

# Saint Agnes Academy Upper School Program of Study 2010-2011

## Graduation Requirements

**26.5 credits including the following:**

English	4	credits
Fine Arts	1.5	credits
Foreign Language (same)	3	credits
Freshman Seminar including Technology	.5	credit
Mathematics	3	credits (4 credits beginning with the Class of 2013)
Physical Education and Health	1.5	credits (1 credit beginning with the Class of 2012)
Science	3	credits
Social Sciences	3.5	credits
Theology	4	credits
Electives	2.5	credits (3 credits beginning with the Class of 2012) (1.5 credits beginning with the Class of 2013)

**Consult the Saint Agnes Academy Handbook for credit guidelines and  
additional requirements.**

***Curriculum at a Glance***  
***(2010-2011 School Year)***

	9th	10th	11th	12th
1	Theology 1	Theology 2	Theology 3	Theology 4
2	English 1	English 2	English 3	English 4
3	Algebra 1	Geometry	Algebra 2	Electives
4	Physics 1	Biology	Chemistry	Electives
5	Drama .5 Freshman Seminar .5	United States History	World History 1	Social Sciences Course(s) (1 credit)
6	Foreign Language	Foreign Language	Foreign Language	Electives
7	Music 1 .5 Art 1 .5	Physical Education .5 Health .5	Electives	Electives .5 Social Sciences Elective Required

**Required  
Credits**

**per semester: 3.5**

**3.5**

**3.5**

**3.5**

**Note: There are no study halls.**

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# ENGLISH

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The Saint Agnes Upper School English Department provides a college preparatory curriculum that includes an introductory literature course for freshmen, American literature for sophomores, British literature for juniors, and World Literature for seniors. Courses must be successfully completed in sequence. Each course provides a survey of the specific type of literature while requiring more in-depth study of particular authors and classics relevant to the course. In all English courses, students strengthen their composition skills through writing personal, analytical, and persuasive essays and research papers. Freshman year provides a formal study of grammar, usage, and syntax, and the upper division courses continue to reinforce these skills in relationship to the students' oral and written expression. Each course reviews standardized test-taking skills and provides vocabulary study at all levels.

## **Requirements:**

1) **The English Department requires that all students pass an English Usage Test before the senior year with a passing score of 75%.**

2) **Saint Agnes Academy believes that a summer reading program enhances the students' understanding of literature and increases their preparation for college. Therefore, summer reading is assigned for each course, along with appropriate post evaluation.**

## **Honors and Advanced Placement Courses:**

1) **Students will be accepted into the Honors English 1 course based on the following:**

**-10<sup>th</sup> grade 3<sup>rd</sup> month equivalency on the English/Verbal section of the High School Placement Test or at the 3<sup>rd</sup> stanine or higher on the Independent School Entrance Exam.**

**-an A (or 94 numerical) or better for the year in 8<sup>th</sup> grade English**

**-favorable recommendation from previous English teacher concerning scholarly attitude, attendance, participation, and behavior**

**-approval of English Department Chair**

**-assessment of the Writing Section of the High School Placement Test.**

**2) Students will be accepted into the Honors English 2, 3, 4 courses based upon the following criteria, in order of importance:**

**-an 85 average or better for the year in the previous year's honors level class**

**-a scholarly attitude as determined by the previous year's instructor and based upon consistent attendance, participation, and behavior**

**-in addition, students' PSAT scores on the critical reading and writing skills sections of the PSAT may be considered to determine Honors eligibility. A 60 percentile ranking or higher on both sections is recommended**

**Note: Anyone who wishes to move from a standard to an Honors level class must have a recommendation from her current English teacher, a writing sample for the Honors teacher to approve, and a 95 average or better in English for the prior year.**

3) **Students will be accepted into the senior level AP World Literature course based upon the following:**

**-90 average or better for the year in Honors English 3**

**-a scholarly attitude as determined by the Honors English 3 instructor and based upon attendance, participation, and attitude**

**-a 60 percentile ranking or higher on the critical reading and writing skills sections of the PSAT**

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# ENGLISH CONTINUED

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**ENGLISH 1** Freshman English focuses on four main areas of language study: literature, grammar, composition, and vocabulary. As an introduction to literature, this course presents several genres, including short story, poetry, drama, and the novel. Emphasis is placed on reading literature for analysis and learning the necessary tools for evaluating good literature. Grammar study includes a review of grammar, usage, and mechanics with an English Usage test at the conclusion of the course. Composition of literary analysis essays focuses on writing as a process, with an emphasis on multiple drafts, peer editing, and revision and proofreading skills. Vocabulary study evolves from the literature and supplementary novels. **One credit.**

**HONORS ENGLISH 1** This course follows the same focus as English 1 with additional reading, writing, and research. **One credit.**

**ENGLISH 2** The content of this course is a study of American literature from the Colonial period to the modern age. Expository essay writing is emphasized. Students are required to read literary works not included in the textbook and are required to complete a literary research paper. PSAT, ACT, and SAT verbal preparation is also presented to enhance reading comprehension skills and vocabulary usage. **One credit.**

**HONORS ENGLISH 2** Students read works of American literature from the Colonial period through the modern age. The objectives of the course and the general procedures are the same as those set up for English 2 classes. However, this course requires the reading of additional novels and plays, and more in-depth analysis of literary selections. **One credit.**

**ENGLISH 3** This course is a survey of British literature. First semester emphasis is placed on paragraph writing and composition construction with a review of grammar skills. Second semester emphasis is on writing in response to literature. Vocabulary study evolves from the context of reading assignments as well as from PSAT, ACT, and SAT vocabulary materials. A research paper is required of all students. **One credit.**

**HONORS ENGLISH 3** This course is a chronological survey of British literature from the Anglo-Saxon period through the modern age. Students are required to write essays on a regular basis, with an emphasis on reading comprehension and passage analysis. A major research paper on an assigned literary topic is required second semester. Vocabulary study evolves from the context of reading assignments. Preparation for standardized tests includes vocabulary and grammar review, as well as practice testing. **One credit.**

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# ENGLISH CONTINUED

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**ENGLISH 4** The content of this course is world literature with an emphasis on studies in the novel. All genres of literature and authors of various nationalities are explored. Grammar skills are reviewed as needed in conjunction with the writing of compositions. Vocabulary study focuses on words commonly found on standardized tests. **One credit.**

