

## BUSINESS AND TECHNOLOGY DEPARTMENT

The Business and Technology Department curriculum is a distinct, integrated part of a college preparatory high school. The world of business and technology affects everyone in society, and courses are structured to fulfill personal, social, and career goals.

**211 ITECH** All Year 1 Credit 9

**Note: REQUIRED for ALL FROSH**

This course, iTech, (Information Technology) is a one-year course and will provide the students with the opportunity to meet the challenges of the changing developments today in technology. Today, the mere use of computers does not equal understanding. In this class, the students will be engaged in learning computer and Internet skills valued in today's academic and work environments. The following three areas will be covered: Computing Fundamentals, Key Applications, and Living Online. After the completion of each area, the students will take an exam for certification. Students who pass the exams in all three areas will receive IC<sup>3</sup> Certification (Internet and Computing Core Certification)—a worldwide industry standard.

**225 BUSINESS ECONOMICS** Semester ½ Credit 10,11,12

**Note: This course is offered in alternate years, it is NOT offered in 2009-10**

What part does the individual person play in the world of business? Every human being interacts in some way with the business world every day. This course prepares students to make decisions in their interrelated roles of consumers, wage earners, and citizens. It establishes a foundation for preparing them for a better understanding of future business-related courses or a career in business. The focus of this course is the economic system with a discussion of the following contemporary issues: the global economy, the private enterprise system, the dynamics of business in a changing world, government and business, financial institutions in the global economy, and international business. The course acquaints the students with a variety of business career opportunities and options, and it gives them a broader basis upon which to make career decisions. Contemporary topics are researched using the Internet. Students use interactive Internet sites and simulations in investigating, discussing, and problem solving today's business and economic issues.

**238 ENTREPRENEURSHIP** Semester ½ Credit 10,11,12

**Note: This course is offered in alternate years; it is offered in 2009-10**

Many young people are striking out on their own in pursuit of business dreams. Our country's phenomenal success can be traced to the spirit of individual entrepreneurs who were not afraid to start a business and find personal satisfaction and success. This course introduces the student to the fundamentals of business ownership, gives a detailed explanation for developing the marketing plan, explains the financing of a business, business ownership, and explains current and future trends in entrepreneurial opportunities. Projects will allow the student to apply the information toward the completion of a hypothetical entrepreneurial venture of her own choosing.

**220 EXCEL/ POWER POINT** Semester ½ Credit 10,11,12

**In this course, the student prepares for and takes the test to earn Microsoft Office Specialist Certification in an important computer application, Excel.** During the first half of the course, she focuses on the basics of creating, formatting, and printing spreadsheets and learns to create/print graphs and perform logical operational functions using Microsoft Office. In the second quarter, the student learns to transfer ideas into words, visual displays, and audio using Microsoft PowerPoint software. This will include the animation of various objects and the integration of these objects into PowerPoint slides. The student will use Microsoft PowerPoint to develop slide show presentations on a variety of interdisciplinary curriculum related topics such as business products, literature, current events, history and music. She will also learn good presentation skills and will develop and fine-tune these skills via presentations in front of a classroom audience as the course progresses.

**836 CONSUMER EDUCATION Semester ½ Credit 11, 12**  
**Note: REQUIRED for GRADUATION**

This Consumer Education course provides the student with skills to become an independent adult and an educated, informed consumer. The course focuses on topics relevant to economic responsibilities such as market analysis, taxation, trading, insurance, budgeting, credit, investment, careers, and consumer rights and responsibilities. Students learn to apply consumer laws and principles to everyday experiences. The course includes the computerized Stock Market Game—enabling the students to engage in realistic buying and selling of stocks. Lastly, it fulfills the State of Illinois graduation requirement for any student pursuing a diploma from high school.

## ENGLISH

### LITERATURE and COMPOSITION COURSES

All English courses emphasize reading, vocabulary, literary analysis, writing, research, speaking and listening. The curriculum is designed to teach students these skills and reinforce their knowledge throughout their coursework. Placement is based on teacher recommendation unless otherwise indicated.

**All students are expected to read an assigned novel during the summer, prior to the beginning of the school year. The reading assessment takes place during the first two weeks of the fall semester and is a part of the first quarter grade.**

**106/116 ENGLISH I All year 1 Credit 9**  
**Prerequisite: Placement by standardized exam scores**

This course introduces students to literary genres. One Shakespearean drama and at least three other major works are studied.

**118 ENGLISH I HONORS All year 1 Credit 9**  
**Prerequisite: Placement by standardized exam scores**

This course is an equivalent of English I. In addition, students advance their composition skills by beginning in-depth literary analysis. To further enrich student knowledge, at least five major works, including one Shakespearean play, are studied.

**124/126 ENGLISH II All year 1 Credit 10**

This course introduces students to world cultures and world literature. At least four major works of literature, including one Shakespearean drama, are studied.

**128 ENGLISH II HONORS: SURVEY OF BRITISH LITERATURE All year 1 Credit 10**

This course surveys British Literature and culture from the Anglo-Saxon period to the modern period. In addition to a research paper, students write several literary analysis papers. Two Shakespearean dramas and four novels are studied.

