate level of language acquisition. Students will continue to hone their skills in listening, speaking, reading, and writing, with an increased focus on developing more culturally authentic communicative and written skills. The students continue to build their vocabulary resources with an effort towards acquiring the ability to describe and discuss abstract topics such as art and literature. The study of grammar moves from the realm of the indicative mood to that of the imperative and subjunctive moods. Through their study of authentic texts and resources, students develop oral and written responses of increased length and complexity. Interaction in the classroom is in the target language. Prerequisites include successful completion of Spanish II, teacher recommendation, and department chair approval.

Spanish IV

1 Credit

In Spanish IV, students explore literary, historical, and social themes through the study of a variety of authentic texts, print media, Internet resources, film clips, and music. Students continue to hone their language skills, with an emphasis on the development of critical reading, analytical and auditory skills, and cultural perspectives. Students are introduced to persuasive writing. Oral presentations, essays, and class discussion foster the acquisition of vocabulary and increased proficiency, as well as refine the students' use of advanced grammar structures. Prerequisites include successful completion of Spanish III, teacher recommendation, and department chair approval.

Spanish V

1 Credit

Spanish V is a course for those students who have successfully completed Spanish IV, and who seek to continue to explore current world themes through a variety of sources to develop their language skills, but who do not choose to take the Advanced Placement Spanish Language and Culture Exam. Students are exposed to a wide variety of materials to help them to compare and to contrast their understanding of Hispanic culture with their own culture. Students increase their proficiency and hone their grammar skills through oral presentations, discussions, and essays of diverse types. Prerequisites include successful completion of Spanish IV, teacher recommendation, and department chair approval.

AP Spanish Language & Culture

1 Credit

The goal of this College Board Advanced Placement Spanish Language & Culture course is to engage students in collegiate level coursework and encourage the development of a broad and sophisticated understanding of Spanish, and the skills necessary to succeed on the AP Spanish Language & Culture exam. The AP Spanish Language and Culture course is equivalent to an intermediate level college course in advanced Spanish composition and conversation. This course is conducted entirely in Spanish. The students cultivate their understanding of Spanish language and culture, by applying interpersonal, interpretive, and presentational modes of communication in real-life situations as they explore concepts related to family and communities, personal and public identities, beauty and aesthetics, science and technology, and global challenges. A secondary goal is to increase cultural awareness of Spanish-speaking communities both in the US and abroad, by means of the study of current events and global issues. Students enrolled in this course are required to take the AP Spanish Language & Culture exam at the end of the academic year. Admission to this elective College Board AP course requires the recommendation of the student's Spanish IV teacher and the approval of the department chair.

Fine Arts Department

Studio Art (Junior High)

1 Quarter

The goal of this course is to provide the beginner student with an introduction to the standard elements of studio art. Technique development is emphasized through drawing, painting, and some mixed media. Students will create a series of artwork with a focus on techniques to create space in a composition overlapping line, understanding color relationships, gradation of tone, and rendering objects larger in perspective.

Studio Art I

.5 Credit

This course advances student artistic techniques through complex applications. Composition renderings incorporating linework, tone, color, and linear perspective, will be explored. Project based assessments will include still-life, portrait, and landscape in developing student content and skill set.

Studio Art II

1 Credit

Building upon the curricular elements of Studio Art I, this course continues student development of the methodologies of drawing and painting techniques. The course expands student comprehension through a focus on illustration to communicate with an audience. Composition projects will include direct observation, an introduction to graphic design, storyboards, conceptual abstraction, and some 3D projects. Prerequisites include successful completion of Studio Art I, teacher recommendation, and department chair approval.

Studio Art III

1 Credit

The goal of this course is to integrate the previously studied curricular objectives of Studio Art I & II with the standards of art criticism and critical thinking skills in two and three-dimensional design. Studio activities will include drawing, painting, sculpture, two, and three-dimensional designs as well as art history. Special attention is given to developing a portfolio for students interested in art as a career. Prerequisites include successful completion of Studio Art II, teacher recommendation, and department chair approval.

