ST. THOMAS AQUINAS
HIGH SCHOOL

PROGRAM OF STUDIES
2023-2024

THEOLOGY

Intro to Catholicism CP, Semester
This course is an introduction to Catholic Christianity for freshmen, providing students with a basic understanding of Catholic history, theology, beliefs, and practices. Students will explore how God has revealed God's self to humanity and how we have responded to the love of God in our morality and spirituality. Students will learn about the Catholic faith, the person of Jesus Christ, the Church, Tradition, Saints, and a variety of doctrine and dogma, including the Incarnation, the Resurrection, and the Trinity.

Morality CP, Semester
This course will introduce students to the basic moral principles for living a Christian life. How do we recognize what the "right thing" to do is? What obstacles prevent us from wanting to do what is right? Among the important themes are human behavior, grace, sin, formation of conscience, and responsible decision-making. Students will learn about a variety of ethical approaches, while exploring the concepts of human dignity, rights, justice, common good, and virtue. Students will also learn about the moral foundation provided by the Ten Commandments while exploring how our faith life is strengthened by the Seven Sacraments.

Scripture I CP, Semester
In this course, students are introduced to the Holy Bible. During the first semester the stories of the Old Testament, or Hebrew Scriptures, are examined as sacred literature and with regard to their historical context. The notions of inspiration, revelation, and covenant are essential to understanding these texts as sacred literature. Students will study the stories of Creation, Abraham, Exodus, Monarchy, Exile, and Prophecy. The themes of God's Call, our response to that Call, and personal Transformation will be applied both to the people and events of the Old Testament as well as to our own lives.

Scripture II CP, Semester
During the second semester our focus is on the New Testament. Emphasis is placed on the person of Jesus Christ, his birth, his life, his preaching, his healing, and the significance of his death and resurrection. The Gospels of Matthew, Mark, Luke, and John, the Letters of Paul, and the growth of the Early Church (Acts) will all be examined, both as sacred texts and with regard to their historical context. The Christian call to Transformation takes center stage in this semester, both as it applies to peoples and to our own individual lives.

Social Justice CP, Semester
This course develops an awareness of Catholic social teaching and tradition, including Scripture, Papal Encyclicals and the Pastoral Letters of the U.S. Catholic Bishops. It also addresses a variety of controversial issues which challenge our society. These include poverty, world hunger, prejudice, racism, war and peacemaking, abortion, and capital punishment. The course provides a better understanding of both the facts regarding these issues and the relevant Christian principles and values. It examines the role of debate and controversy in a democratic society and the importance of analyzing and understanding the reasons for each position. Students are challenged to have well informed consciences and commitments on moral issues. The course focuses on questions such as "What difference can an individual make?" and "What is the appropriate role of government in dealing with social issues?"

Christianity and Ethics CP, Semester
This course examines the foundations of Christian moral thinking. Most of us simply take for granted that there is something called "right and wrong," but do we really know where it comes from and what it is? Some say morality is merely a matter of what "I" or "we" say it is. Or is morality something "real" and concrete? Is morality something we can discuss intelligently and with objectivity? Could we even defend it if we had to? Using readings in moral philosophy taken from thinkers like Plato, Aristotle, Bentham, and Kant, and guided by the Gospel teachings of Jesus Christ, we will explore the objective nature of morality.

World Religions CP, Semester
This course introduces students to some of the world's major religious traditions. This course will include the study of the Western monotheistic religion of Islam and the Eastern religious tradition of Hinduism and Buddhism. In each case students will examine the historical development of their traditions, basic beliefs, and religious practices, including forms of worship and prayer, sacred stories, and scriptures. Student research and presentations will cover a variety of other religious traditions such as Confucianism, Jainism, Shinto, Sikhism, Taoism, and Zoroastrianism.

Christian Life CP, Semester
This seminar style course can be seen as a capstone to your St. Thomas' experience. Topics will include faith and spirituality, the role of personality, the need for community as social beings, the desire to know and understand our vocation, and the joy of using our strengths and talents to serve others. Through student-led discussions we will reflect on who we are and the influence of faith in our daily lives. We consider visual arts, music, and film as expressions of human meaning and value. This course requires verbal participation and engagement.

Communion of Saints CP, Semester
Saints are regular people who boldly and courageously lived their lives in faith. Regular people from all walks of life from shepherds and farmers to doctors, from soldiers to religious and everything in between. They can be viewed as role models of service and love. This seminar-style course will combine our school's tradition of faith and reason to explore the lives of saints and the ways in which they left their mark on the world. Through reading the writings of saints and scholars, participating in philosophical and spiritual discussion, reflecting on art and media, students will discover the inspiring lives of the saints and mystics that continue to play an important role in the lives of Christians throughout the world.

ENGLISH

The goal of the English and Fine Arts Department is to properly place students in the course best suited to meet their needs, ensuring academic growth and success, while challenging all students appropriately. Recommendation that a student take Honors or AP English is based on class performance during the prior year as well as on an assessment tool administered in the spring semester; the recommendation is made by the student's current English teacher.

A student taking the Honors level English class should be able to read at a steady pace, with a strong level of comprehension; have the motivation and self-discipline to complete reading independently and on time; be able to understand complex reading beyond the literal level; be able to understand key ideas and to articulate them in writing and speaking; be able to write with minimal errors in sentence structure, spelling and usage and with an appropriate level of sophistication; and be interested and engaged in class discussion. AP students should have exceptional ability in each of these areas. Ideally, Honors and AP students are independent thinkers, self-motivated learners and genuinely curious individuals.

English 9 CP, Full Year
Students in English 9 CP begin the year with a focus on writing skills, laying the foundation for writing strong paragraphs and essays. The basics of writing mechanics and usage are woven into the course throughout the year, as is vocabulary study of Greek word roots. Students work on reading stamina and comprehension, as well as critical thinking and discussion skills, through study of several classic works and an ongoing program of choice reading. The foundations of further study of literature are set in this course, which includes the four major genres and basic literary terms. Students read four to six major works throughout the year, along with material from the textbook and classical mythology.

Note: *Placement is determined by placement exam and English faculty review.*

English 9 Honors, Full Year
Students in English 9 Honors begin the year with a focus on writing skills, laying the foundation for writing strong paragraphs and essays. The basics of writing mechanics, grammar, and usage are woven into the course throughout the year, as is vocabulary study of Greek word roots. Students in the Honors level are expected to have strong comprehension skills, so the pacing and depth of this course are more advanced. As students work through a number of classic works, they practice critical thinking, making inferences, generating discussion and presenting ideas in both speaking and writing. The foundations of further study of literature are set in this course, which includes the four major genres of literature and basic literary terms. Students read five to eight major works throughout the year, along with material from the textbook and classical mythology.

Note: *Placement is determined by placement exam and English faculty review.*

English 10 CP, Full Year
Students in the sophomore year continue to hone their reading and writing skills through a study of works from British Literature. As they study works from medieval times to the modern era, students encounter a wide variety of poetry, fiction and drama. Writing skills and analytical thinking skills are developed further through a number of assignments related to the literature studied, with particular emphasis on the development and defense of a thesis in essay form. Vocabulary study focuses on the Latin roots found in English. Four to six major works will be required as outside readings in addition to readings in the textbook.

English 10 Honors, Full Year

Sophomores at the Honors level continue to sharpen their reading, writing and critical thinking skills as they encounter a chronological study of British Literature, with a focus on the literary periods from medieval times through the modern era. Students read and study a wide variety of poetry, drama, and fiction, learning to recognize the elements of each literary period, and the ideas and cultures which informed them. At the Honors level, students will also begin to explore ideas about literature through critical reading and analysis. Writing skills and analytical thinking skills are developed further through a number of assignments related to the literature studied, with particular emphasis placed on the development and defense of a thesis in essay form. Vocabulary study will focus on the Latin roots found in English. Six to eight novels and plays will be required in addition to readings in the textbook.