**136 ENGLISH III: AMERICAN LITERATURE All year 1 Credit 11**

This course surveys American literature from colonial to modern times. ACT/SAT test preparation is emphasized, and four major works are studied. A research-based literary analysis paper is written.

**138 ENGLISH III HONORS: AMERICAN LITERATURE All year 1 Credit 11**

This course surveys American literature from colonial to modern times. ACT/SAT test preparation is emphasized, and eight major works are studied. Numerous timed literary analysis papers prepare students for movement into advanced classes. A research-based literary analysis paper is written.

### SENIOR YEAR ENGLISH

**SENIORS** choose **ONE of the following YEAR LONG COURSES** to fulfill the fourth year English requirement:

- English IV
- English IV: AP (Honors): Advanced Placement Literature
- English IV: PACC (Honors)

**146 ENGLISH IV** All year 1 Credit 12  
This course focuses on women's and contemporary literature. Major writing requirements are a research-based literary analysis paper and a college entrance essay. Students will study a minimum of four novels.

**148 ENGLISH IV AP Literature** All year 1 Credit 12  
**Prerequisite:** Senior standing, teacher recommendation based on performance in English III  
**Note:** Early College Credit

This course engages students in the careful and critical reading of a variety of literary works in the various genres from notable world authors. Writing assignments focus on the in-depth analysis of literature and include essays with a research component. Students in this class are expected to take the AP English Literature exam and may receive college credit based on their score and the policy of the college they plan to attend.

**Note:** All students in this course are required to take the AP English Test near the end of the course in May. *There is an AP Test fee.*

#### **150 ENGLISH IV: PACC**

**Prerequisite:** Senior standing, teacher recommendation based on performance in English III, with a cumulative GPA of 3.0 or better and a score in (at least) the 50<sup>th</sup> percentile on the Plan AND teacher recommendation.

**Note:** If the student earns at least a C in this class, she earns 3 credits through the St. Mary's University, Winona, MN, PACC program. Registration with St. Mary's will be completed in August and a tuition payment of \$60 per credit (total \$180 for this course) is to be made in full at this time. Checks covering your tuition must be made payable to St. Mary's University and returned with the registration material to your teacher. While this course fulfills a Maria H.S. graduation requirement, some colleges may not accept it for college credit. Please consult your counselor for further information.

### **ENGLISH ELECTIVES**

**161 SPEECH SKILLS** Semester ½ Credit 10,11,12  
**Note:** This class does NOT count toward fulfilling English requirements.

Students in this course organize, prepare and present a wide variety of different speeches and oral activities.

**168 YEARBOOK** All year 1 Credit 10,11,12  
**Prerequisite:** A grade of C+ or above in a full year English course AND teacher approval  
**Note:** This class does NOT count toward fulfilling English requirements.

This course is designed to engage students in the production of the yearbook. Students will learn skills such as journalistic writing, computer applications, layout design, editing, leadership, and interpersonal communications. The assignments and course content are designed so that students will be able to design and produce pages for the school yearbook within the publisher's assigned deadlines.

**196 ADVANCED SPEECH SKILLS** Semester ½ Credit 10, 11, 12  
**Prerequisite:** Speech Skills

This course builds on the organizational and presentation skills learned in the introductory speech class. Students expand on previous oral activities and experience new speech types.

### **ENGLISH PLACEMENT COURSES**

**184 CATAPULT/SYLVAN READING SUPPORT** All year 1 Credit 9,10,11  
**Prerequisite:** Placement by standardized exam scores and financial need.

**Note:** This course is ADDITIONAL and does NOT count toward fulfilling English requirements.

Catapult/Sylvan Reading is operated through Title I funds and is geared towards first year students whose scores are low on the entrance exam. Students must also qualify financially for the program. Sylvan uses the program mandated by the Catapult Learning Centers that includes computer programs, handouts, and lesson books. Focus is placed on developing reading and writing skills. Students take Catapult Learning Center tests and the Nelson Denny Reading Test to assess growth.

**188 DEVELOPMENTAL READING** All year 1 Credit 9  
**Prerequisite:** Placement by standardized exam scores, and/or teacher recommendation.  
**NOTE:** This course is **ADDITIONAL** and does **NOT** count toward fulfilling English requirements.

Developmental Reading is designed for first-year students to help strengthen their reading fluency and comprehension. This course assists students in overcoming specific reading problems. With an emphasis on individual learning styles, the course focuses on vocabulary building, reading strategies, note taking, and other study skills essential to all courses.

## FINE & APPLIED ARTS

### APPLIED ARTS

**817 INTRODUCTION TO FOODS** Semester ½ Credit 9,10  
**Note:** Fee will apply

This course is designed for students to learn kitchen basics, the Food Guide Pyramid, the importance of eating three meals per day, safety and food preparation techniques; cooking and measuring terms; the use of convenience foods; and how to prepare simple and nutritious foods. Some of the favorites are: muffins, Pillsbury churros, apple sauce, pizza, monkey bread and chicken noodle soup.