Studio Art IV

1 Credit

The goal of this course is to integrate the previously studied curricular objectives of Studio Art I, II, and III with the standards of developing a scholarship-worthy portfolio. Students will conduct intensive research of art history and maintain superior technical skills in drawing and working with art media. Students are expected to create with individuality, originality, and express conceptual development. Categories that can be explored include still lifes, landscapes, figure, digital and conceptual, and all will focus on personal aspects of your artistic style.

AP Studio Art

1 Credit

This College Board Advanced Placement course is designed to successfully prepare students for the AP Studio Art exam through collegiate level coursework. Students will create a portfolio of work to demonstrate inquiry through art and design and development of materials, processes, and ideas over a year. Portfolios include works of art and design, process documentation, and written information about the work presented. In May, students submit portfolios for evaluation based on specific criteria, which include skillful synthesis of materials, processes, and ideas and sustained investigation through practice, experimentation, and revision, guided by questions. Students may choose to submit any or all of the AP Portfolio Exams. Primary emphasis is placed on portfolio production as articulated by AP standards. The portfolio is one that would serve as a formal submission for admission to a Fine Arts program at a higher educational institution. All students enrolled in the course must take at least one of the AP Studio Art exams at the end of the school year. Prerequisites include the recommendation of the Studio Art III teacher and department chair approval.

Theatre

Grades 7 – 8

1 Quarter

The goal of this junior-high, semester course offering is to familiarize students with the elements of theatre. With an active, fun, and hands-on approach, students will learn theatre terms and participate in a variety of acting exercises, including those meant to develop energy, focus, and improvisational skills. Students will write original scenes and act in established scenes for in-class performances.

Acting & Stagecraft

Grades 9 – 12

0.5 Credit

The purpose of this semester course offering is to introduce the high school student to the formal elements of theatre arts and stagecraft. Students will learn basic theatre principles in stage movement, acting techniques, character development, voice, diction, pantomime, and improvisation while practicing techniques to overcome stage-fright and develop self-confidence. Students will write and perform original scenes as well as study the works of major playwrights.

Playwriting

Grades 11 – 12

0.5 Credit

The purpose of this interdisciplinary semester course is to introduce students to the methods of playwriting for theatrical production. Students examine processes that include concept, research, development, dramatic form structure, and character development. The course is interdisciplinary in nature because it draws upon the essential elements of creative writing and narrative structures as explored in the English curriculum. Students will participate in theatre exercises in search of writing material. Students read and analyze several plays from a production perspective. Students study the method for creating a rough draft through final draft process, casting, and staged readings leading to informal play and possible formal production.

Junior High Music

Grades 7 – 8

1 Quarter

In this course, students develop a greater understanding of music through listening, composing, and playing musical instruments. Students will be introduced to elements of rhythm and musical notation and will compose their own rhythmic piece. Concepts of melody, harmony, and music theory will be introduced through electric keyboards, ukuleles, and other classroom instruments. Music of various styles and time periods will be featured for listening and performing.

High School Band (I, II, III, IV)

Grades 9 – 12

1 Credit

The Saint Paul band is an ensemble of students with varying levels of playing experience. Previous playing experience and instrument proficiency is recommended. Students will

study the fundamentals of instrumental performance in an ensemble setting. Students will perform music from myriad time periods and genres in developing important ensemble performance practices. While private lessons are not required, they are strongly encouraged for more in-depth individual instrument study, particularly for students who are beginners. The ensemble will be showcased in at least two performances during the school year. Students will be expected to provide an instrument or rent an instrument, and a rental informational session will be held at the beginning of the school year.

Applied Music Theory & Musicianship (Piano / Keyboard)

Grades 9 – 12

0.5 Credit

This semester course serves as an introduction to music theory through analyzing performed and notated music. This course requires a significant interest in learning music theory as it relates to the piano / keyboard. Following an integrated and cumulative process, students will explore concepts like pitch, rhythm, form, tuning, single line melody, chord accompaniment, and musical design as applied through piano / keyboard musicianship. Each week progressive, step-by-step assignments will include tips on technique, a melodic performance piece and a popular tune to exercise the new chords learned. Focus will be given to music history, music appreciation, reading and interpreting basic notation, solfeggio, and piano / keyboard skills.