**HONORS ENGLISH 4** For this course, students read selected works from the literature of various cultures and time periods. All genres are studied, and the course is organized thematically in order to promote analysis of universal themes. In addition to daily reading and class discussions, students write essays on topics related to the works and research various authors and poets. Papers are chiefly analytical, presupposing in-depth study of the works, and are subject to peer criticism and rewriting. The supplementary reading texts and assignments for this course are designed to improve critical reading skills and analytical writing skills. **Prerequisite: Honors English 3. One credit.**

**ADVANCED PLACEMENT WORLD LITERATURE** For this course, students read selected works from the literature of various cultures and time periods. All genres are studied, and the course is organized thematically in order to promote analysis of universal themes. In addition to daily reading and class discussions, students write essays on topics related to the works and research various authors and poets. Papers are chiefly analytical, presupposing in-depth study of works and are subject to peer criticism and rewriting. AP practice tests and essays also constitute a major component of this course in preparation for the required AP Exam at the end of the year. **Prerequisites: Honors English 3 and current English teacher approval based on the English Department criteria for placement. One credit.**

## *Elective Courses*

**ENGLISH COMPOSITION** This semester course is designed to strengthen writing skills necessary for success in college. Emphasis is placed on writing style, sentence structure, editing, revision and research techniques. Each of the four areas is addressed through grammar review, daily writing, and editing and revision practice. **Only juniors and seniors are eligible. One-half credit.**

**JOURNALISM - YEARBOOK** Students work together to create and edit the current school annual. They gain experience in the areas of photography, caption writing, and page layouts. In addition, students learn to use the online website designed specifically for yearbook production. **Requires a recommendation from the student's current English teacher. Enrollment is limited. Only seniors are eligible. One credit.**

**STANDARDIZED TEST PREPARATION** This semester course is designed to familiarize juniors and seniors with standardized testing techniques in preparation for the ACT and SAT. **One-half credit.**

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# FINE ARTS

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**ART 1** All freshmen are required to take one semester of Art 1. Emphasis is placed on understanding and applying the elements of art, developing skill in drawing, painting, printmaking and sculpture. Students will increase their understanding through many genres, such as still life, life drawing, and landscape. Students will work in various drawing media such as pencil and charcoal. Students will paint with tempera and watercolor and will be introduced to printmaking and clay. The work of some students will be entered in various competitions. Students will be required to furnish some supplies. **One-half credit.**

**ART 2** is an elective open to sophomores, juniors, and seniors. Continued emphasis will be placed on understanding of the elements of art at a more advanced level. Drawing and painting skills will begin to focus more on concept, expression, and composition. Art careers will be explored. Students will work in many drawing and painting media, including pencil, charcoal, watercolor, acrylic, scratchboard, colored pencils, and printmaking processes. Art history will be included in the curriculum. Outside assignments will be given each quarter. Artwork will be entered in local, regional, and national contests. Students will be required to furnish some supplies. **Prerequisite: Art 1. Requires art teacher approval. One credit.**

**ART 3** is an advanced art class open to juniors and seniors. Drawing and painting skills will be taught in a more independent studio style, allowing students to explore areas of interest suited to personal styles. A strong emphasis will be placed on developing an understanding of composition and design while focusing on expression and creativity. Students will begin building portfolios for college entrance requirements. Outside assignments will be given weekly. Artwork will be entered in local, regional, and national contests. Students will be required to furnish some supplies. **Prerequisite: Art 2. Requires art teacher approval. One credit.**

## ***ADVANCED PLACEMENT STUDIO***

**ART** is an elective for senior advanced art students. Emphasis will continue to be placed on understanding and applying the elements and principles of design. This course will focus on developing a personal style through the application of all concepts and processes learned in previous years. Classwork will include independent projects in various media, as well as developing an area of concentration chosen by the student. Students will complete portfolios for college entrance. AP students are required to develop a large body of artwork which will be presented for consideration to the AP College Board to earn college credit and to pass the course. Artwork from this class will be entered in art contests. Students will be required to furnish some supplies. **Prerequisite: Art 3 and completion of summer artwork. Requires art teacher approval. One credit.**

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# FINE ARTS CONTINUED

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**DRAMA 1-Oral Communication** All freshmen are required to take this one semester performing arts class, which is intended to introduce public speaking skills. The ability to clearly and confidently express ideas and opinions will give the student a definite advantage when interviewing for college admission, internships, summer jobs and school organizations. This workshop-based class will transform the student into a confident, articulate speaker who no longer has the word “umm” in her vocabulary! **One-half credit.**

**ADVANCED DRAMA 2** This one semester performing arts class covers all aspects of play production. Students get to participate in hands-on activities that give them a basic general knowledge of technical theater and performance theater. The course starts with stage basics and performance skills, then covers theater history and finally technical theater. This class is appropriate for anyone interested in theater. **One-half credit.**

**ADVANCED DRAMA 3** This one semester performing arts class is open to any student who has previously taken Drama 2 and is approved by the teacher. This is a performance intensive workshop class. Students will spend the entire semester working on monologues and scenes in order to improve their acting abilities. **Prerequisite: Drama 2. One-half credit.**

**VOCAL MUSIC 1** This semester course is required for all freshmen. This is a vocal music training class with emphasis on choral ensemble singing. The students will learn part-singing techniques and correct vocal production. The main focus of the course is preparation for the concert at the end of the semester. **One-half credit.**

**ADVANCED VOCAL MUSIC** This class is a continuation of the Vocal Music 1 training and ensemble singing. Primarily for Starlettes, this year-long course is open to sophomores, juniors and seniors, who have a desire to further their musical studies and to develop the vocal instrument. **Prerequisite: Vocal Music 1. Requires music teacher approval. One credit.**

**HISTORY OF THE VISUAL AND PERFORMING ARTS** This semester course will cover the development of visual art, music, and theater from the earliest civilizations to the present. Students will learn the basic elements of each of the arts, as well as the historical and cultural context in which the art was created. They will explore the interrelationships between the arts and determine how the arts reflect the culture of the time and place. **Only juniors and seniors are eligible. One-half credit.**

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# FOREIGN LANGUAGES

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Students are required to complete three years of the same language. The choices are French, Latin, or Spanish.