Note: *Placement in an honors-level course is determined by the teacher of the previous year's English course.*

English 11 - American Literature CP, Full Year

Juniors pursue a study of American Literature from its foundations in the seventeenth century through the twenty-first century. American Literature is correlated to U.S. History as much as possible, so that students can discover the many connections between them, and recognize the larger ideas that have shaped our culture, and continue to impact our place in the world. The mechanics of a significant research paper are taught at this level and essays which require critical thinking and analysis related to the readings are required throughout the year. *All juniors are required to write a major research paper in the fall semester, and to present a speech on a topic related to American history and culture in the spring. Four to six major works will be required as outside readings in addition to readings in the textbook.*

English 11 - American Literature Honors, Full Year

At the Honors level, juniors pursue a study of American Literature from its roots in Puritan New England through the twenty first century. Emphasis is placed on relating the literature studied to the US History course students are taking at the same time, and students are encouraged to seek connections between the two courses. Literary works are studied in their original context, in order to trace the development of ideas, art and culture that have shaped America's place in the world. The development of literary styles from romanticism to modernism is examined in relation to the American experience. The mechanics of a significant research paper are taught at this level. *All juniors are required to write a major research paper in the fall semester, and to present a speech on a topic related to American history and culture in the spring. Six to eight major works will be required in addition to readings in the textbook.*

Note: *Placement in an honors-level course is determined by the teacher of the previous year's English course.*

AP English Language and Composition, Full Year

This AP English Language course is designed to help exceptional language arts students become skilled readers of prose written in a variety of periods, disciplines and rhetorical contexts, and to become skilled writers who can compose for a variety of purposes. The skills will be developed through extensive study of primarily American literature of various genres. As stated on College Board website, this course "requires students to develop evidence-based analytic and argumentative essays that proceed through several stages or drafts. Students evaluate, synthesize, and cite research to support their arguments. Additionally, students read and analyze the rhetorical elements and their effects in non-fiction texts, including graphic images as forms of text, from many disciplines and historical periods." All students are required to take the AP exam in May. *This course fulfills the requirement for English 11. All juniors are required to write a major research paper in the fall semester, and to present a speech on a topic related to American history and culture in the spring. Six to eight major works will be required as outside readings in addition to readings in the textbook.*

Note: *Students are required to purchase a number of additional books for this class.*

Prerequisite: *Placement in an AP-level course is determined by the teacher of the previous year's English course.*

Note: Seniors are required to either take the full-year AP English Literature and Composition course, or to take Senior English: The Search for Self in the fall semester and one of several English electives in the spring semester. In the first semester, all Senior English courses and AP English 12 will include a personal narrative writing component to help with college application essays. In the second semester, all Senior Elective courses culminate in the Senior Presentation.

English 12: The Search for Self CP, Semester 1

Who will I become and how will I get there? Am I in control of my own destiny? How do I know what's real? What's true? What's right? Every human being wonders about these questions, especially at times of transition. The Senior English course focuses on the themes of identity, self-discovery and self-definition. Through study of a variety of literary works, students explore the individual in relation to the self, to the community and to God. Literary works taken from the scope of world literature include *Oedipus Rex*, *Hamlet*, and an assortment of more modern works. Writings include the personal narrative as well as literary analysis. Students are expected to be knowledgeable about and responsible for accurate research documentation. *Four to six major works will be required in addition to shorter assigned readings.*

Note: *Each student must achieve a passing grade for the semester in order to receive credit. Graduation requires that the student pass both semesters of Senior English. All seniors, except those enrolled in Advanced Placement English, must take Senior English at either the H or CP level.*

English 12: The Search for Self Honors, Semester 1

Who will I become and how will I get there? Am I in control of my own destiny? How do I know what's real? What's true? What's right? Every human being wonders about these questions, especially at times of transition. The Senior English Honors course focuses on the themes of identity, self-discovery and self-definition. Through a variety of literary works, students explore the individual in relation to the self, to the community and to God. Literary works are taken from the scope of world literature, including an assortment of modern works. Students will be expected to draw on their knowledge of literary periods and cultures and to explore critical thinking about the literary works studied. In writing, the emphasis will be on the personal narrative, and literary analysis. Students are expected to be knowledgeable about and responsible for accurate research documentation. Reading and discussing four to six major works (novels, plays, and short story collections) are required. Additional, smaller works (poems, essays) will also be used.

Note: *Each student must achieve a passing grade for the semester in order to receive credit. Graduation requires that the student pass both semesters of Senior English. All seniors, except those enrolled in Advanced Placement English, must take Senior English at either the H or CP level. Placement in an honors-level course is determined by the teacher of the previous year's English course.*

AP English Literature and Composition, Full Year

The AP English class for highly motivated seniors focuses on literary analysis through a careful study of each of the major genres of literature: fiction, poetry, and drama. Students read a large number of challenging works, engage in literary analysis and write extensively. The course is intended to provide students with a college level literature course, and to prepare them for the A.P. examination in May. Students often complete work independently, and lead team discussions; willingness to participate and actively engage with the text is essential for students in this class. This course will fulfill the requirement for a full credit of English in the senior year. Students are required to take the AP Exam in May.

Note: *Students must purchase a college level anthology and a number of supplemental novels.*

Prerequisite: *English 11 Honors or AP Language and Composition. Placement in an AP-level course is determined by the teacher of the previous year's English course.*

Holocaust Literature: Resistance and Survival CP, Semester 2

With each story shared by survivors of the Holocaust, we carry their legacy forward. This course is an opportunity for seniors to revisit this topic as upperclassmen, specifically to focus on resistance movements and acts of rebellion in World War II that saved Jewish lives. Through memoir and historical fiction, we will explore the resilience of humanity, bear witness to their struggle for survival, and say "never again" to genocide. In this course, we will explore the works of authors such as Anthony Doerr and Jim Shepard as well as memoirs from survivors.

Note: *This course fulfills the English requirement for the second semester of senior year. This course culminates in the Senior Presentation.*

Books That Matter! CP, Semester 2

And the literary award goes to . . . . The National Book Awards (American literature), Nobel Prize, Newbery Medal (children's book), Printz Award (young adult), Edgar Award (mystery), Hugo Award & Nebula Award (science fiction and fantasy), Bram Stoker Award (horror), Women's Prize for Fiction, Pulitzer Prize (American fiction), Booker Prize (British or Irish fiction). These are just a handful of awards given to the best novels each year in a range of categories. In this course, we will explore a selection of award winning books from the past decade. What makes these works award winning? What characteristics from each category are praised? What larger issues and themes are explored, and what does this show about the current times? Class discussion is a critical part of this course, as students will help lead activities in whole group discussions and in book clubs. Students will further their writing and research skills in this course, culminating in a Senior Presentation.

Note: *This course fulfills the English requirement for the second semester of senior year. This course culminates in the Senior Presentation.*

Diverse Voices CP, Semester 2

This course will focus on the literature of American authors of color: Black, Latinx, Indigenous, Asian, and other voices of the 20th and 21st centuries. In particular it will look at the ways in which the American experience may vary, with a view towards understanding the diversity and beauty of our nation and its people. Possible authors include Toni Morrison, Amy Tan, Jhumpa Lahiri, Rudolfo Anaya, America Ferrera, Edwidge Danticat, Zora Neale Hurston, and Colson Whitehead.

Note: *This course fulfills the English requirement for the second semester of senior year. This course culminates in the Senior Presentation.*

Mass Media and Popular Culture CP, Semester 2

This course focuses on developing tools of critical analysis and active reading with which to view various media. Using critical questions, media deconstruction, and power of stories, students explore the impact of media and popular culture on human behavior, communication, and ethics. A large portion of the course is devoted to researching how values are presented in media, which will culminate with a value project. Additional assessments include written media deconstructions, discussion, collaborative and individual projects, and presentations.

Note: *This course fulfills the English requirement for the second semester of senior year. This course culminates in the Senior Presentation.*

Mystery and Suspense: The Fascination of Horror CP, Semester 2

Once an author places the focus of a story on plot, unfolding a mysterious tale, the elements of characterization and theme become minimal, but the effect on the reader becomes more intense. Since Edgar Allan Poe's tales of horror, writers have delved into the depths of the human mind and its capacity for terror, through stories of monsters, demons, ghosts and – perhaps scariest of all – the ways in which we scare ourselves. In this class, students examine the mystery and horror genres through the works of Poe, Henry James, H.P. Lovecraft, Agatha Christie, Stephen King and others.

Note: *This course fulfills the English requirement for the second semester of senior year. This course culminates in the Senior Presentation.*

Finding Your Voice: A Writing Workshop CP, Semester

This writing intensive class provides an opportunity for students to write in a variety of forms and styles, including personal narrative, fiction, drama and poetry. By examining short works written in each of these forms and experimenting with their own creations, students work on the craft of writing. Students study mentor texts in various genres and experiment with finding their own style and, most importantly, their own voice.