**818 INTRODUCTION TO CLOTHING** Semester ½ Credit 9,10

Students will learn basic sewing machine operations, proper use of sewing supplies, sewing terms, pattern layout and cutting. Students sew a fleece hat and scarf, a drawstring bag, and shorts. Students purchase their own fabric, thread, and patterns, after being informed about the sales and the importance of saving money. These purchases will cost about \$15.00 to \$20.00, depending on your fabric choices. This is a great opportunity to develop a skill that will last a lifetime and a talent that will give you much satisfaction and joy!

**820 FOODS AND CULINARY ARTS** All year 1 Credit 10,11,12  
**Note:** Fee will apply

The world of cooking, food science, the Food Guide Pyramid, reading recipes, using basic math skills to measure ingredients and calculate cost as well as exploring the nutritional value of various foods will be some of the things that students will experience in this course. Student responsibility includes mastering concepts and techniques presented in class, in demonstrations, videos, and guest presentations. Students become familiar with how carbohydrates, protein, fats, vitamins, minerals, and other nutrients impact health and wellness. There will be a minimum of six opportunities in each nine-week quarter to work in small groups to prepare food in the Foods Lab, evaluate it, and then enjoy eating what they have made. This course is a must for students who dream of a career in the Culinary Arts or about becoming a Top Chef.

**824 BAKING/PASTRY I** Semester ½ credit 11, 12  
**Prerequisite:** Successful completion of Foods and Culinary Arts OR Successful completion of Introduction to Foods and teacher approval

**Note:** This course is offered in alternate years; it will be offered in 2009-10 but NOT in 2010-2011.  
Fee will apply

The study of the scientific behavior of ingredients in baked goods will be explored. Students will develop skills and knowledge essential in baking. Measuring, learned in previous foods courses, will be reviewed. Mixing, blending, and the proper manipulation of ingredients to achieve success in baking will be emphasized. Methods of mixing will include the conventional, the quick mix, and others as they relate to yeast dough, breads and batters. Students will have a minimum of six opportunities in each nine week quarter to work in small groups in the Foods Lab. The topics to be covered in this semester course are quick breads, yeast breads, cakes, and frostings.

**827 BAKING/PASTRY II Semester ½ credit 11, 12**  
**Prerequisite: Successful completion of Foods and Culinary Arts OR Successful completion of Introduction to Foods and teacher approval**

**Note: This course is offered in alternate years; it will be offered in 2009-10 but NOT in 2010-2011**

**Fee will apply**

This course can be a follow-up to Baking/Pastry I or it can be taken without having taken Baking/Pastry I. Students will continue to develop their skills and knowledge in baking and pastry while focusing on theory about how ingredients combine to produce certain effects. There will be a minimum of six opportunities in each nine week quarter to work in small groups in the Foods Lab. The topics to be covered in this semester course are pies and tarts, pastries: cream puffs, éclairs, crème brulee, cake decorating, creams, sauces, mousses, and candy.

**825 GLOBAL FOODS I Semester ½ credit 11,12**  
**Prerequisite: Successful completion of Foods and Culinary Arts OR Successful completion of Introduction to Foods and teacher approval**

**Note: This course is offered in alternate years; it will NOT be offered in 2009-2010.**

**Fee will apply**

Foods unique to the various regions of the United States: New England, Mid-Atlantic, South, Midwest, West and Southwest, the Pacific Coast, the Hawaiian Islands, will be studied as well as those particular to Canada, Latin America, and the Caribbean. Students will have a minimum of five opportunities in each nine week quarter to work in small groups in the Foods Lab to prepare food that is particular to those areas.

**# GLOBAL FOODS II Semester ½ credit 11,12**  
**Prerequisite: Successful completion of Foods and Culinary Arts OR Successful completion of Introduction to Foods and teacher approval**

**Note: This course is offered in alternate years; it will NOT be offered in 2009-2010.**

**Fee will apply**

This course can be a follow-up to Global Foods I or it can be taken without having had Global Foods I. The culture and cuisine of Southern Europe, Eastern Europe and Russia, Southwest Asia and Africa as well as Southern and Eastern Asia, Australia and Oceania will be explored. In the Foods Lab, students will have at least five opportunities each quarter to prepare food that is particular to these countries.

**822 CLOTHING I All year 1 Credit 10,11,12**  
**Note: Fee will apply**

This course provides instruction in techniques of clothing construction. Students learn to select appropriate patterns, fabric, notions, as well as how to adjust a pattern to fit their measurements. Following the pattern guide sheet, the basic skills of hand sewing and using a sewing machine are included in this course. Students sew three garments during the year. The garments include: flannel pants, a fleece jacket, and a skirt. Students are responsible for purchasing the pattern, fabric, and supplies needed to sew their garments. Students are informed of pattern sales and fabric sales. Supplies will cost approximately \$20 to \$25 per garment, or a total of about \$75 for the year. The students sew garments which become their property. Students should be prepared to remain after school to make up absences or to catch up on work if they are behind.