Note that students who meet the following specified criteria are encouraged to pursue two languages. **Prerequisites of a B+ (88) in current language. Approval of current language teacher, counselor, and department chair.**

**FRENCH 1** The French 1 course is designed to provide a good working knowledge of basic oral and written French and to create an interest in and admiration for the French culture and civilization. **One credit.**

**FRENCH 2** This second course of the French sequence is designed to enable the student to speak simple French with reasonable proficiency and with a pronunciation understandable to the native speaker, to provide a basic, but sufficient control of French grammar, to develop writing skills, and to provide a better understanding and knowledge of France and the French people. **Prerequisites: Satisfactory completion of French 1 with a minimum grade of C- (70), and French teacher recommendation. One credit.**

**FRENCH 3\*** This third course of the French sequence is designed to further develop the student's ability to express herself in French using advanced vocabulary and structures, to perfect pronunciation, to improve and develop the ability to write French, to provide the student with a detailed and extensive knowledge of French culture and civilization, and to broaden the student's taste for French literature. **Prerequisites: Satisfactory completion of French 2 with a minimum grade of C- (70), and French teacher recommendation. One credit. \*Optional 6 hours of college credit.**

**HONORS FRENCH 3\*** The main objective of this course is to start preparing students to take the Advanced Placement French Language Exam the following year. To this end students will be exposed to released AP materials throughout the course. This third course of the French sequence is designed to further develop the student's ability to express herself in French using advanced vocabulary and structures, to perfect pronunciation, to improve and develop the ability to write French, to provide the student with a detailed and extensive knowledge of French culture and civilization, and to broaden the student's taste for French literature. **Prerequisites: Satisfactory completion of French 2 with a minimum grade of B+ (88), and French teacher recommendation based on proficiency in four areas: oral proficiency, aural proficiency, reading comprehension, and written expression. One credit. \*Optional 6 hours of college credit.**

**HONORS FRENCH 4\*** The fourth course of the French sequence is designed to perfect the student's ability to express herself in French, to further develop and polish writing skills in the language, to provide a knowledge of French history, civilization and culture, and to acquaint the student with major works of French literature. **Prerequisites: Satisfactory completion of French 3 with a minimum grade of B+ (88), and French teacher recommendation. One credit. \*Optional 6 hours of college credit.**

# FOREIGN LANGUAGES CONTINUED

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## **ADVANCED PLACEMENT FRENCH LANGUAGE**

The French Language Advanced Placement course is designed to prepare students to take the Advanced Placement Exam at the end of the year. To this end students will be polishing and enhancing their knowledge of French and improving the four skills of language learning: listening, speaking, reading, and writing. The course format will follow the Advanced Placement curriculum and will include intensive oral comprehension drills as well as formal writings, listening to authentic materials from the language and culture and extensive opportunities for oral expression. All students taking the Advanced Placement course in French are required to take the Advanced Placement Examination at the end of the year. **Prerequisites: A grade of B+ (88) or higher in Honors French 3, recommendation from previous French teachers and a meeting with the AP French teacher. One credit.**  
**\*Optional 6 hours of college credit.**

\*In French 3 and 4 SAA offers the option of registering through Christian Brothers University, so that the student may receive a total of six college credit hours for each level. These hours may be transferred to many accredited colleges and universities.

**LATIN 1** Students will learn about an ancient language and culture, translate Julius Caesar and other Latin authors, understand the relevance of Latin today, use the organization and rules of Latin in the study of other disciplines, increase their English vocabulary, and better understand English grammar. **One credit.**

**LATIN 2** This course includes a survey of Latin literature, a study of Roman culture, and a review of grammar. **Prerequisite: Satisfactory completion of Latin 1 with a minimum grade of C- (70), and Latin teacher recommendation. One credit.**

**HONORS LATIN 3** The third year of study is Latin prose. Selections of Latin authors are translated and studied. Among the authors are Cato, Ovid, Nepos, Livy, Tacitus, Seneca, and

Pliny the Younger. Emphasis is placed on translating the orations of Cicero and studying the system of Roman government. **Prerequisite: Satisfactory completion of Latin 2 with a minimum grade of C- (70), and Latin teacher recommendation. One credit.**

**HONORS LATIN 4** This class is the study of Latin poetry, including Virgil, Ovid, Catallus, and Horace. Grammar forms found in poetry are studied through translation. **Prerequisite: Satisfactory completion of Latin 3 with a minimum grade of B+ (88), and Latin teacher recommendation. One credit.**

**SPANISH 1** This is an introductory course designed to provide a good working basis in oral and written Spanish and to create an interest in and appreciation of Spanish culture and civilization. **One credit.**

**SPANISH 2** The second course in the Spanish sequence is designed to develop and reinforce a sound working basis in all four of the skills required in language learning. Primary objectives are the completion of the grammar rules necessary for basic communication and the development of self-sufficiency in expressing the oral language, as well as the development of an interest in Spanish literature and culture. **Prerequisites: Satisfactory completion of Spanish 1 with a minimum grade of C- (70), and Spanish teacher recommendation. One credit.**

**SPANISH 3\*** The third course of the Spanish sequence is designed to bring together the grammar rules learned in the first two levels. Primary objectives are a systematic approach to Spanish literature, the further development of Spontaneous conversation, and means of expression in writing. **Prerequisites: Satisfactory completion of Spanish 2 with a minimum grade of C- (70), and Spanish teacher recommendation. One credit.**  
**\*Optional 6 hours of college credit.**

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# FOREIGN LANGUAGES CONTINUED

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**HONORS SPANISH 3\*** The main objective of this course is to start preparing students to take the AP Spanish Language Exam the following year. To this end students will be exposed to released AP materials throughout the course. The third course of the Spanish sequence is designed to bring together the grammar rules learned in the first two levels. Primary objectives are a systematic approach to Spanish literature, the further development of spontaneous conversation, and means of expression in writing. **Prerequisites: Satisfactory completion of Spanish 2 with a minimum grade of B+ (88), and Spanish teacher recommendation based on proficiency in four areas: oral proficiency, aural proficiency, reading comprehension, and written expression. One credit. \*Optional 6 hours of college credit.**