Note: *This course is a general elective open to all grade levels. This course does not fulfill the English requirement for the second semester of senior year.*

Women's Voices CP, Semester

How might a woman view war, or work on a farm, or a medical crisis through a different lens that that of a man? Throughout history, men have dominated nearly every field and most positions of power. This is true of the writers we study in school as well – most are male and reflect that perspective. This course will focus on fiction, poetry and nonfiction written by women, primarily through study of works from the 20th and 21st centuries. In particular it will look at the ways in which experience may vary, opening up new voices and perceptions from female writers. Possible authors include Toni Morrison, Kate Chopin, Zora Neale Hurston, Charlotte Perkins Gilman, Amy Tan, Jhumpa Lahiri, Edwidge Danticat, Sylvia Plath and more.

Note: *This course is a general elective open to all grade levels. This course does not fulfill the English requirement for the second semester of senior year.*

Speaking Up! - Public Speaking for the 21st Century CP, Semester

Speaking before an audience is both a much feared and much needed skill. Whatever your plans, your future in college and your career will probably require you to make presentations, deliver speeches and lead through your spoken words. In this class, students study the basics of poise, presence, volume and diction, and perform works written by others as well as original speeches. Students will perform a variety of speech types, from telling a joke to extemporaneous speaking, as well as practicing interview skills and presenting prepared speeches.

Note: *This course is open to sophomores, juniors and seniors. It does NOT fulfill the English requirement for senior year.*

MATHEMATICS

Algebra I CP Enriched, Full Year
This college preparatory course helps students build a strong foundation in the principles of mathematics. Methods and strategies for problem solving are emphasized in this course, along with connections and applications. This class covers similar topics to Algebra I CP ranging from order of operations to solving linear, quadratic, and radical functions. Graphing, modeling and interpreting data and functions are explored through a number of activities in conjunction with other STEM classes. Students use TI-84 graphing calculators throughout the course. This course moves at a slower pace and includes reinforcement of key concepts. Small class sizes allow for more individual instruction. This course is recommended for students who need a great deal of review of pre-Algebra.

Algebra I CP, Full Year
College Preparatory Algebra I is a course that helps students build a strong foundation in the principles of mathematics. Methods and strategies for problem solving are emphasized in this course, along with connections and applications. Topics covered in this class range from order of operations to solving linear, quadratic, and radical functions. Graphing, modeling and interpreting data and various functions are explored through a number of activities in conjunction with other STEM classes. Students utilize TI-84 graphing calculators throughout this course, supporting STEM integration through exploration, discovery and problem solving. Deeper exploration of these topics prepares students for future STEM courses.

Algebra I Honors, Full Year
This accelerated course is offered to students who are eager to learn, motivated, and looking for an academic challenge. Topics covered in this class range from order of operations to solving, graphing and modeling linear, exponential, quadratic, radical and rational functions. This course is designed to take many skills and concepts from previous math courses and expand upon them through contextually based problem solving. Throughout this course, students gain the skills and confidence necessary to be successful in future honors-level mathematics courses. Emphasis is placed on using TI-84 graphing calculators effectively and integrating Excel applications from STEM courses. These tools support integration in this STEM course through exploration, discovery and problem solving with real-world data. Deeper exploration of these topics will prepare students for future STEM courses.

NOTE: *Placement in Algebra I courses is determined by available standardized test scores and the STA Mathematics Placement Exam.*

Geometry CP Enriched, Full Year
Geometry CP Enriched is offered to students who need additional support in mathematics. While the base curriculum is similar to Geometry CP, there is flexibility in the pacing of the course to allow for additional reinforcement of all of the major topics. Concepts are taught through lecture, observations, patterns, and discovery activities. Visualization is stressed through drawings and technology to support the integration of our school-wide STEM initiatives. Class size is held down to improve the availability of the teacher for one-on-one assistance when necessary. Appropriate technology, including TI-84 graphing calculators, is used regularly in this course.

Prerequisite: *Algebra I*

Geometry CP, Full Year
College Preparatory Geometry is designed to challenge students to think analytically. A majority of the content lends itself to the notion that abstract geometric concepts provide unique opportunities for problem solving, justification, and analysis. The content of the course includes proofs, angle relationships, polygons, parallel line concepts, right triangle trigonometry, similarity, coordinate plane concepts, properties of quadrilaterals, circles, area and perimeter of

plane figures, and the properties associated with solids. Through a dedicated academic approach, students can expect to sharpen their ability to defend an argument, to improve their problem solving processes through visualization and logic and to build upon the concrete foundations created in Algebra I. These skills are essential for STEM-related coursework. Appropriate technology, including TI-84 graphing calculators, is used regularly in this course.

Prerequisite: *Algebra I. Teacher recommendation if coming from an enriched Algebra I class*

Geometry Honors, Full Year

Honors Geometry is an accelerated course that provides a thorough examination of plane, solid, and coordinate geometry. Mastery of Algebra I is essential, as these skills enhance many of the abstract concepts presented and provide numerous opportunities for justification, analysis, and applications. Topics covered include: logic and proof, parallel lines and polygons, perimeter and area analysis, volume and surface area analysis, similarity and congruence, right triangle trigonometry, circles, and other important aspects of an analytically-based geometry course. Emphasis is placed on mastering critical thinking skills as related to logical reasoning and the defense of an argument. Students are required to use the TI84 graphing calculators and other available tools in order to develop the skills necessary for success with advanced topics. These skills are essential for any STEM-related coursework. Appropriate technology, including TI-84 graphing calculators, is used regularly in this course.

Note: *Grade 9 placement in Geometry Honors is determined by available, standardized test scores and the STA Mathematics Placement Exam. Grade 10 placement in honors is determined by the teacher of the previous year's Math course.*

Algebra II CP Enriched, Full Year

This college preparatory course covers the same topics as Algebra II CP but moves at a slower pace and includes more reinforcement of key concepts. Small class sizes allow for more individualized instruction. This course is intended for students who need review of material covered in previous mathematics courses. Topics include linear and quadratic functions and their applications, powers and roots, polynomial functions, and exponential and logarithmic functions, with heavy emphasis on numeric processes, algebraic methods, graph creation and interpretation, and the language and interpretation of the mathematics. Application problems are often investigated early in a topic and solutions are included throughout each unit, with TI-84 graphing calculator skills expanded throughout the course. Successful completion of the course prepares students for Statistics CP.

Prerequisite: *Geometry*

Algebra II CP, Full Year

This course is designed to review the important concepts learned in Algebra I and to further develop these skills through the exploration of advanced topics. Concepts include variations, linear relations, systems, quadratic functions, imaginary and complex numbers, functions and their graphs, powers and roots, polynomial functions, and exponential and logarithmic functions. A heavy emphasis is placed on the application of these concepts through real-world problem solving and the importance of these skills in other STEM related courses. TI-84 graphing calculator skills are expanded throughout the course.

Prerequisite: *Geometry. Teacher recommendation if coming from an enriched Geometry class*

Algebra II Honors, Full Year

This accelerated course is for students who are motivated and eager to learn in a challenging mathematics environment. Topics include linear and quadratic functions, radical equations and expressions, and matrix algebra. In addition, students explore and apply polynomial, exponential, and logarithmic functions, concluding with conic sections, sequences, and series. Emphasis is placed on the application of graphs, equations, inequalities and systems

to model and solve problems. Appropriate technology, including TI-84 graphing calculators and application software, is used regularly in this course to advance students' skills and problem-solving abilities in all STEM areas.

Note: *Placement in an honors-level course is determined by the teacher of the previous year's Math course.*

Statistics CP, Full Year

This full year course is an introductory mathematics elective to prepare students for college level probability and statistics. Students experience, practice, and gain mastery of frequency distributions, multiple forms of displaying data, measures of dispersion and variability, probability, binomial and normal distributions, sampling, correlation, and regression analysis. TI-84 calculators are used to display and analyze data.

Prerequisite: *Recommendation from the Algebra II teacher*

Precalulus CP, Full Year

Completion of this course finishes a student's high school mathematics education and introduces early concepts of college level calculus and statistics by further integrating and applying algebra and geometry at a more advanced level, including analytic geometry and the study of functions: linear, quadratic, polynomial, rational polynomial, exponential, logarithmic, trigonometric, piecewise, composites of functions, inverses, and other special functions. One- and two-variable statistics skills and concepts up to standard deviation and normal distribution are included with binomial distribution, expansions and connected probability and combinatorics topics. Integrating the Laws of Sines and Cosines is explored and applied after basic trigonometry facts and formulas through sum and double angles are mastered. The conic sections (circles, ellipses, parabolas and hyperbolas) are included throughout the course, especially as STEM connections, to enhance and further connect students' understanding of all Precalculus topics. Usage of a TI-84 graphing calculator is tantamount to learning and problem solving throughout this course.