**826 BEGINNING CLOTHING Semester ½ Credit 11,12**  
**Note: This course is the First Semester Only of the course entitled Clothing 1.**

**Fee will apply**

This course provides instruction in techniques of clothing construction. Students learn to select appropriate patterns, fabric, notions, as well as how to adjust a pattern to fit their measurements. Following the pattern guide sheet, the basic skills of hand sewing and using a sewing machine are included in this course. Students sew flannel pants during the first quarter and fleece jacket during the second quarter. Students are responsible for purchasing the pattern, fabric, and supplies needed to sew their garments. Students are informed of pattern sales and fabric sales. Supplies will cost approximately \$20 to \$25 per quarter, or a total of about \$50 for the semester. The students create garments which become their property. Students should be prepared to remain after school to make up absences or to catch up on work if they are behind.

**832 CLOTHING II All Year 1 credit 11, 12**

**Prerequisite: Completion of Clothing 1 with a C or above.**

**Note: This course will NOT be offered in the 2010-2011 school year.**

**Fee will apply**

This course is for the student who is interested in developing the skills taught in Clothing1, learning additional techniques, using different types of fabrics, and mastering pattern alterations. Garments will include: a knit top, a lined jacket with lapels, and a plaid, check, one-way design or repeating design. Four garments will be sewn during the year. Students are responsible for purchasing the patterns and fabrics and encouraged to buy them on sale. Supplies will cost approximately \$25 to \$35 per quarter, or a total of about \$120 for the year. Students should be prepared to remain after school to make up absences or to catch up on work if they are behind.

## **ART**

**712 ART I All Year 1 Credit 9,10,11,12**

Art I provides the opportunity for both new and practicing artists to build their skills in the two and three dimensional arts. It serves as a building block for all other art courses in the visual arts through studies of the elements and principles of art, art criticism, art history, and cultural art. The visual arts program is enhanced by Art I through the acquisition of critical and logical thinking skills and the building of creative skills for future courses.

**756 ART II All Year 1 Credit 10, 11, 12**

**Prerequisite: Successful completion of Art I**

Art II provides a continued foundation for students who have completed Art I. Continued focus on the elements and principles of art, art criticism, art history, and cultural art is present as well as additional emphasis on the building of a personal style. The visual arts program is enhanced by Art II through the acquisition of critical and logical thinking skills, the building of creative skills for further courses, and the development of an original body of work focusing on the student's interests.

**754 ART III/IV All Year 1 Credit 11, 12**

**Prerequisite: Successful completion of Art II and teacher approval**

Art III-IV provides a continued foundation for students who have completed Art II or III and wish to focus on their choice of 2 and/or 3-dimensional techniques in an open studio setting. Continued focus on the elements and principles of art, art criticism, art history, and cultural art is present, and the continued development of the individual student's portfolio. The visual arts program is enhanced by Art III/IV through the acquisition of critical and logical thinking skills, the building of creative skills for further courses, the ability to mix 2 and 3-dimensional work, and the continued development of an original body of work focusing on the student's interests.

**ART ASSISTANT All Year ½ Credit 12**

**Prerequisite: Teacher approval**

Art Assistantships provide a continued foundation for students who have completed Art courses, but wish to focus on studio management skills. Continued focus on the elements and principles of art, art criticism, art history, and cultural art is present as well as additional emphasis on the building of all facets of studio management. This includes material preparation, bulletin board and display development and setup, Arts Showcase development, kiln loading and unloading, general studio maintenance, and project development. The visual arts program is enhanced by Art Assistantships by providing opportunities for students to learn more about the running of an art studio, through the acquisition of critical and logical thinking skills, and the building of creative skills for their future.

## DRAMA

**176 DRAMA I: INTRODUCTION TO THEATER** All year 1 Credit 9,10,11,12

**Note: This course does NOT count toward fulfilling English requirements**

This course is especially designed to introduce students to the various aspects of theater. Students engage in a wide variety of drama games and performance activities, ranging from pantomimes to parts in school productions. They not only learn the basic principles of acting and play production, but they also have opportunities to create and write their own monologues, scenes, and plays.

**178 DRAMA II: ADVANCED THEATER/PLAY PRODUCTION** All year 1 Credit 10,11,12

**Prerequisite: A grade of C or better in Drama I**

**Note: This course does NOT count toward fulfilling English requirements**

This course builds on the skills introduced in Drama I but emphasizes in-depth training of acting skills and leadership in play direction and production. Students model and facilitate class activities as well as create, direct, and produce various performance pieces, including original one-act plays.

**272 DRAMA AIDE** All year ½ Credit 12

**Prerequisite: Senior standing, completion of Drama 1, OR teacher approval.**

This course enables a student to be of assistance to the Drama courses and extra curricular activities related to drama and performance. Duties will include coaching of Drama students, setting up the stage for assemblies, and other theater production skills.