**HONORS SPANISH 4\*** The fourth course of the Spanish sequence is designed to perfect the student's ability to express herself well and to improve her writing skills. Students will be introduced to representative works of Spanish literature, as well as to important aspects of culture and civilization of the Hispanic world. **Prerequisites: Satisfactory completion of Spanish 3 with a minimum grade of B+ (88), and Spanish teacher recommendation. One credit. \*Optional 6 hours of college credit.**

**ADVANCED PLACEMENT SPANISH LANGUAGE** The Spanish Language Advanced Placement course is designed to prepare students to take the Advanced Placement Exam at the end of the year. To this end students will be polishing and enhancing their knowledge of Spanish and improving the four skills of language learning: listening, speaking, reading, and writing. The course format will follow the Advanced Placement curriculum and will include intensive oral comprehension drills as well as formal writings, listening to authentic materials from the language and culture and extensive opportunities for oral expression. All students taking the Advanced Placement course in Spanish are required to take the Advanced Placement Examination at the end of the year. **Prerequisites: A grade of B+ (88) or higher in Honors Spanish 3, recommendation from previous Spanish teachers and a meeting with the AP Spanish teacher. One credit. \*Optional 6 hours of college credit.**

\* In Spanish 3 and 4, SAA offers the option of registering through Christian Brothers University, so that the student may receive a total of six college credit hours for each level. These hours may be transferred to many accredited colleges and universities.

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# FRESHMAN SEMINAR INCLUDING TECHNOLOGY

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*FRESHMAN SEMINAR* is a semester course designed to develop high school awareness and promote transition from the elementary/junior high setting. The course provides students an opportunity to adjust to the academic and social environment of high school in general and St. Agnes Academy in particular. Presentation of practical information and programs to enhance the student's high school experience and personal growth forms the basis of the course. Students are introduced to the rules, regulations, and procedures of the school, as well as to services, resources, and opportunities at St. Agnes. Through an introduction to the Portfolio Program students begin to build their own portfolios, and through a career notebook project students begin to identify goals and interests. Students also participate in the Kaleidoscope Profile Inventory Learning Styles, Alcoholedu, and Alive at 25 programs, as well as technology instruction provided by the Information Technology staff.

**One-half credit.**

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# MATHEMATICS

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The Saint Agnes Upper School Mathematics Department provides a college preparatory curriculum. Our math program helps students develop their abilities to explore and solve mathematical problems, to think critically, to work cooperatively with others, and to communicate ideas clearly. The integration of technology is a vital part of this program.

## **Requirements:**

All students are required to pass a Math Proficiency Test before their senior year. The test covers practical arithmetic problems including addition, subtraction, multiplication, and division of whole numbers, decimals, and fractions. Students are also expected to demonstrate knowledge of solving linear equations, converting units of measure, and using percents. Calculators are not permitted on this math proficiency test. Students are required to complete a summer math assignment in preparation for their upcoming math courses.

**ALGEBRA 1** is designed as a standard algebra course for freshmen who demonstrate math skills appropriate to their age and grade level. Topics include solving equations, graphs and functions, systems of equations, and polynomial functions. The content and projects related to this course are designed to prepare students for geometry. **No prerequisites. One credit.**

**HONORS GEOMETRY** is designed for the freshman and rising sophomore who has mastered algebraic skills. Algebraic skills are reinforced with applications involving both linear and quadratic relationships. Students develop an understanding of the structure and concepts of Euclidean plane geometry, building naturally on the step-by-step processes of algebra. They prove theorems in more than one way using paragraph proofs, flow proofs, and two-column proofs.

**Prerequisites for rising 9th graders:**

- **10<sup>th</sup> grade 3<sup>rd</sup> month equivalency on the Math section of the High School Placement Test or at the 3<sup>rd</sup> stanine or higher on the Independent School Entrance Exam.**

- **an A (or 94 numerical) or better for the year in 8<sup>th</sup> grade Algebra**
- **favorable recommendation from previous math teacher concerning scholarly attitude, attendance, participation, and behavior**
- **approval of Math Department Chair**

**Prerequisites for rising 10th graders: a cumulative math GPA of at least 3.67 in previous math courses, a scholarly classroom attitude, math teacher recommendation, and approval of the Math Department Chair. Note that some rising sophomores may be invited to take TWO math courses, Honors Geometry and Algebra 2, during their sophomore year. This option is made available to current SAA 9th grade students in the Algebra 1 course who earn an end-of-year cumulative math GPA of at least 4.0 in SAA math courses and demonstrate a mature, scholarly attitude in the classroom. Approval of the Algebra 1 teacher and the Math Department Chair is required. One credit.**

**GEOMETRY** is the traditional math course for a sophomore with age-appropriate math skills. It provides abundant opportunities to teach students how to reason mathematically. Geometry has survived for centuries, because it is still useful in solving many practical problems in physical and life sciences, social sciences, and humanities. Algebra and trigonometry enhance the content of this course. During the first semester, concepts such as tools of geometry, proofs, parallel and perpendicular lines, congruent triangles, and quadrilaterals will be taught. The second semester will conclude with area, similarity, right triangle trigonometry, surface area, volume and circles. **Prerequisite: Successful completion of Algebra 1. One credit.**

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# MATHEMATICS CONTINUED

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**HONORS ALGEBRA 2** is the second course in the Honors sequence. This course is designed for rising sophomore and junior math students who possess a strong knowledge base in algebra and geometry topics. Students must also exhibit a commitment to quality, and a mature, scholarly attitude. **Prerequisites: Successful completion of Honors Geometry, cumulative math GPA of 3.0 or higher in SAA math courses, and approval by the Honors Geometry teacher and the Math Department Chair.** Note that some rising juniors may be invited to take TWO math courses, Honors Algebra 2 and Trigonometry, during their junior year. This option is made available to current 10th grade students in the SAA Geometry course who earn an end-of-year cumulative math GPA of at least 3.67 in SAA math courses and demonstrate a mature, scholarly attitude in the classroom. Approval of the Geometry teacher and the Math Department Chair is required. One credit.