Prerequisites: *Algebra II. Teacher recommendation if coming from an enriched Algebra II class. Concurrent enrollment or completion of Physics CP is strongly recommended.*

Precalulus Honors, Full Year

This course stresses functions and integrates trigonometry and analytical geometry. The material covered includes the algebraic, graphical, and numerical analysis of functions, trigonometry, vectors, higher degree systems of equations, matrix algebra, polar and parametric functions, and sequences and series. The fundamentals of calculus are introduced. The course is designed for the highly motivated student with excellent math skills planning to take AP Calculus or a rigorous college calculus course. Honors Precalulus moves at a faster pace and covers the topics in greater detail than Precalulus CP. Usage of a TI-84 graphing calculator is tantamount to learning and problem solving throughout this course. This technology will often be utilized to illustrate STEM connections.

Note: *Placement in an honors-level course is determined by the teacher of the previous year's Math course.*

Precalculus Honors, Summer

Summer Precalculus is an eight-week hybrid course with a large online component. The course is designed for the highly motivated student with excellent math skills planning to take AP Calculus or a rigorous college calculus course. Material covered includes the analytic, graphical, and numerical analysis of functions, trigonometry, vectors, higher ordered degree systems of equations, matrix algebra, polar and parametric functions, and an introduction to Calculus. Usage of a TI-84 graphing calculator is tantamount to learning and problem solving throughout this course. A computer and strong internet access are also essential for this course. Students are required to purchase access to an online program called Pearson MyMathLab, where practice problems, the textbook, and other resources will be available.

Note: *Placement in this course is for students who have successfully completed Algebra II Honors, or who have a very strong recommendation and approval of the Algebra II CP instructor. If taken the summer between sophomore and junior year, students must also be enrolled in Calculus AB or Calculus Honors for the following school year. If taken between junior and senior year, students may choose to replace Calculus with AP Statistics the following year.*

Mathematics of Business and Finance CP, Full Year

This course is designed for seniors intending to pursue studies that do not require advanced mathematics. A review of essential concepts in high school mathematics is interwoven throughout the course. The course includes discussion and projects with budgeting techniques, paying for college, investing and interest accumulation strategies, the use of credit and debt, income taxes, buying a house and car, and retirement planning. Guest speakers, projects and simulations will be used. Note: this course will not prepare students for the future study of Calculus. It is recommended that students intending to study business, mathematics, or science in college enroll in Precalculus or Statistics.

Prerequisite: *Algebra II*

Calculus Honors, Full Year

In this honors-level calculus course, students study limits, differentiation, and integration, as well as many valuable theorems and applications. Students explore these concepts analytically, graphically, and through the use of TI-84 graphing calculators solve problems and make connections to Physics and other STEM areas.

Dual Enrollment Option: For a fee ($100), students who pass this course may be eligible for college credits through Southern New Hampshire University. These credits may be transferable to other institutions, allowing students to enroll in Calculus II during their freshman year.

Note: *Placement in an honors-level course is determined by the teacher of the previous year's Math course. Concurrent enrollment in Honors or AP Physics is strongly recommended.*

AP Calculus AB, Full Year

Equivalent to a college-level calculus course in single-variable calculus, this Advanced Placement Calculus AB course helps students work towards mastery of limits, derivatives, integrals, approximations and applications, with emphasis on numeric, analytic, graphic and language-based approaches to problem solving. Further topics in calculus, such as advanced techniques of integration from the BC curriculum, are explored after AP exams, especially to enhance and support STEM connections and applications. The use of a TI-84 graphing calculator in AP Calculus is an integral part of the course. This course is fast-paced and rigorous, intended for students with strong preparation and interest in mathematics. Students are required to take the AP exam in May.

Note: *Placement in an AP-level course is determined by the teacher of the previous year's Math course. Concurrent enrollment in Honors or AP Physics is strongly recommended.*

AP Calculus BC/Multivariable, Full Year

For students who have successfully completed AP Calculus AB, this course quickly reviews differential and introductory calculus of single variables before moving into second and third semester calculus topics: Techniques and Applications of Integration, including more advanced volumes, arc length and surface area; the calculus of Parametric, Polar and Vector Functions; more on Separable Differential Equations and Logistic Functions; Taylor and Maclaurin Series, and associated rules and theorems for determining convergence, intervals, radius of convergence and potential error. The use of a TI-84 graphing calculator in AP Calculus is an integral part of the

course. Students are required to take the AP Exam in May. Upon completion of the AP exam, topics in multi-variable calculus and other mathematics are included, especially to enhance and support STEM connections and applications.

Note: *Placement in an AP-level course is determined by the teacher of the previous year's Math course. Concurrent enrollment or completion of AP Physics is strongly recommended.*

AP Statistics, Full Year

This course is a mathematics elective to prepare students for college-level statistics and is highly recommended for students planning studies in the physical, social, or life sciences. Students practice and work towards mastery of the concepts and tools used to collect, analyze, and draw conclusions from data. Topics include exploratory analysis, planning and conducting studies, probability, and statistical inference. The course emphasizes problem solving and involves numerous, in-depth independent projects. TI 84 graphing calculators are used to display and analyze data. Students are required to purchase access to an online program called Pearson MyMathLab, where practice problems, the textbook and other resources will be available. Students are required to take the AP Exam in May.

Note: *Placement in an AP-level course is determined by the teacher of the previous year's Math course.*

Prerequisite: *Algebra II*

SCIENCE

STEM CP, Full Year
STEM is a freshman level science course that introduces students to STEM (science, technology, engineering, and mathematics) experiences in a project-based environment. Freshman STEM students will learn and apply the protocols of scientific research in a laboratory context. These inquiry experiences will include topics from the fields of Physics, Chemistry, and Biology. The major focus of the course is to expose students to the design process, research and analysis, communication methods, engineering standards, and technical documentation while also developing skill and understanding in fundamental concepts of science. Proper use of technology will be emphasized throughout the course in preparation for further STEM courses.

STEM Honors, Full Year
STEM is a freshman level science course that introduces students to STEM (science, technology, engineering, and mathematics) experiences in a project-based environment. Freshman STEM students will learn and apply the protocols of scientific research in a laboratory context. These inquiry experiences will include topics from the fields of Physics, Chemistry, and Biology. The major focus of the course is to expose students to the design process, research and analysis, communication methods, engineering standards, and technical documentation while also developing skill and understanding in fundamental concepts of science. Proper use of technology will be emphasized throughout the course in preparation for further STEM courses. Honors-level students will be expected to utilize a higher degree of numeracy along with demonstrating a more sophisticated approach to their design methods and strategies. Honors-level students are also challenged to take a more complex and critical thinking approach to expand their understanding of the topics.

Note: *Placement in STEM Honors course is determined through an analysis of 8th grade mathematics courses, entrance exam scores, and a Mathematics Placement Exam.*

Biology CP, Full Year
Biology CP is a sophomore course designed to provide a sound foundation in the biological sciences for college-bound students. This is a laboratory science course that investigates the development of biological systems at the molecular, cellular, and organism level using an inquiry approach. Our primary goal is for students to develop a sense of wonder for the living world while learning the basics of biological science.

Prerequisite: *STEM*

Biology Honors, Full Year
Biology Honors is an academically demanding course for those students with advanced problem-solving and analytical skills. The course is a survey course covering the major themes of biology, with special focus on interconnectedness of organisms with their environment and the impact of humans on that relationship. Laboratory experiences are numerous and they provide focus and training on the inquiry aspect of experimental design. Laboratories will focus on the generation of authentic quantitative data, using a variety of advanced techniques including technology and biotechnology. Honors Biology is recommended for those students wishing to pursue careers in STEM fields.