## MUSIC

**771 MUSIC APPRECIATION** Semester ½ Credit 9,10,11,12

This course covers the audience appreciation and history of music with some fundamental theory and active participation through performance. **NOTE: Music Appreciation fulfills one semester of the Arts requirement.**

**772 CHORUS** All year 1 Credit 9,10,11,12

**Note: A full year of Chorus fulfills two semesters of the Arts requirement.**

This course focuses on the development of musical concepts as related to choral singing. Stress is placed on vocal technique, etiquette, and music theory. Chorus members must plan to participate in at least TWO performances per year. **Attendance at these performances is required.**

**774 ADVANCED CHORUS** All year 1 Credit 10,11,12

**Prerequisite: Completion of Chorus with a grade of C or above AND a vocal audition with the instructor.**

This course is a concentrated application of the skills, techniques, and appreciation taught in Chorus I. Students study a continued variety of musical selections of the past and present, with emphasis on vocal development, sight reading skills, music theory, and appreciation of choral literature. Advanced chorus members will participate in several outside performances and competitions throughout the academic year. **Attendance at all performances is required.**

**782 ORCHESTRA** All year 1 Credit 9,10,11,12

**Prerequisite: Audition and approval by instructor.**

**Note: A full year of Orchestra fulfills two semesters of the Arts requirement.**

Orchestra class will enhance the playing ability of all students. This class includes strings, woodwinds, brass, and percussion. It is recommended that the student own an instrument, however, a \$20/semester deposit can be made to rent a school instrument. **Experienced players are encouraged to register**

**788 PIANO** Semester 1/2 Credit 9,10,11,12

This course will provide an introduction to the piano with basic theory. No prior experience is required. Class size is limited. Members of this class will present one recital in the spring. Attendance and performance is required.

**790 MUSIC AIDE** **All year** **½ Credit** **12**  
**Prerequisite: Senior standing, one year of music credit, AND teacher approval.**

This course enables a student to be of general assistance in the music department. The student will assist in filing, organizing, and instructing music classes.

## MATHEMATICS

**For ALL Math courses, the student must own a graphing calculator for use at home and in class. The required model is a Texas Instrument TI83, TI83+, TI84, or TI84+. Any other model must be approved by the math department chairperson before beginning the course.**

**404 PRE-ALGEBRA** **All year** **1 Credit** **9**  
**Prerequisite: Placement by entrance exam and elementary school grades.**

This course is designed to prepare students to take Algebra 1-C or Algebra 1-A in their sophomore year. Students will extensively review whole numbers, fractions, decimals, proportions, per cents, and measurement. Students will then study basic concepts from algebra: integers, evaluating expressions, and solving equations.

**412 ALGEBRA I-C** **All year** **1 Credit** **9, 10**  
**Prerequisite: Placement by entrance exam and elementary school grades.**

Major topics in Algebra are covered, including algebraic notation, solving equations, factoring, simple graphing, and the solution to word problems. There is also extensive review of basic arithmetic skills including fractions, decimals, and per cents.

**416 ALGEBRA I-A** **All year** **1 Credit** **9,10**  
**Prerequisite: Placement by entrance exam and elementary school grades.**

This course introduces the fundamental properties of the real number system and practice in deductive reasoning. Algebraic notation, graphing, algebraic manipulations including factoring, operations with radicals, and solving of equations and inequalities are covered. These techniques are also applied to the solution of word problems.

**418 ALGEBRA I HONORS** **All year** **1 Credit** **9**  
**Prerequisite: Placement by entrance exam and elementary school grades.**

This course includes variables, numbers on a number line, graphing, working with real numbers (both rational and irrational), and solving equations and inequalities, including word problems and other applications. Arithmetic manipulation of polynomials, factoring, and algebraic fractions are all covered extensively, with considerable work applying these in problem solving situations. Linear and quadratic functions are analyzed and explored with a TI83+ graphing calculator.

**426 GEOMETRY A** **All year** **1 Credit** **10, 11**  
**Prerequisite: Requires successful completion of Algebra I and instructor approval, based on previous Math level and grade.**

**Note: Students from both the classes of 2011 and 2012 may take this course in the 2009-2010 school year.**

This course for both sophomores and juniors acquaints the student with the fundamental properties of plane and solid Euclidean geometry, as well as some trigonometry of right triangles. It continues to develop the student's ability to reason logically and to write deductive proofs.

**428 GEOMETRY HONORS** **All year** **1 Credit** **10, 11**  
**Prerequisite: Requires successful completion of Algebra I and instructor approval, based on previous Math level and grade.**

**Note: Students from both the classes of 2011 and 2012 may take this course in the 2009-2010 school year.**

This geometry course for both sophomores and juniors is designed for students of above average mathematical ability. It presents the fundamental properties of Euclidean geometry, teaches the logical writing of proofs, and teaches topics from solid and coordinate geometry, as well as some trigonometry of right triangles.

**436 ALGEBRA II-A** All year 1 Credit 10, 11  
**Prerequisite:** Requires successful completion of Algebra I and instructor approval, based on previous Math level and grade.

**Note:** This course will not be offered in the 2009-2010 school year. Students from the class of 2012 may take this course in the 2010-2011 school year.

This course for juniors and sophomores is geared toward the average student who is planning to attend college. It reviews the topics of Algebra I in greater detail and then develops new topics, including arithmetic with radicals and imaginary numbers, rational exponents, quadratic equations and inequalities, extensive work with functions, systems of equations, and conic sections.

**438 ALGEBRA II HONORS** All year 1 Credit 10, 11  
**Prerequisite:** Requires successful completion of Algebra I and instructor approval, based on previous Math level and grade.

**Note:** This course will not be offered in the 2009-2010 school year. Students from the class of 2012 may take this course in the 2010-2011 school year.