Music History: From Bach to Rock

Grades 11-12

0.5 credit

This semester course is designed to cover a concise history of Western Music, beginning with tonal music as developed and perfected by J. S. Bach and moving into the world cultural influences of 20th century music and jazz. Periods of history will be examined through the lens of music including the Renaissance, Baroque Era, the Age of Enlightenment, Industrial Revolution, Classical Era, Opulent Era/Gilded Age, Neo-classicism, Impressionism, Nationalism/Isolationism, the World Wars, and the Cold War. These essential questions will also be addressed in the course: How was the political culture of a period reflected in the music? Was this music a catalyst, or simply a byproduct of the era? As colonialism spread, borders changed, and identities shifted, how was the music of a culture affected? What results of these political, socio-economic, and geographic changes are heard in the music of today?

AP Music Theory

Grades 11 – 12

1 Credit

The goal of this College Board Advanced Placement course is to engage students in music theory collegiate coursework in preparing for the AP Music Theory exam. This course is designed for advanced instrumental or choral students learning the fundamentals of arranging, composition, and advanced music theory. Topics of study include musicianship, theory, and musical materials and procedures. Musicianship skills, including dictation and listening skills, sight-singing, and harmony, are an important part of the course. Through the course, students develop the ability to recognize, understand, and describe basic materials and processes of tonal music that are heard or presented in a score. Development of aural (listening) skills is a primary objective. Performance is also part of the curriculum through the practice of sight-singing. Students learn basic concepts and terminology by listening to and performing a wide variety of music. Students enrolled in this course must take the AP Music Theory exam at the end of the academic year. Admission to this elective College Board AP course requires the recommendation of the student's most recent music teacher and department chair approval.

High School Chorus (I, II, III, IV)

1 Credit

All students are welcome and encouraged to learn to sing. Students will learn the fundamentals of vocal tone production and musical development. Topics of study include proper breathing, vocal technique, music notation, rhythm, basic piano skills, and solfeggio. Students will develop skills related to performing together as an ensemble and as an individual. Ensemble will be showcased, and students are required to perform in at least two performances during the school year (date TBA).

COMPUTER SCIENCE & TECHNOLOGY DEPARTMENT**Digital Literacy & Creative Design**

Grades 7 – 8

1 Quarter

This course provides Grade 7 and 8 students with an introductory overview of the powerful potential of the personal computer (PC). Students will benefit through hands-on exercises in general computer use, Microsoft Office applications and Beginner Programming applications. A variety of interactive tools and interesting projects will be highlighted utilizing MS/Word, Excel, PowerPoint, MIT/Scratch, Alice programming and

more. Successful completion of this course will enable greater confidence and general understanding in student-centered computer literacy.

Applied Methods in Computer Coding

Grades 9

0.5 Credit

This semester course is designed to develop students' skills in alignment with the Massachusetts Curriculum Framework for Information Technology and Computer Science. Students will be introduced to the core concepts of computer coding and logical problem solving. Using a variety of computer programming tools, students will develop skills in defining problems, creating test cases, preparing resolutions, and verifying results through additional analysis. Students will become familiar with the basic constructs of computer programming: Data Types, Assignment Variables, Decision Structures, Iteration & Looping, Arrays, Lists and Random Functions. Concepts are cumulatively built upon, incorporated by hands-on activities. Students will use a variety of programming languages including but not limited to: BASIC, SCRATCH, TNG- LOGO, ALICE, and PYTHON.

Business Office Applications

Grades 9 – 12

0.5 Credit

This interdisciplinary course is designed to develop students' skills in alignment with the Massachusetts Curriculum Framework for Business Technology. The course is interdisciplinary in nature because it employs technical and stylized writing forms from English and utilizes formula constructs and problem-solving skills as explored in Mathematics. Students will be introduced to standard electronic business communication tools: word processing, spreadsheet, presentation media, and internet applications. These tools will be applied in a variety of interesting methodologies to ensure students receive multiple opportunities to build confidence and competency in electronic business communication. Topics to be covered may include Cover Letter/ Resume, Business Advertising, Web Page development and Oral Presentation, Financial Sales Reporting, Stock Market and Company Analysis, Personal Budgeting.