**ALGEBRA 2** is a junior-level course which features the traditional topics of intermediate level Algebra. Topics include polynomial, rational, exponential, and trigonometric functions. Matrices, probability, sequences, and series will also be covered. **Prerequisite: Successful completion of Geometry. One credit.**

**HONORS PRE-CALCULUS** is the honors math course that links previous math courses to Calculus. Trigonometry and the theory of equations, as well as analytic geometry and limits will be studied. Students wishing to take Honors Pre-Calculus must demonstrate a commitment to quality, and a mature, scholarly attitude. **Prerequisites for rising juniors: Successful completion of Honors Geometry and Honors Algebra 2 or Algebra 2, cumulative math GPA of at least 3.0 in SAA math courses, and approval of the Algebra 2 teacher and the Math Department Chair.** **Prerequisites for rising seniors: an end-of-year cumulative math GPA of at least 3.67, and approval of the Algebra 2 teacher and the Math Department Chair. One credit.**

**TRIGONOMETRY** is the study of angles and the trigonometric functions that result from them. Right triangle trigonometry, oblique triangles, identities, and equations are studied. The graphs of the trigonometric functions and their inverses are presented. Applications of trigonometry to astronomy, surveying and construction are discussed. Skills and concepts that prepare students for an introductory calculus course will be emphasized. **Prerequisites for seniors: Successful completion of Algebra 2, math GPA of at least 3.0 in SAA math courses, and approval of the Algebra 2 teacher and the Math Department Chair. (Honors Pre-Calculus students are not eligible for this course, because they receive credit for trigonometry content in Pre-Calculus.) One credit.**

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# MATHEMATICS CONTINUED

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**INTRODUCTION TO STATISTICS** provides a foundation in both descriptive and inferential statistics. Topics include distributions, relationships, randomness, confidence intervals, tests of significance, comparisons, and experimental design. Emphasis is placed on the investigation of actual data to develop concepts and procedures. **Open to all seniors who have successfully completed Algebra 2. One credit.**

**ADVANCED PLACEMENT STATISTICS** introduces students to the major concepts and tools for collecting, analyzing, and drawing conclusions from data. Students will be exposed to four broad conceptual themes: exploring real world data, sampling and experimentation, anticipating patterns, and statistical inference. Computers and calculators will allow students to focus on conceptual understanding rather than mere knowledge of procedures. **AP testing is a requirement for this course. Prerequisite: Successful completion of Pre-Calculus or Trigonometry, a cumulative math GPA of at least 3.0 in SAA math courses, approval of current math teacher and approval of the Math Department Chair. One credit.**

**PREPARATION FOR COLLEGE MATHEMATICS** is designed for seniors who wish to strengthen their fundamental mathematics skills in preparation for college mathematics courses. **Open to all seniors who have successfully completed Algebra 2. One credit.**

**HONORS CALCULUS** covers the traditional calculus curriculum: limits, derivatives, indefinite integrals, and definite integrals. The course content is much the same as that of Advanced Placement Calculus; however, the schedule is more flexible. **Prerequisites: Successful completion of Honors Pre-Calculus (or the Trigonometry-Honors Algebra 2 combination), cumulative math GPA of at least 3.0 in SAA math courses, and approval of the current math teacher(s) and the Math Department Chair. One credit.**

**ADVANCED PLACEMENT CALCULUS AB** is designed to be equivalent to the first semester college Calculus series. This course includes some advanced trigonometry topics and basic techniques from the theory of equations. The syllabus includes analytic geometry, limits of functions, definitions of derivative, and its applications, indefinite integrals and applications of integration for algebraic, trigonometric, exponential, and logarithmic functions. This demanding course requires familiarity with all topics covered in previous math courses, a commitment to quality, and a mature, scholarly attitude. The required culminating experience for AP Calculus is the nationally standardized AP Calculus test. Some colleges may extend college credit for Calculus based upon the student's individual performance on the AP Calculus test. **Prerequisites: Successful completion of Honors Pre-Calculus (or the Trigonometry, Honors Algebra 2 combination), cumulative math GPA of at least 3.67 in SAA math courses, approval of current math teacher and approval of the Math Department Chair. One credit.**

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# PHYSICAL EDUCATION & HEALTH

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**HEALTH** This one semester course is designed to promote the choices of healthy lifestyles in the areas of physical, mental, and social health. Lifelong physical fitness is stressed, and students are encouraged to set individual fitness goals and develop exercise programs designed to meet those goals. Current issues such as dating, personal safety, drug abuse, eating disorders, nutrition, and sexuality are part of the course. Guest speakers provide important, updated information on these issues as well. **One-half credit.**

**PHYSICAL EDUCATION** This semester class offers the students instruction in lifetime activities and fulfills the P.E. requirement for high school graduation. Individual, dual, and team sports activities are included with the emphasis on offering lifelong participation opportunities. Aerobic and strength fitness along with discussions of proper nutrition will be included in order for the students to learn to plan, implement, self assess, and modify a personal fitness plan. Students are prepared to lead a physically active lifestyle. **One-half credit.**

## *Elective Courses*

### ***FAMILY AND CONSUMER SCIENCE***

This web-based one semester course is designed to help students study and experience practical applications of food science, basic sewing, as well as such topics as financial planning and etiquette. **One-half credit.**

***SPORTS CREDIT*** is designed to give credit for SAA team sport participation, either as an athlete or as a manager. Credit is awarded to those students who fulfill the requirements of each SAA sport as stipulated by the respective coach and the Athletic Department. **One-half credit will be awarded regardless of the number of sports played or managed per year.**

**NOTE: Beginning with the Class of 2012, this one-half sports credit will no longer be available.**

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# SCIENCE

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The Saint Agnes Academy Science Department provides students with a strong, well-rounded science education. The core curriculum includes one credit each in physics, biology, and chemistry. In addition, students are challenged and encouraged to pursue their special interests with a variety of courses at all levels. Honors and Advanced Placement courses have limited enrollments and special requirements as stated in the course descriptions. In all cases, enrollment in these classes will require a scholarly attitude, good attendance, and good conduct.

**PHYSICS** This course is a qualitative study of the central concepts of physics, including motion, sound, light, thermodynamics, electricity, and magnetism. Knowledge of the physical world and its laws provides a sound foundation for understanding all other sciences, including biology and chemistry. Laboratory activities provide hands-on experience with physics concepts and applications to the real world. **Physics is a requirement for all incoming first year students. One credit.**

**BIOLOGY** This course provides an introduction to the major concepts of biology including biochemistry, cytology, genetics, evolution, diversity, anatomy and physiology, and ecology. Integrated laboratory activities allow students to enhance scientific reasoning skills by applying their knowledge to experimental situations. Writing formal lab reports helps students to develop communication skills within the context of science. **One credit.**

**HONORS BIOLOGY** This course is an accelerated survey of major biological concepts including biochemistry, cytology, molecular biology, genetics, evolution, diversity, ecology, and anatomy and physiology. Integrated laboratory activities allow students to enhance scientific reasoning skills by applying their knowledge to experimental situations. By using

the computer to produce formal laboratory reports, students will develop communication skills within the context of science.