This course for juniors and sophomores includes the same topics as course Algebra II-A, plus sequences, series, exponential functions, and logarithmic functions. All topics are covered in enough detail and with sufficient rigor that they can be easily applied to Calculus. year.

**442 PROBABILITY AND STATISTICS** Semester ½ Credit 12  
**Prerequisite:** Requires successful completion of Algebra I and instructor approval, based on previous Math level and grade.

This is a one-semester course designed for students with little or no previous experience with statistics and probability. It includes various types of graphs, mean, median, mode, range, percentiles and quartiles, tree diagrams, various counting techniques, compound events, conditional probability, the binomial distribution, standard deviation, the normal distribution, correlation, and the use of statistical calculators.

**443 TRIGONOMETRY A** Semester ½ Credit 12  
**Prerequisite:** Requires successful completion of Geometry and Algebra II, and instructor approval, based on previous Math level and grade.

This one-semester course covers the basic trigonometry needed for most advanced math classes and scientific applications. (It is designed for students who want to take another technical math course, but do not meet the prerequisites for Pre-calculus or do not have room in their schedules to take it.) It includes a review of right triangles, right triangle trigonometry, uses of trigonometry tables and calculators, laws of sines and cosines, circle trigonometry, trigonometric graphs, trigonometric equations, and polar coordinates.

**444 PRE-CALCULUS 1 (HONORS)** Semester ½ Credit 12  
**Prerequisite:** Requires successful completion of Algebra II-A or Algebra II Honors, and instructor approval, based on previous Math level and grade.

This one-semester honors trigonometry course provides extensive work in trigonometry needed for more advanced math classes and scientific applications. It includes right triangle trigonometry, uses of trigonometry tables and calculators, circle trigonometry, trigonometric graphs, trigonometric identities with 1 or 2 variables, laws of sines and cosines, trigonometric equations, polar coordinates, and parametric equations. Students taking Calculus must also take this course concurrently in the first semester, unless they have previously taken it.

**449 PRE-CALCULUS 2 (HONORS)** Semester ½ Credit 12  
**Prerequisite:** Requires successful completion of Algebra II-A or Algebra II Honors, and instructor approval, based on previous Math level and grade.

In a challenging and comprehensive way, this one-semester honors course explores analytical geometry, exponential functions, and logarithms.

**CALCULUS HONORS** All year 1 Credit 12  
**Prerequisite:** Requires successful completion of Algebra II Honors or Pre-Calculus 1 and Pre-Calculus 2, and instructor approval, based on previous Math level and grade.

This course is intended for students who have already completed Pre-Calculus or who have completed Algebra II Honors and are taking Pre-Calculus during the first semester. It includes all topics in the Advanced Placement AB Calculus syllabus. It presents a treatment of functions, limits, continuity, derivatives and their applications, and integrals and their applications.

**450 AP CALCULUS**

**Note:** All students in this course are required to take the AP Calculus AB Test near the end of the course in May. *There is an AP Test fee.*

**458 PACC CALCULUS**

**Additional Prerequisite:** Senior standing, with a cumulative GPA of 3.0 or better and a score in (at least) the 50<sup>th</sup> percentile on the PLAN test.

**Note:** If the student earns at least a C in this class she earns 4 credits through the St. Mary's University, Winona, MN, PACC program. Registration with St. Mary's will be completed in August and a tuition payment of \$60 per credit (total \$240 for this course) is to be made in full at this time. Checks covering your tuition must be made payable to St. Mary's University, and returned with the registration material to your teacher. *While this course may be used to fulfill a Maria H.S. graduation requirement, some colleges may not accept it for college credit. Please consult your counselor for further information.*

**MATH PLACEMENT COURSE**

**454 CATAPULT/SYLVAN MATH SUPPORT** All year 1 Credit 9,10

**Prerequisite:** Placement by standardized exam scores and Title One eligibility.

**Note:** This course is **ADDITIONAL** and does **NOT** count toward fulfilling Math requirements.

Catapult/Sylvan Math Support is operated through Title One funds and is geared towards students who test below the 40th percentile on the entrance exam. Catapult teachers use the program mandated by the Catapult Learning Centers, including computer programs, handouts, and lesson books. The focus is to develop mathematical and analytical skills. Students take Catapult Learning Center tests.

**PHYSICAL EDUCATION**

**061 PHYSICAL EDUCATION I** Semester ½ Credit 9

**Note:** **REQUIRED** for **GRADUATION**.

This required semester course emphasizes essential skill development on specific individual and team skills and lifetime fitness. Skill development will be emphasized in basketball, badminton, field hockey, flag football, soccer, softball, volleyball, and fitness. Students are graded on class participation, effort, uniform, and written tests.

**062 HEALTH** Semester ½ Credit 10,11, 12

**Note:** **REQUIRED** for **GRADUATION**.

This required semester course will enable students to better assess their physical, mental, emotional and social health. Students will acquire the skills needed to make decisions, set goals and analyze health related information. Course content areas will include: physical health, nutrition, mental health, relationships, reproductive health and human sexuality.

**063 PHYSICAL EDUCATION III** Semester ½ Credit 11,12

**Note:** **REQUIRED** for **GRADUATION**

This is required semester course emphasizes essential skills from PE I into game play. Game play is emphasized in the units of basketball, badminton, field hockey, flag football, soccer, softball, and volleyball. This course will also spend time learning about fitness through exercising different parts of the body. Students are graded on class participation, effort, uniform, and written tests.