Note: *Placement in an honors-level course is determined by the teacher of the previous year's Science course.*

Prerequisite: *Grade 9 placement is at the approval of the Department Chair based upon performance on the entrance exam, previous science course grades, and mathematics placement.*

AP Biology, Full Year

This second-year Biology course is an intense theme-based analysis of the major concepts in the field of biological science. The course is designed to be the equivalent of a college introductory Biology course. The two main goals of AP Biology are to help students develop a conceptual framework for modern biology and to assist students with the understanding of science as a process. The major concepts covered in the course include: the study of ecology, basic cell function, biochemistry, genetics and genetic engineering, applied genetics, evolution, plant and animal anatomy and physiology, and comparative vertebrate analysis. AP Biology utilizes numerous laboratory investigations to allow students to experience the application of biological concepts to authentic issues in the world today. Students are required to take the AP Exam in May.

Note: *Placement in an AP-level course is determined by the teacher of the previous year's Science course.*

Prerequisites: *Chemistry*

Chemistry CP, Full Year

Chemistry CP is an introductory course for students who seek a strong foundation in the concepts and applications of Chemistry. Topics of study include atomic theory, nuclear chemistry, gas behavior, solution chemistry, chemical bonding and reactions, stoichiometry, acids and bases, and reaction kinetics. Laboratory activities will play an important role in illustrating the themes covered in class, and students will conduct several independent research projects. Chemistry, as a quantitative science, requires a mastery of pre-algebra and algebra concepts, including: graphing, the use of exponents, algebraic manipulations, linear equations, and scientific notation. These concepts are used frequently and reviewed in class. This course is recommended for students who may elect to pursue further courses in the sciences at the college level.

Prerequisite: *Recommendation from Biology teacher. Completion or concurrent enrollment in Algebra II*

Chemistry Honors, Full Year

Chemistry Honors is a rigorous course with classroom and laboratory content similar to Chemistry CP. However, the Chemistry Honors curriculum is more in-depth than Chemistry CP, and the student's mathematical skills are more strongly emphasized. A superior working knowledge of Algebra, including graphing and the use of graphing calculators, as well as logarithms, exponents, and scientific notation are expected. Chemistry Honors provides a foundation for more advanced course work in chemistry, and/or other technical and science fields. Problem solving in both the classroom and laboratory is heavily emphasized. This course is the recommended course for students who may wish to take AP Chemistry in a subsequent year.

Note: *Placement in an honors-level course is determined by the teacher of the previous year's Science course.*

Prerequisite: *Completion or concurrent enrollment in Algebra II*

AP Chemistry, Full Year

This second-year course in Chemistry gives the student full immersion into college-level Chemistry. The following subjects will be studied in detail: 1) the structure of matter including modern atomic theory, chemical bonding and molecular structures 2) the states of matter including gas behavior, liquids, solids, and solutions; 3) chemical reactions including reaction types, stoichiometry, equilibrium, kinetics, and thermodynamics; 4) descriptive chemistry, including the physical and chemical properties of specific elements or compounds as well as introductory organic chemistry. AP Chemistry students must exhibit high motivation and the capability for self-teaching. Students are required to take the

AP Exam in May. *AP Chemistry requires an intensive laboratory experience, so the course may involve students attending laboratory sessions before school.*

Note: *Placement in an AP-level course is determined by the teacher of the previous year's Science course.*

Prerequisites: *Completion or concurrent enrollment in Precalulus*

Physics CP, Full Year

Physics CP is a non-calculus course for students who seek a first experience with Physics and the typical rigors that go with doing Physics, especially performing laboratory work, analyzing laboratory data, composing scientific arguments, and learning how Physics principles are applied in practice. The course has heavy emphasis on lab work, and each unit is built around a project or a major investigative lab.

Prerequisites: *Recommendation from Chemistry teacher. Concurrent enrollment in Algebra II or higher*

Physics Honors, Full Year

Physics Honors is a non-calculus course for highly motivated students of proven analytical ability. The course deals with the operative concepts of Physics through mastery of a traditional foundation in mechanics. This is done while employing, and learning good scientific practice through laboratory work, analyzing laboratory data, composing scientific arguments, and understanding how Physics principles are applied in practice. Although the scope of the course is limited, an effort is made to provide an overview of the subject of Physics itself, especially through reflecting upon it as an empirical science.

Note: *Placement in an honors-level course is determined by the teacher of the previous year's Science course.*

Prerequisites: *Concurrent enrollment in Precalculus or higher*

AP Physics C, Full Year

This course, built on the conceptual foundation provided by Physics Honors, puts the student squarely into the realm of mathematical physics through the application of Calculus and Vector Analysis. AP Physics C is divided into two main content areas, Newtonian Mechanics and Electricity and Magnetism, which are illuminated and connected by means of the powerful methods of differentiation, integration, vector addition, and vector multiplication. Usually only the Mechanics part is offered, but the entire AP-C course, including Electricity and Magnetism, may be covered if a student is willing to put in extra time on their own. A laboratory experience is essential both in order to provide direct experience of Physics principles and to enhance the kind of strict scientific thinking and skilled scientific practice that defines the level of sophistication of the course. Students are required to take the AP Exam in May.

Prerequisites: *Recommendation from Physics Honors teacher. Completion or concurrent enrollment in Calculus*

Anatomy and Physiology CP, Semester

Anatomy and Physiology allows the student to develop a thorough understanding of the relationship that exists between the structure of the human body and its major functions. The curriculum will include comparative anatomical research, physiological experimentation, use of computers for analysis of collected data, and a series of group activities and projects. A recurring theme throughout the course will be the connectedness between the presented information, development of a personal plan for wellness, and the frailties and strengths of the human experience.

Prerequisite: *Biology*

Forensics CP, Semester
Forensic Science is a challenging, lab-oriented course that will introduce students to the growing role that science plays in the application of criminal and civil laws. In class, students will read actual case studies, practice using deductive reasoning skills and learn to use a wide variety of techniques and technology to examine evidence. Labs include: DNA profiling, blood typing, blood spatter analysis, forensic entomology, toxicology, drug and poison identification, forensic anthropology, trace evidence (hair and fiber) examination, document examination, fingerprinting, crime scene investigation and evidence collection.

Prerequisite: *Biology*

Intro to Electrical Engineering and Robotics CP, Semester
This junior/senior applied science elective covers fundamentals of technology where purpose, design, testing and redesign apply electronic component theory to solve problems in electronics. Special attention is given to project-based learning in resistance and capacitance, AC and DC concepts, switching, amplifiers, signal processing, telecommunications, and digital circuits. The class will apply ideas to energy management in robotics to automate, control movement, and provide sensing. Students will demonstrate proficiency with regular in-class projects that include laying out and soldering circuit boards. This class is highly recommended for students who are interested in pursuing any branch of engineering.

Prerequisites: *Completion or concurrent enrollment in Algebra II*

CP Environmental Studies, Semester
This exploratory course will be an inquiry based examination of the interdisciplinary study of environmental science. This course will explore the integration and interaction of the physical and life sciences while connecting these to the social and political aspects of environmental studies. While these issues have a global context, the primary focus of the course will be on local and regional environmental case studies. These studies will relate specifically to climate change and sustainability. The course will include a cumulative final project.

Prerequisite: *Completion of biology*

Advanced STEM Innovative Research Program Class CP, Semester
This semester-long elective class strives to tackle a new and novel idea each year, taking the idea from design board to complete product. This junior/senior class may cover principles of mechanical/structural composites engineering, product design and testing, polymer chemistry, electrical signal and power distribution, or energy. A special interest and effort will be dedicated to solving a local community problem with a technological innovation. All students will complete a unit of instruction in computer drafting, will create 3D prints of original designs, and will maintain engineering notebooks throughout the year. A final presentation to either another class, organization, corporation, or public announcement will serve as a culminating conclusion.

Prerequisites: *Chemistry; completion or concurrent enrollment in Algebra II*

Marine Biology CP, Semester
Marine Biology focuses on the interrelationships among marine organisms (e.g., algae, invertebrates, fishes, birds, and marine mammals) and various abiotic factors (e.g., pH, tides, temperature, currents, pollution, etc.). The principal objective is to impart an appreciation for the ecology of marine systems. Local resources, such as the Jackson

Laboratory, Odiorne Point and the Great Bay Watch, will be used to enhance and illustrate the principles and applications involved in our studies.

Prerequisite: *Biology*

Advanced Genetics and Biotechnology Honors, Semester

This course introduces students to the study of applied genetics and the processes associated with recombinant DNA techniques. Studies will range from the application of genetics to the process of tissue and organism development (developmental biology) to the commercial and regulatory characteristics of recombinant DNA techniques and biotechnology. This course will also evaluate the ethical nature of biotechnology by evaluating the central question: "we can…but should we?" To accomplish this goal, extensive work will be done in a laboratory setting to include independent laboratory work.