Visual Studio: Concepts in Game Programming & Design

Grades 10 – 12

0.5 Credit

This interdisciplinary semester course is designed to develop students' skills in alignment with the Massachusetts Curriculum Framework for Information Technology and Computer Science. Students will explore and develop computer applications using a GUI programming environment. The course is interdisciplinary in nature because it employs algebraic processes and mathematical problem solving. Through implementation of

elements from MICROSOFT VISUAL STUDIO, students will build interesting applications in a Windows based environment. Content will include Computer Operating Systems/Networking Overview, Visual Basic Programming Techniques and Computer Ethics. Upon completion, the student will be expected to understand standard programming concepts such as: Object attributes & behaviors, Data Types, Assignment Variables, Decision Structures, Iteration & Looping, Arrays, Lists and Random Functions. This course requires the completion of a “computer game” project. A prerequisite of this course is successful completion of Applied Methods of Computer Coding or Algebra I.

Java Programming

Grades 10 – 12

0.5 Credit

This semester course will offer students who are interested in computer programming an opportunity to learn Java, the popular Object-Oriented language. Students will learn the basic constructs of the language and use it to solve a variety of programming problems. Using the Java programming language, students will explore and employ the details of data encapsulation, class and method constructs, standard programming algorithms, programming methodology and syntax structures at an introductory level. Most importantly, it is hoped that each student receives a solid foundation in logical thinking and problem solving that will serve them well as they begin their post high school journey in any discipline they choose. A prerequisite of this course is successful completion of Applied Methods of Computer Coding or Algebra I.

Robotics I - NXT

Grades 10 – 12

0.5 Credit

This interdisciplinary semester course is offered to students seeking to develop their knowledge and understanding of computer programming as it relates to movement in robotics. This course is interdisciplinary as core concepts and learning objectives build upon a S.T.E.M. standards-based curriculum. Students will learn basic computer programming logical constructs and terminology, and then employ these principles to develop programmed instructions for the “Lego Mindstorm NXT Robot.” All project-based work will be performed in a “hands-on” computer lab environment. This course will provide endless problem-solving opportunities for the creative and disciplined student. This course is specifically designed for students most interested in further study in the computer or robotic sciences. A prerequisite of this course is successful completion of Applied Methods of Computer Coding or Algebra I.

Introduction to Web Design

Grades 10 – 12
0.5 Credit

This semester course is designed to develop students' skills in alignment with the Massachusetts Curriculum Framework for Information Technology and Computer Science. Students will learn to code interesting web pages with HTML, CSS, and JAVASCRIPT. Several interesting Projects will be undertaken as students begin to uncover the mystery behind Web Design. Topics to be covered include Basic tag design, Drop down Menu Systems, Multimedia integration, Interactive and Animation implementations. Upon completion, the student will be expected to design several fully functioning Web Sites, including a student portfolio which will be used in a “mock interview” oral presentation.

Computer Aided Design I

Grades 10 – 12
0.5 Credit

This semester course is offered to students seeking to develop their understanding and skills in Computer Aided Design for Engineering. The students will be using professional CAD software in a hands-on lab following a standards-based curriculum. Students will become familiar with the full design process, performing analysis, creating, and designing 3D parts and assemblies for use in a manufacturing industrial environment. Through a project-based approach, students will gain valuable experience working both as individuals and in team environments. The course will require consistent use and continuous development of critical and strategic thinking skills to solve real world problems. This course is specifically designed for students intending to further their study in the engineering sciences. Successful completion of Geometry is a prerequisite of this course.

AP Computer Science

Grades 11 – 12
1 Credit

The purpose of this College Board Advanced Placement Computer Science course is to engage students in collegiate level coursework and equip students with the necessary content and skills needed to succeed on the AP Computer Science (A) exam. For students interested in pursuing opportunities in computer science or related disciplines, this course makes for a solid foundation in object-oriented programming and logical problem-solving techniques. Through an organized presentation that includes object-oriented concepts, standard logic algorithms, and hands-on programming projects, each student strengthens their ability to conceptualize and solve problems through the implementation of effective solutions. Using the Java programming language, students explore and employ the details of data encapsulation, class and method constructs, standard programming algorithms, programming methodology and syntax structures. Students enrolled in this course must take the AP Computer Science (A) exam at the end of the academic year. Successful completion of STEM-related coursework and the department chair's recommendation are course prerequisites.