**064 P.E. LEADERSHIP** Semester ½ Credit 11,12  
**Prerequisite: Teacher recommendation AND successful completion of PE I, Health and PE III**

This **ELECTIVE** course is designed for those who will help the physical education instructor. Students must be recommended by faculty members and demonstrate leadership qualities. This course is designed to develop necessary skills for officiating games, analyzing skills, and leading students in safe class activities. Students will use these skills by completing tasks given by the teacher.

**068 PHYSICAL EDUCATION AIDE** All year ½ Credit 12  
**Prerequisite: Senior standing, approval by the P.E. Department Chairperson, AND successful completion of PE Leadership course.**

Some assignments of the assistant will be to prepare materials for physical education classes, help the instructor in directing class activities, and perform other duties. The student will always work under the direction of the teacher during assigned class time.

## SCIENCE

**320/362 PHYSICAL SCIENCE** All year 1 Credit 9,10

This lab-oriented course prepares students for more advanced work in Chemistry and Physics through an introduction to the basic concepts of atomic structure, matter, energy, and the laws of motion, as well as measurements, calculations and laboratory techniques used in the physical sciences. Laboratory investigations are designed to expand knowledge of scientific relationships and encourage problem-solving and critical thinking.

**370 PHYSICAL SCIENCE HONORS** All year 1 Credit 9

This lab-oriented course provides an in-depth study of metric conversions and measurements, atomic structure, matter, energy and the laws of motion. There is a stronger focus on math than in the regular physical science course. It provides an excellent basis for the further study of Chemistry and Physics.

**312/316 BIOLOGY** All year 1 Credit 10,11

This lab-oriented course presents the study of life, allowing students to understand how scientific knowledge is acquired, and emphasizing important biological principles and the fundamental aspects of biology at the chemical, molecular, cellular, and population levels. Classroom and laboratory activities, projects, presentations, and discussions are used to develop critical thinking and organizational skills.

**318 BIOLOGY HONORS** All year 1 Credit 10

This lab-oriented course is a more rigorous treatment of material covered in Biology. Concepts include biochemistry, cell structure and function, metabolism, genetics, and the environment.

**326 EARTH SCIENCE** All year 1 Credit 11, 12

The lab-oriented course teaches how the natural environment impacts people and places around the world. Earth Science helps develop thinking, reasoning, and graphing skills by using laboratory work and the application of concepts. The course covers the basic foundations of Earth Science, including geology (earth materials, mapping, volcanoes, and earthquakes), earth history (the life of the earth, fossils, and the processes working over time), the effects of water on the world (especially on the land, the oceans, and the atmosphere), Astronomy, and the Earth's place in the Universe.

**336 CHEMISTRY** All year 1 Credit 11  
**Prerequisite: C average in Biology and Algebra I-A.**

This lab-oriented course develops concepts that are fundamental in understanding some basic topics in Chemistry: chemical bonding, atomic and molecular structure, periodicity, the mole concept, chemical equilibrium, and acid-base theory. Basic chemistry skills taught and used throughout the course include: the SI system of measurement, scientific notation, significant digits, the factor-label method of problem solving, chemical symbols, formulas, and equations. Concepts and skills are developed and used in the laboratory experiences.

**338 CHEMISTRY HONORS** All year 1 Credit 11  
**Prerequisite:** B average in Biology Honors and Algebra I Honors OR A in Biology and Algebra I-A.  
This course is a more rigorous treatment of the material covered in Chemistry , particularly in the areas of chemical bonding, atomic and molecular structure, periodicity, and chemical equilibrium.

**348 PHYSICS HONORS** All year 1 Credit 12  
**Prerequisite:** Student must have a B in previous Honors-level Science and Math courses OR an A in previous Regular-level Science and Math courses.  
This lab-oriented course is a rigorous treatment of the Physics material. Concepts emphasized include mechanics (force, motion, and energy), heat, electricity, magnetism, wave phenomena, and electronics, as well as an in-depth application of vector analysis.

**360 HUMAN ANATOMY & PHYSIOLOGY** All year 1 Credit 12  
This advanced-level life science course is for students interested in discovering more about the structure and function of the human body. Topics that are explored through labs, research, and presentations include homeostasis, body systems, and diseases of the human body. It is strongly recommended that students have a strong background in biology and chemistry to enroll.

## SOCIAL STUDIES

**526 GLOBAL STUDIES** All year 1 Credit 10  
This course is a survey of the geography, history, and cultures of various regions of the world. Students will be exposed to the diverse peoples in our ever shrinking world in order to learn more about them. Major events, influential people, and the world trends and controversies of the past and present will be emphasized. Map study will also be included.

**528 GLOBAL STUDIES HONORS** All year 1 Credit 10  
**Prerequisite:** Department chairperson approval.  
The world of past, present and future will be analyzed in depth. Approaches of study will cover historical, political, cultural and geographic aspects. Global predictions, based on accumulated data, will be formulated. Map study will also be included.