Note: *This course may be taken concurrently with AP Biology.*

Prerequisites: *Completion of Chemistry and a recommendation from your Chemistry teacher*

AP Environmental Science, Full Year

The goal of the AP Environmental Science course is to provide students with the scientific principles, concepts, and methodologies required to understand the interrelationships of the natural world, to identify and analyze environmental problems, both natural and human-made, to evaluate the relative risks associated with these problems, and to examine alternative solutions for resolving or preventing them. Environmental science is interdisciplinary; it embraces a wide variety of topics from different areas of study. There are, however, several unifying themes covered throughout the course such as: science as a process, energy conversions, Earth as one interconnected system, alteration of natural systems by humans, and social/cultural considerations to environmental problems. This course may require lab and/or fieldwork outside of scheduled class meeting times. Students are required to take the AP Exam in May.

Note: *Placement in an honors-level course is determined by the teacher of the previous year's Science course.*

Prerequisites: *Concurrent enrollment in Honors Chemistry or completion of Chemistry CP*

SOCIAL STUDIES

Global Studies CP, Semester

Global Studies is a required course for all freshmen. The course will include the study of world regions, governments, economies, cultures and global issues that will help students develop research, writing and analytical skills. The purpose of Global Studies is to give students an understanding and appreciation of major geographic and cultural areas of the world and the issues and challenges that unite and divide them. The essential social studies concepts and skills in this course provide a foundation for continuing study in social studies. The areas of study will include Latin America, the Middle East, Asia, and Africa. In each area, an emphasis will be placed upon regional characteristics, challenges and cultural heritage. Recurring themes in the course will be comparative governments and economics, social structure, daily life, and the environment. Students will be expected to understand global interdependence as it relates to culture, resource management, conflict, and human rights. Moreover, students will explore the relationship between diverse cultures and the world in which they live. Students will read, write, discuss, analyze, and take positions on multiple topics in order to frame and defend arguments. Students will use a variety of print and non-print sources to analyze and suggest solutions to real-world problems and to analyze environmental and societal issues. Students will develop critical thinking skills and perspectives to better understand the world around them.

Western Civilization CP, Full Year

This college preparatory course will investigate and study major political, social and economic turning point events in World History, including the birth of democracy in ancient Greece, the Age of Exploration, the colonization of America, the American and French Revolutions, the ratification of the United States Constitution, the Industrial Revolution, and WWI, as well as other selected topics and events. A major focus of the course will include the founding principles of democratic government, the development of modern ideas about human rights and freedoms, the development of nation states, and the increasing globalization of the world. The course will emphasize both content and skills, and students will gain practice in research, writing, analysis, and interpretation so as to engage them in the conversation of our western tradition, history, and identity.

Western Civilization Honors, Full Year

This honors level course will investigate and study major political, social and economic turning point events in World History, including the birth of democracy in ancient Greece, the Age of Exploration, the colonization of America, the American and French Revolutions, the ratification of the United States Constitution, the Industrial Revolution, and WWI, as well as other selected topics and events. A major focus of the course will include the founding principles of democratic government, the development of modern ideas about human rights and freedoms, the development of nation states, and the increasing globalization of the world. The course will emphasize both content and skills, and students will gain practice in research, writing, analysis, and interpretation so as to engage them in the conversation of our western tradition, history, and identity. In addition to regular assignments, honors level students will be required to: 1) Write at least one persuasive, critical essay per quarter, 2) Critically read and be able to interpret/discuss primary and secondary source documents, publications and materials, and 3) Read one book (an historical account or work of historical fiction) per semester.

Note: *Placement in an honors-level course is determined by the teacher of the previous year's Social Studies course.*

US History CP, Full Year

This college preparatory survey course will investigate and study major political, social and economic trends, themes and events in American history from the early 1700s to present day. Topics will include the American Revolution, Federalist Era, Westward Expansion, Age of Andrew Jackson, the Civil War, the Industrialization of America, Imperialism, the First World War, the Roaring Twenties, the Great Depression and New Deal, World War Two, the Civil Rights Movement, the Cold War, and the post-Cold War world. The course will emphasize both content and

skills, and students will gain practice in research, writing, analysis and interpretation so as to engage them in the conversation of our American tradition, history, and identity. Related topics include New Hampshire history, the Constitution and American government, and United States geography. Students will utilize primary and secondary source readings in interpreting the past.

Prerequisite: *Western Civilization*

US History Honors, Full Year

The Honors U.S. History program is designed to challenge students in analyzing and interpreting people, events, concepts and themes in American history from the early 1700s to present day. Topics will include the American Revolution, Federalist Era, Westward Expansion Age of Andrew Jackson, the Civil War, the Industrialization of America, Imperialism, the First World War, the Roaring Twenties, the Great Depression and New Deal, World War Two, the Civil Rights Movement, the Cold War, and the post-Cold War World. In addition to regular assignments, students will be required to: 1) Write at least one persuasive, critical essay per quarter (this may be a document-based essay), 2) Read and be able to interpret/discuss primary source documents and important secondary source articles and publications and, 3) Read at least one book (an historical account or work of historical fiction) per semester.

Note: *Placement in an honors-level course is determined by the teacher of the previous year's Social Studies course.*

Prerequisites: *Western Civilization*

AP US History, Full Year

The Advanced Placement Program in U.S. History is designed to provide students with the factual knowledge and analytical skills necessary to deal critically with the traditions and experiences of Americans from colonial times to present day. This is a college level class requiring extensive readings equivalent to those made by full year introductory college courses. Students learn to assess historical materials in persuasive essays and to weigh the evidence and interpretations presented in historical scholarship in classroom activities. Students in this course will have an extensive summer assignment to complete before the beginning of the fall semester of the junior year. Students are required to take the AP Exam in May.

Note: *Placement in an AP-level course is determined by the teacher of the previous year's Social Studies course.*

Prerequisites: *Western Civilization*

Economics CP, Semester

Economics is an introduction to the operation of the free enterprise system and the economic system of the United States which will enable students to understand the American economy as a citizen, a consumer, and as an employee. Current economic issues will be the focus of class projects and discussion. Computers will be used for practical applications.

Prerequisites: *Western Civilization*

Economics Honors, Semester

Economics is an introduction to the operation of the free enterprise system and the economic system of the United States which will enable students to understand the American economy as a citizen, a consumer, and as an employee. The course will emphasize the nature of markets and the role that government plays in those markets, comparative economic systems, competition and monopolies, among other topics. Current economic issues will be the focus of

class projects and discussion. The Honors level course will involve more research and writing, outside readings, and student independence.

Note: *Placement in an honors-level course is determined by the teacher of the previous year's Social Studies course.*

Prerequisites: *Western Civilization*

Psychology CP, Semester
This course focuses on the traditional and contemporary schools of thought as well as noted theorists. Special topics include stages of the life cycle, personality theories, cognitive development, and learning theories. Considerable attention is paid to adolescent issues including eating disorders, stress management, and motivation.

Prerequisite: *Western Civilization*

Introduction to the Law Honors, Semester
Students will explore several aspects of the U.S. legal system. The course will have a heavy focus on the Constitution and the landmark Supreme Court cases that have interpreted this document throughout U.S. history. Students will also be introduced to areas of the law such as torts (civil wrongdoings) and criminal law/procedure. How are these laws encountered in everyday life? What are the different rights that citizens have? Are there new laws that need to be created or are there changes that should be made to existing laws? Students will analyze these areas of the law and evaluate their impact on society. Additional "mini topics" of focus may include juvenile law, family law, educational law, intellectual property law, and entertainment/sports law. Finally, this course will explore career options in the legal field and the steps that an individual may have to take in order to enter the legal field. Guest speakers and a potential field trip will also be utilized in this course.

Note: *Placement in an honors-level course is determined by the teacher of the previous year's Social Studies course.*

Prerequisites: *Western Civilization*

Civics CP, Semester
This semester course will give students an overview of the United States government and the responsibilities of citizenship. The focus of this course is to prepare students to participate in exercising their political responsibilities as thoughtful and informed citizens. Civics provides a basis for understanding the rights and responsibilities for being an American citizen and a framework for competent and responsible participation. Topics covered include the Constitutional foundations of our government; the three branches of government; the history of political parties; government at the local, state, and national level; civil rights; and public participation in the democratic process. Course work will include readings, current events, and writing position papers as well as research.