**Prerequisite: A minimum of 87 for the year in Physics. Requires approval of current science teacher and Science Department Chair. One credit.**

**CHEMISTRY** This course is designed to introduce students to the nature of chemistry, properties of matter and to build problem-solving skills through laboratory experimentation. The students learn to handle chemicals and laboratory equipment safely, and to observe, organize and record data, analyze results, and draw conclusions. Topics covered will include the structure of atoms and molecules, their behavior during chemical and physical reactions, the periodic table, and the role of chemistry in our daily lives.

**Prerequisite: Students must have successfully completed a second level mathematics course. One credit.**

**HONORS CHEMISTRY** This advanced level course is designed for students who are interested in a higher level of science. Students must have the aptitude to cover material faster and in greater depth. Topics include advanced atomic theory, physical and chemical behavior of elements, kinetic molecular theory of gases, introduction to organic chemistry, and behavior of solutions. **Requirements: Rising sophomores must have at least a 90 average for the year in Physics and must be enrolled in Honors Algebra 2 after having completed Honors Geometry. Rising juniors must have at least an 85 average for the year in Honors Biology and must be enrolled in Honors Algebra II or Honors Pre Calculus concurrent with the course. Student must be approved by the current science teacher and the Science Department Chair. One credit.**

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# SCIENCE CONTINUED

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## *Elective Courses*

**ANATOMY AND PHYSIOLOGY** This course introduces students to the healthy functioning of the major human body systems. Although the emphasis of this course is on anatomy, students will examine the physiological components of the human body in order to understand how the structures and functions of the body are related. **One credit.**

**HONORS ANATOMY AND PHYSIOLOGY** This course is designed to be equivalent to a two-semester college introductory course in Anatomy and Physiology. Students will study the human body in detail, emphasizing the complementary nature of structure and function, molecular and cellular interactions, homeostasis, and metabolic processes. **Preference is given to students currently enrolled in AP Biology or Honors Chemistry. Requires an 85 or better in Honors Chemistry or a 90 or better in Chemistry. Requires approval of current science teacher and Science Department Chair. One credit.**

**ADVANCED PLACEMENT BIOLOGY** This course is designed to be equivalent to an introductory two semester course in college biology. Topics include biochemistry, cellular biology, molecular genetics and heredity, biotechnology, diversity, structure and function of organisms, evolution, and ecology. Laboratory work includes the 12 labs recommended by the College Board. Upon completion of this course, students must take the Advanced Placement Examination and may be eligible for college credit. **A student who takes Honors Chemistry during her sophomore year must enroll in AP Biology during her junior year. Prerequisites: Requires an 80 or better in Honors Chemistry or a 90 or better in chemistry. Requires approval of the Science Department Chair. One credit.**

**ADVANCED PLACEMENT CHEMISTRY** This course is designed to be equivalent to a college level general chemistry course. Students enrolled in this course will attain an in-depth understanding of the fundamentals of chemistry. Students will display a thoughtful, systematic approach to solving problems. In addition, students will gain a deeper understanding of chemical concepts by completing various lab experiments. Topics and themes presented in the course include: the foundations of chemistry, stoichiometry, chemical reactions, properties of gases, thermochemistry, atomic structure, periodicity, bonding, kinetics, equilibrium, acid base chemistry, electro-chemistry, nuclear chemistry, and organic chemistry. Upon completion of this course, students must take the Advanced Placement Examination and may be eligible for college credit. **Requirement: At least a 90 for the year in Honors Chemistry. Must be enrolled in either Pre Calculus or Calculus. Requires approval of current science teacher, the AP Chemistry teacher, and the Science Department Chair. One credit.**

**ENVIRONMENTAL SCIENCE** is offered to seniors who want to understand the natural environment and the environmental problems that we face in the modern world. This course is interdisciplinary, involving a wide variety of topics including interconnections between the living and nonliving world, the capacity of humans to alter natural systems, social and cultural considerations, and sustainable living. **One credit.**

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# SCIENCE CONTINUED

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***ADVANCED PLACEMENT ENVIRONMENTAL SCIENCE*** This course is designed to be the equivalent to an introductory one semester college course in environmental science. By studying scientific concepts and methodologies, students will understand the interrelationships of the natural world, identify and analyze natural and man-made environmental problems, examine risks associated with environmental issues, and develop alternative solutions for solving or preventing them. Upon completion of this course, students must take the Advanced Placement Examination and may be eligible for college credit. **AP Biology and Honors Chemistry students given preference. Requires an 85 or better for the year in AP Biology or Honors Chemistry or a 90 or better for the year in Chemistry. Requires approval of AP Environmental Science teacher and Science Department Chair. One credit.**

***HONORS PHYSICS*** This course covers the concepts found in a first year college course. The program includes classic topics such as motion, Newton's Laws, works and machines, energy, liquid, solids and gases, waves, sound and light, electricity and magnetism, and atomic and nuclear physics. The laboratory exercises parallel the text and are used extensively to introduce concepts and to help students gain a real life understanding of physical principles and the mathematical beauty of nature. **Prerequisites: Must have an 85 or better for the year in Honors Chemistry or a 90 or better for the year in Chemistry. Requirement: Must be enrolled in AP Calculus AB or Honors Calculus. Requires approval of Science Department Chair. One credit.**

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# SOCIAL SCIENCES

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**UNITED STATES HISTORY** Students will, by the traditional chronological survey approach, acquire the basic factual knowledge necessary to understand US history and citizenship. Coverage begins with the Age of Exploration and proceeds to the 21st century. Students will develop critical thinking skills, as well as the ability to relate past history to current events. A research project is required for course completion. **This course is required for all sophomores, unless the student is enrolled in Advanced Placement US History. One credit.**