Prerequisite: *United States History*

AP US Government, Full Year
This full year course will prepare students for the Advanced Placement Exam in U.S. Government and Politics. The class covers the following content areas: the Constitutional background of American democracy, the history of political parties and interest groups in American society, and their influence and effect upon American political history. The class also covers the three branches of government, their functions and powers, and investigates the series of checks and balances that hold them together. Civil rights, civil liberties, and public participation in the government process at the local, state, and national level are also included. Students are required to take the AP Exam in May. *Successful completion of this course and the accompanying exam could gain the student introductory college credit in government,*

therefore, this class will require substantial work on the part of the student. There will be heavy emphasis placed upon the student's writing and reading skills. Students will be required to write numerous essays and read outside sources in addition to the text, as well as complete an extensive summer assignment before the course begins in the fall semester.

Note: *Placement in an AP-level course is determined by the teacher of the previous year's Social Studies course.*

Prerequisite: *AP or Honors United States History*

WORLD LANGUAGES

French I CP, Full Year
An elementary level course, French I focuses on the language skills of reading, writing, speaking and listening. The fundamentals of grammar as well as dictionary skills will be introduced. Students will learn to communicate in the present and near future tense. The student will also learn greetings, introductions, farewells, and expressions of time, numbers, weather and other thematic vocabulary throughout the year. Conversation is an integral part of this course and students will be encouraged and required to use the language daily. Culture will be introduced so that students will gain appreciation for the French language and people.

French II CP, Full Year
An advanced elementary course, French II builds upon the same skills studied in French I. Both grammar and culture will be studied in more depth and students will become more orally proficient as they learn to use the French language. Greater oral proficiency is a main goal of this course. A more varied vocabulary including idiomatic expressions will be studied. Selected readings in context will be explored to increase reading comprehension and cultural awareness. Oral proficiency will be highlighted by means of student dialogs and teacher-initiated conversations.

Prerequisite: *French I and recommendation of French teacher.*

French III Honors, Full Year
An intermediate level course, French III Honors emphasizes communication in the language as well as reading and writing skills. Grammar will be used as a tool to enhance reading, writing, and speaking. Vocabulary and culture will be emphasized through authentic French literature as well as newspaper articles, brochures, and advertisements. This course will be primarily conducted in French and all students will be expected to participate on a daily basis.

Note: *Placement in an honors-level course is determined by the teacher of the previous year's World Language course.*

Prerequisite: *French II and recommendation of French teacher.*

French IV Honors, Full Year
An advanced level course, French IV Honors focuses on advanced grammar so that students will be better able to express themselves in French. French IV reviews all grammatical concepts learned previously as well as focuses on more advanced grammar. In order to lead students to a greater appreciation for the literature and customs of the French language, French literature will have a stronger emphasis. Classic French short stories or novels will be read and studied each term. French is the official language of this course. All students will be required to participate in French on a daily basis.

Note: *Placement in an honors-level course is determined by the teacher of the previous year's World Language course.*

Prerequisite: *French III and recommendation of French teacher.*

French V Honors, Full Year
French V Honors is an advanced level course which concentrates on French culture and literature. Grammar will continue to be a focus and will be taught in context through the literature and culture. Students will be expected to be orally proficient to the point that they will be active participants on a daily basis as well as leaders who will often take the role as teacher in the classroom. Students will be expected to keep themselves current with events that are

happening in the French speaking world. The Internet as well as other media will be used to enhance essay writing as well as oral proficiency.

Note: *Placement in an honors-level course is determined by the teacher of the previous year's World Language course.*

Prerequisite: *French IV and recommendation of French teacher.*

Spanish I CP, Full Year
Spanish I is an introductory course that explores the skills of reading, writing, listening and speaking. Spanish grammar, vocabulary, and culture are represented with the help of the Spanish text and supplementary material, such as video and audio CDs. Reading skills are stressed throughout, and oral proficiency is addressed via question/answer exercises, dialogues and everyday conversations and situation enactments. The overall objective of this course is to instill an appreciation for the Spanish language and culture, to increase awareness of the Hispanic world in both hemispheres and to give students the necessary skills to communicate at the introductory/novice level.

Spanish II CP, Full Year
Spanish II is an advanced elementary course which builds upon the same skills studied in Spanish I. Students will further develop their listening, speaking, reading, and writing skills in Spanish. Grammar, vocabulary, and culture will be studied more in-depth. Oral proficiency will be highlighted by means of student dialogues and teacher-initiated conversations.

Prerequisites: *Spanish I and recommendation of Spanish teacher.*

Spanish III CP, Full Year
Spanish III CP is an intermediate-level course that emphasizes the communication of ideas and meanings for practical purposes. All material - vocabulary, grammar, and culture - is rooted in a real-life context. Students will engage in communicative tasks that are relevant to their lives. This course weaves in culture from the Spanish-speaking world with language activities, hence these are taught concurrently. This course will be taught at a slower pace than Spanish III Honors and will consist of a total review of Spanish II.

Note: *Spanish III CP does not meet the prerequisites for Spanish IV.*

Prerequisites: *Spanish II and recommendation of Spanish teacher.*

Spanish III Honors, Full Year
Spanish III Honors is an intermediate level course emphasizing communication in the language with an additional focus on writing skills. Grammar will be used within the context of class readings and written work. Students will be expected to primarily use Spanish in daily reading, writing, and speaking. Spanish literature will be studied through a variety of Hispanic stories. Vocabulary and culture will be reinforced through topics and readings from the textbook. This course will be conducted predominantly in Spanish and all students will be expected to participate in the target language.

Note: *Placement in an honors-level course is determined by the teacher of the previous year's Spanish course.*

Prerequisites: *Spanish II or Spanish III CP and recommendation of Spanish teacher.*

Spanish IV Honors, Full Year

An advanced level course, Spanish IV Honors will focus on advanced grammar so that students will be able to better express themselves in the target language. The present and past subjunctive will be studied in addition to a thorough review of grammatical concepts. Spanish literature will have a higher emphasis in this course. Students will be reading and discussing classic Spanish short stories. This will then lead to a greater appreciation for the literature and customs of the language. Spanish is the official language of this course. All students will be required to participate in Spanish on a daily basis.

Note: *Placement in an honors-level course is determined by the teacher of the previous year's Spanish course.*

Prerequisites: *Spanish III Honors and recommendation of Spanish teacher.*

Spanish V Honors, Full Year

Spanish V Honors is an advanced course designed to prepare motivated students for further study of the Spanish language and Hispanic cultures in college, as well as for experiences in Spanish-speaking areas. Oral proficiency and vocabulary building receive particular attention, and students are required to use Spanish at all times. The Internet as well as other media will be used to enhance essay writing as well as oral proficiency. Visual arts, music, and authentic literature are studied, and students are expected to participate in and/or initiate a range of speaking activities stemming from the works and topics considered, such as casual or spontaneous conversations and discussions, debates, and skits. There are also more formal oral presentations, which students prepare beforehand. Students are asked to keep current with national and world events, in Spanish-speaking regions and elsewhere, and they should be prepared to bring these issues to the class as discussion topics.

Note: *Placement in an honors-level course is determined by the teacher of the previous year's Spanish course.*

Prerequisites: *Spanish IV Honors and recommendation of Spanish teacher.*

FINE ARTS/TECHNOLOGY

Introduction to Digital and Fine Arts, Semester
In this class students will explore the introductory elements and principles of traditional art and design, as well as exploring digital media and graphic design. Working with both computers and by hand, students will experiment with drawing, painting and 3-D design. The key principles of composition - line, shape, space, color, texture, rhythm, movement, repetition, contrast and balance - will be studied. Students will then apply these principles, working with design software as well as with pen and ink, pastels, charcoal and other media. This is a hands-on course, and will take place in both the computer lab and art studio.

Graphic Design and Drawing, Semester
This course focuses on digital/computer-based graphic design based strongly in traditional techniques; students' time will be spent working equally in both media. This course will teach the fundamental principles of composition, drawing and graphic design through use of both hands-on techniques and graphic design software. Students will use varied media for drawing by hand in pen and ink, charcoal and pencil to study composition, figure drawing, and 2-dimensional design. Using digital media, students will work with image-making, typography, composition, and working with color and shape.

Prerequisite: *Introduction to Digital and Fine Arts*

Digital Photography, Semester
This course will introduce students to both digital photography and the manipulation of images through software such as Adobe Photoshop. Students will learn the basics of operating a digital camera, photo editing, and printing. Emphasis will be placed on creativity in composition of images, use of camera controls, exposure, and use of digital imaging software. Using Photoshop, students will practice manipulating images, such as corrections and layering, and with creating photomontage and page layout.

Note: *Students are required to have their own digital camera. This course does NOT include 35mm photography or darkroom technique.*

Painting Workshop, Semester
Painting workshop is a continuing in-depth art experience that will focus on the use and development of art skills from Digital and Fine Arts. Students will investigate the emotional use of color and the use of light in painting. The art of composition and the elements and principles of design will be reviewed and used in this class. Students will work with tempera paint, watercolor, acrylics, and mixed media. The process of block printing will also be explored.

Prerequisite: *Introduction to Digital and Fine Arts*

Pottery, Semester
This is a beginner's class where students will learn the basics of hand-building, the potter's wheel, kiln firing, glazing, and surface embellishment. Wheel throwing will be demonstrated and students may create one thrown piece. Students will begin with basic slab and coil methods. Surface design techniques such as carving and glazing techniques will be used to enhance forms. Emphasis on design, including balance, proportion and composition will guide student projects. Completed pieces will be displayed in school art exhibits.

3-D Modeling and Design, Semester
This course will blend traditional and digital forms of modeling and design. As with the Graphic Design class, students will use computer modeling to explore and learn principles of three dimensional design, including 3-D

printing of projects modeled on computer. However, students will also work in studio to learn hand-building using traditional methods such as pinch, slab, and coil techniques, and additive and subtractive processes using wood, clay, wire, Crea-stone™ and foil. Attention will be given to the aesthetic concepts of spatial proportion (scale, angle, and position), silhouette, negative space, rhythm, balance, light/shadow, and texture.

Introduction to Publications, Design, and Editing, Semester

Students in this course are committed both individually and through class collaboration, to designing, developing, and publishing a first-rate yearbook for St. Thomas Aquinas High School. There are many opportunities for responsible students to gain valuable experience and develop advanced skills including the following: leadership, business, editing, graphic design, marketing, sales, advertising, art, and photography. This class mirrors a professional work, and team, environment that students will encounter when they leave high school, therefore student commitment and dedication to the finished products are expected. In keeping with this business model, students will apply and interview for positions within the class. Jobs and responsibilities may include editor, photojournalist, manager, sales, marketing, and graphic design. Many positions may require students to attend STA events during and outside of regular school hours. Throughout this semester course, students will be assessed by meeting deadlines, quality of work, and participation.

Studio Art Honors, Full year

This full year class is designed for juniors and seniors who are seriously interested in the practical experience of art. The quality and breadth of the work done during the course should reflect first-year college level standards. Therefore, only highly motivated students will be accepted into the program. Students will need to work outside the classroom as well as in, and beyond scheduled periods. Visits to museums and galleries will be used as extensions of school. Students are selected for Studio Art largely on the basis of teacher recommendation and portfolio review. Completion of the AP Studio Art Exam in May is optional. Students are responsible for portfolio costs which are approximately $150.

Prerequisite: *Introduction to Digital and Fine Arts and at least one other art course, or submission and review of a polished portfolio demonstrating a high level of skill and knowledge of color theory, drawing theory, and advanced creative thought. Note: The portfolio option is open to rising seniors ONLY.*

Concert Band, Full Year

This course involves daily rehearsals of a variety of musical selections. Required activities include school concerts, and occasional public events and festivals.

Note: *Students are required to provide their own instruments or to rent them.*

Concert Choir, Semester

The choir class rehearses daily and performs a wide variety of musical selections throughout each semester. Students become familiar with reading musical notation and rhythms. Required activities include school concerts, and occasional public events and festivals. *No previous music experience is required.*

Music Exploration, Semester

Students in this course have the opportunity to study and learn a variety of basic elements of music, such as rhythm and note-reading, while learning beginner vocal and percussion techniques. In a program of project-based learning students may look into a variety of musical styles and periods, learning how music through the centuries has relied on the basic elements of music for a foundation. This course is ideal for the student who wants to learn about music but does not have a background in music or play an instrument.

Fundamentals of Piano, Semester
This course teaches the basic elements of music through piano playing. Each student will learn how to play the piano at the elementary level. Students will also learn the basic elements of music theory. No previous music knowledge is required.

Beginning Guitar, Semester
Beginning Guitar is a course for true beginners, students who have never taken guitar lessons before. The class includes fundamental music theory, such as the basics of how to read and write music, as well as how to read both guitar tablature and notation. Students will learn how to read and play chord changes, basic technique, while playing a variety of songs and types of music.

Piano II, Semester
This class is for students that have previously studied piano or another instrument. Students will study music theory and work on progressively more challenging pieces based on their ability and skills.

Music Technology, Semester
The Music Technology course gives students the opportunity to gain powerful tools for music creativity through the intersection of traditional music and electronic music. Students will be encouraged to express their own musical ideas and apply traditional music theory and ear training principles to collaborate. This program can serve all of the following: the student with no prior musical experience, students who already study an instrument and those who have learned about music or an instrument in a less formal fashion.
Students will be provided hands-on experience with the technology in order to gain a first-hand understanding of the cutting-edge innovations that exist in the Music Technology realm. They will be able to demonstrate how technology can be used to aid in the recording and presentation of acoustic instruments as well as how electronic music can be produced or recorded. Such music creation will be explored for the variety of purposes in which it can be heard today: live performance, recorded performance, as a soundtrack to videos footage, along with other inventive avenues.

The 'I'd Like To' Ensemble, Semester
The 'I'd Like to' Ensemble is designed to re-invigorate the interests that students have had over a musical instrument of their choosing. The course is designed as a beginner instrumental ensemble that will give students an opportunity to play a musical instrument again. All musical instruments are welcome and if a student has never tried a musical instrument, they can begin here. This course is designed to help the beginner instrumentalist focus on the development of an ensemble, build teamwork and create music in a relaxed environment. Students will gain proficiency on a musical instrument and the ability to sight read music and improvise using music theory and ear training. No prior musical experience is required for this class, but if you 'used to' play a musical instrument and want to play again, this class is for you.

Jazz Band (after school), Semester
Jazz Band is a small band which ideally numbers around 20 members. This course meets **only** one day per week after school from 2:40 to 4 pm. The group specializes in playing traditional jazz standards as well as contemporary rock, blues, Latin, and funk arrangements. An understanding of the jazz idiom is helpful, but basic articulations, interpretations and beginning steps to improvisation will be taught. Required performances are for the St. Thomas Fall Concert, Christmas Concert, Solo and Ensemble Concert, and Spring Concert. Other required performances vary from year to year.

Note: *There are currently no audition requirements for Jazz Band. This course is open to Grade 9-12 and grading is pass/fail. Students are encouraged to repeat this course for additional credit. Students may also take Jazz Band on a non-credit basis by special permission only. Weekly attendance is mandatory for this after-school course. This course counts as .25 credit.*

Chamber Singers, Full Year

Chamber Singers is the name for the smaller vocal ensemble made up of advanced singers. All students in Chamber Singers must also be enrolled in Concert Choir or concert band. The group rehearses 1-2 days per week after school and performs in all school concerts, as well as for special events. Students work to develop sight-reading skills and sing a variety of challenging music in different styles. Required activities include school concerts, school liturgies and occasional public events and festivals.

Note: *Students must audition for Chamber Singers. This course is open to Grade 9-12 and grading is pass/fail. Students are encouraged to repeat this course for additional credit. Weekly attendance is mandatory for this after-school course. This course counts as .25 credit.*

FIRST Robotics, Full Year

You will learn 3D design and printing, manufacturing and fabrication skills, milling, machining, electro-mechanical and coding operations. Anyone going into a STEM based career is strongly encouraged to join as this course builds problem solving skills in a collaborative technical environment.

Note*: This course is open to Grade 9-12 and grading is pass/fail. Off-season requirements: October 1- January 7, meet once per week after school with no more than one unexcused absence. Competition Season Requirements: January 7- March 30, attend at least three sessions after school per week with no more than one unexcused absence. Attend at least one of the two competitions (Dates TBD). This course counts as .25 credit.*

Prerequisite*: None*