**ADVANCED PLACEMENT UNITED STATES HISTORY** The students will study US history from the Age of Exploration to the 21st century. The course requires extensive reading from the text as well as supplementary materials. Students will write free response and document-based essays, participate in open discussions, and research topics related to the course outline. A research project is required for course completion. Students will be required to take the Advanced Placement Examination at the completion of the course. **Prerequisites: The student must have no negative conduct for the entire preceding school year. The student must have a minimum grade average of at least an 85 in freshman English for each marking period. Requirements: Approval of the student's freshman year teachers and counselor and a score of at least the 50th percentile on the critical reading section of the PSAT. Students not otherwise qualified may petition to take the course. May be taken in place of United States History. One credit.**

**WORLD HISTORY** provides the unique opportunity to explore the whole of humankind. Studying the history of nations, civilizations, ethnic, and religious groups, as well as the differences and similarities between them, will enable one to expand her cultural literacy. The study of world history prepares one to be an educated citizen in an ever-increasingly global society. A global citizen can understand, process, and evaluate contemporary issues facing our world today. Through studies of world history one will understand how people

and societies have changed over time, which will provide a better understanding of today's world. The investigation of world history also provides moral understanding, a sense of human identity, and good citizenship. Learning the history of the world combats against ethnocentrism and generates fair-minded citizens that are necessary to compete and reside in an ever-changing world climate. Students will examine a broad scope of time from 8000 B.C.E. to the modern era in order to meet these objectives. A research project, assigned during the first semester, is required for course credit. **Required for all Juniors. One credit.**

**ADVANCED PLACEMENT WORLD HISTORY** The purpose of the AP World History course is to develop greater understanding of the evolution of global processes and contacts in interaction with different types of human societies. This understanding is advanced through a combination of selective factual knowledge and appropriate and analytical skills. The course highlights the nature of changes in international frameworks and their causes and consequences, as well as comparisons among major societies. The course emphasizes relevant factual knowledge deployed in conjunction with leading interpretive issues and types of historical evidence. The course builds on an understanding of cultural, institutional, and technological precedents that, along with geography, set the human stage. Periodization, explicitly discussed, forms an organizing principle for dealing with change and continuity throughout the course. Specific themes provide further organization to the course, along with the consistent attention to contracts among societies that form the core of world history as a field of study. A research project is required for course completion. Students will be required to take the Advanced Placement Examination at the completion of the course. **Prerequisites: The student must have no negative conduct marks in social studies classes for the entire preceding school year. The student must have a minimum grade average of at least at 85 in social studies for each marking period. Requirements: Approval of the student's previous year social studies teacher and**

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# SOCIAL SCIENCES CONTINUED

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counselor as well as a score of at least the 50th percentile on the critical reading section of the PSAT. Students not otherwise qualified may petition to take the course. May be taken in place of World History. **One Credit**

## *Elective Courses*

*These courses are traditionally open to juniors and seniors.*

**FACING HISTORY AND OURSELVES: HOLOCAUST AND HUMAN BEHAVIOR** This course provides an interdisciplinary approach to citizenship education. Students move from thought to judgement to participation as they confront the moral questions inherent in a study of violence, racism, anti-semitism and bigotry. The readings and activities explore the consequences of discrimination, racism, and anti-semitism by holding up “the tarnished mirror of history” to one of the most violent times in world history—the 1930s and 1940s. As students read and reflect, they investigate the forces that undermined democracy in Germany, betrayed a generation of young people, and ultimately led to the Holocaust. In doing so, students discover that many of those forces threaten our own society today. The course then helps students discover how their decisions can make a positive difference in their community, nation and the world. **One-half credit.**

**PERSONAL FINANCE** The study of personal finances provides the knowledge and the skills needed to make good financial decisions. Students will examine the economic impact of career choices, education, employee benefits, taxation, and inflation. Students will also learn to create a financial plan that protects income and property. Students will study the costs and benefits of credit as well as options and strategies for savings and investments. Finally, students will be introduced to such basic principles of economics as scarcity, supply and demand, and opportunity cost. **One-half credit.**

## **INTRODUCTION TO GOVERNMENT**

Objectives include an examination of the major facets of national governmental systems with an overview of the political process and the branches of government. The course examines both contemporary government as well as the historical and constitutional context within which government functions. **One-half credit.**

## **ADVANCED PLACEMENT EUROPEAN HISTORY**

The students will study the major social, political, military, economic, religious, and diplomatic developments in Europe from the High Middle Ages (1450) to the present. Students will read and interpret supplementary material, write a series of essays, and participate in open discussion. Students will be required to take the Advanced Placement Examination at the completion of the course. **Prerequisites: The student must have no negative conduct marks in social studies classes for the entire preceding school year. The student must have a minimum grade average of at least an 85 in social studies for each marking period. Requirements: Approval of the student’s previous year social studies teacher and counselor and a score of at least the 50th percentile on the critical reading section of the PSAT. Students not otherwise qualified may petition to take the course. May not be taken in place of World History 1 or 2. One credit.**

## **ADVANCED PLACEMENT UNITED STATES GOVERNMENT AND POLITICS**

Students will read in depth supplementary materials, write a series of essays, and actively participate in open discussions. Students will be required to take the Advanced Placement Examination at the completion of the course. **Prerequisites: The student must have no negative conduct for the entire preceding school year. The student must have a minimum grade average of at least an 85 in social studies for each marking**

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## SOCIAL SCIENCES CONTINUED

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period. **Requirements:** Approval of the student's previous year social studies teacher and counselor and a score of at least the 50th percentile on the critical reading section of the PSAT. Students not otherwise qualified may petition to take the course. **One-half credit.**

### ***INTRODUCTION TO PSYCHOLOGY***

This course presents a broad survey of the various areas of psychology, such as social, abnormal, developmental, behavioral, and the psychology of personality. The student is introduced to a body of knowledge which is the foundation for developing an understanding of behavior. **One-half credit.**

***ADVANCED PLACEMENT PSYCHOLOGY*** In this course, students will study the nature of personality development including the environmental, cognitive, and biological influences on personality and behavior. This course presents a broad survey of the various disciplines of psychology including research, brain anatomy and physiology, abnormal psychology, child development, social psychology, and states of consciousness. AP Psychology emphasizes such skills as reading, writing, and analysis of psychological research. Students will be required to take the Advanced Placement Examination at the completion of the course. **Prerequisites:** The student must have no negative conduct for the entire preceding school year. The student must have a minimum grade average of at least an 85 in social studies for each marking period of the previous social studies course. **Requirements:** Approval of the student's previous year social studies teacher and counselor and a score of at least the 50th percentile on the critical reading section of the PSAT. Students not otherwise qualified may petition to take the course. **One credit.**

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# TECHNOLOGY

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With our 1:1 Apple laptop program, the technology course offerings are tailored to the shifting needs of our students. iLife and iWork applications are taught in conjunction with assignments given in class. For the Freshman Class, specific sessions are designated for technology throughout the year. During this time, the students learn the applications needed to complete their media assignments: iMovie, Podcasting, Pages Keynote, Numbers, Comic Life, webpage creation, etc. Sophomore, junior and senior classes are offered review sessions on these applications as needed and requested by their teachers. Extra help is also provided through video tutorials as well as individual and small-group sessions held before and after school.

**Requirement:** Students who do not take Freshman Seminar will be required to pass a Computer Proficiency Test. Students must demonstrate basic computing skills and knowledge of applications that are required for success in high school, college, and the work force.

## *Elective Courses*

**The prerequisite for each of the one-half credit electives is successful completion of the technology freshman classes or the Computer Proficiency Test.**

**PHOTOSHOP 1** Students will concentrate on understanding the basic tools and techniques required to edit photos. They will learn to navigate the work area, understand multiple tools, learn the basics of color modes, as well as layer styles and basic re-touching. **One-half credit.**

**PHOTOSHOP 2** Using skills learned in Photoshop 1, students will explore advanced technical skills, such as working with adjustment layers, levels and curves, and advanced color correction. Students will also develop the skill of improving problem-images using restoration techniques. The students will follow a real-life project from conception to completion. **Prerequisite : Photoshop 1. One-half credit.**

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# THEOLOGY

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**Note:** Each yearlong theology course is divided into two semesters of thematic study. One-half credit is earned each semester. The course of study is in accordance with the United States Conference of Catholic Bishops.

**THEOLOGY 1** *An Overview of Catholicism* is an introductory course that covers basic Catholic beliefs and vocabulary. It is based on the Creed and includes topics such as faith, God the Father, Jesus, the Holy Spirit, the human person in relation to God, Scripture, prayer, sacraments, models of faith, and issues of morality.

*The Old Testament* is an overview of the Hebrew Scripture. This course inspires students to research, think, and talk about their faith. Students will study in depth the Word of God, learn the historical and cultural context of the passage, consider scriptural and theological themes, and draw connections to their own experiences.

**THEOLOGY 2** *The New Testament* centers on the study of the four Gospels, the Acts of the Apostles, and the Epistles. Students learn facts and information about how the Scriptures were written and what they have to say. Special attention is given to the message of the New Testament to deepen personal faith and be consistent with the whole body of truths taught by the Catholic Church.

*Morality* covers all of the major points of Part Three of *The Catechism Of the Catholic Church*, our “Life in Christ”. With the text, *Morality: A Response to God’s Love*, there are nine essential steps for living a Christian moral life in the Catholic Tradition. Through the discussion of current cases and moral dilemmas, the students are involved in serious reflections on Jesus and his teachings. Emphasis is placed on the process of moral decision making.

**THEOLOGY 3** *Church History* presents an overview of the church from the apostles to the 21st century. The course covers the Church of the Apostles, the Church of the Empire, Age of the Fathers, the European world, the Middle Ages, the Renaissance, disunity, rationalism, the Church of the Americas, the modern world, Vatican II, the Gospel of Life, and the Beatitudes.

*Sacraments: Celebrating, Living, Believing* Sacraments is a one-semester course for juniors. Students will explore in depth and learn a great deal about the foundational rituals of our Catholic faith. This process will invite them into a deeper personal involvement in the sacred signs and symbols by which God involves Himself in our lives. Students will understand more fully that when we celebrate the sacraments, we encounter the Lord Jesus in a manner that demands a wholehearted response. Through this course, students will understand more fully that when we celebrate the sacraments, the Paschal Mystery of Christ, we encounter Jesus in a way that draws us closer to Him, sanctifies and strengthens us for our journey in faith, and provides an opportunity to celebrate His presence in our lives.

**THEOLOGY 4** *Vocation: Response to God’s Call* This semester course on Christian vocation invites students to reflect on and explore who God is calling them to be as well as the importance of the spiritual dimension of life. All vocations are presented as a way to live out our Baptismal call. There are various opportunities for personal reflection and discernment as students come to a greater appreciation of, and give serious thought to whether they want to live out their Christian vocation in the lay single life, consecrated religious life, or married life.

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# THEOLOGY CONTINUED

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*Social Justice*, introduces the social mission of the Church in the light of approaching adulthood. Through the study of the Church's social teaching and by assisting at a variety of community agencies, students come to realize the responsibilities and blessings of service.

***SERVICE REQUIREMENT*** St. Agnes Academy believes that religion is lived as well as learned. In order to help students become aware of the needs of others, to help them develop an appreciation for service to others and to introduce them to the types of community service available and the people who provide them in our community, service hours are required of all students in the Upper School.

Each freshman and sophomore is required to complete at least 20 hours of service per year. Each junior and senior is required to complete at least 30 service hours per year. NOTE: This applies to students who will graduate after 2010. The current senior class is included under the earlier requirements of 15 service hours per year. At graduation, therefore, each student will have completed a minimum of 100 hours. A list of suggested service opportunities will be available for each student's reference. The hours for each year must be earned in two or more of the following four categories: neighborhood, school, church, and non-profit organizations. Key Club hours will not count for theology service hours. Awards are presented annually to students who perform more than 100 hours of service in any given year.

## **SEEK (Students Exploring and Enhancing Knowledge)**

To add to the preparation of our 21st Century learners, St. Agnes Academy offers an independent study opportunity, SEEK. Through SEEK, the students have the opportunity to study outside the formal class structure. Such a program involves further, in-depth study of a topic of interest already studied in a formal course, a topic related to a formal course, or a topic entirely new to the student. The research project culminates in a media presentation before a committee of faculty members. Upon successful completion of the project, the student receives a half credit of an A.

*The Upper School Counseling Center  
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