**536 U.S. HISTORY** All year 1 Credit 11  
**Note:** Students will take the U.S. and Illinois Constitution tests.  
This course follows the development of the United States from its colonial foundations to the present, studying how and why our nation developed as it has. Important events, persons and trends in our history will be emphasized. The structure of our government and its influence on our history will also be studied.

**538 A.P. U.S. HISTORY (HONORS)** All year 1 Credit 11  
**Prerequisite:** Minimum Junior standing, a grade of B+ or better in Global Studies Honors, AND department chairperson approval.  
**Note:** Taking the AP History exam at the completion of the AP U.S. History course is required. There is an AP Test fee. Students will also take the U.S. and Illinois Constitution tests. This course may be used to fulfill a Maria H.S. graduation requirement, some colleges may not accept it for college credit. Please consult your counselor for further information.  
This course is an in-depth study of the United States with special emphasis on historical evaluation and interpretation. The main focus will be placed on writing skills and on the research topics covered in the course. Outside reading will be required.

## SENIOR YEAR SOCIAL STUDIES

Students should select either **BOTH** of the **SEMESTER** courses **OR ONE** of the following **YEAR LONG** courses to fill their Senior Social Studies Requirement:

### SEMESTER COURSES

**545 Sociology**  
**542 US History Post 1945**

### YEAR LONG COURSES

**557 Political Science PACC H**  
**554 U.S. Government & Politics H**

**545 SOCIOLOGY** Semester ½ Credit 12

This course presents Sociology as a field of scientific knowledge which studies group behavior and its effect on the individual. Characteristics of group life, the effect of the group on human conduct, and the inter-relationships among society, culture and the individual will be studied.

**542 UNITED STATES HISTORY POST 1945** All Year 1 Credit 12

This course will involve an in depth examination of American History since 1945. Among the topics to be examined will be the Cold War, the Civil Rights Movement, Feminism, Watergate, 9-11, and Hurricane Katrina. The class will also examine the presidential administrations from Truman to present. This course will also offer an examination of the Holocaust, which involved the systematic murder of 11 million Jews and other people by the Nazis during WWII.

**540 PSYCHOLOGY** All year 1 Credit 12

This senior elective course presents Psychology as a field of scientific knowledge which studies human behavior and mental processes. It acquaints the students with the fundamental technical vocabulary and develops familiarity with various schools of thought. Topics covered include: theories of personality, human development (physical, social, and cognitive), learning and cognition, perception, sensation, and intelligence. Also, the roles of heredity versus the environment (the nature/nurture controversy), the biological roots of behavior, states of consciousness, and psychological disorders and their treatment are covered. **Note: This elective course does not fulfill the Social Studies requirement.**

**554 U.S. GOVERNMENT AND POLITICS - AP** All year 1 Credit 12

**Prerequisite: Senior standing, B average and approval of Department Chair.**

The purpose of this course is to examine how the United States is governed today by looking at present behavior as well as the Framers' intentions and how they have been implemented and adapted over the years. It is hoped that by understanding their government as it exists today students will become better citizens, make better choices and come to see politics as positive. This honors AP class emphasizes critical thinking and writing skills and deals with social justice. **Taking the AP U.S. Government and Politics exam at the completion of the course is required. There is an AP Test fee.**

**557 POLITICAL SCIENCE: American National Government, PACC** All year 12

**1 Honors credit and 3 semester hours of college credit**

**Prerequisite: Senior standing, with a cumulative GPA of 3.0 or better and a score in (at least) the 50<sup>th</sup> percentile on the Plan.**

**Note: Student earns 3 credits through the St. Mary's University, Winona, MN, PACC program. Registration with St. Mary's will be completed in August and a tuition payment of \$60 per credit (total \$180 for this course) is to be made in full at this time. Checks covering your tuition must be made payable to St. Mary's University, and returned with the registration material to your teacher. While this course may be used to fulfill a Maria H.S. graduation requirement, some colleges may not accept it for college credit. Please consult your counselor for further information.**

This is a basic course on the nature and purpose of our U.S. political system which includes the Constitution, institutions, processes and persons that combine to form our federal government. The student is exposed to a variety of approaches to political study.



**045 THEOLOGY IV - WOMEN'S SPIRITUALITY/SCRIPTURE Semester ½ Credit 12**

The focus of this course is the development of women's spirituality. It is about loving and living out a call to become the person God created us to be. Students explore various ways to deepen their sense of self and spirituality and to embrace their sacredness. Reflection on one's faith experience and beliefs helps young women to understand the message "You are made in the image of God." Students learn to embrace this message and live it. This course examines psychology and models of spirituality, scripture and tradition, the urban experience, sexuality, career aspirations and vocation.

A focus will be placed on themes such as living with each other, living with God, living in our world, living a satisfying life, women in scripture, the absence of God, and keeping religion on the right path. The student will also have opportunities to work with Scripture to plan and participate in prayer services of diverse forms and purposes. Throughout this course, the student can expect to be challenged to identify herself in Scripture and apply Scripture to her life.

**SENIOR THEOLOGY ELECTIVES**

Senior students must take two semester courses of Theology to fulfill their senior Theology requirement. One semester must include 045 Women's Spirituality/Scripture.

**041 CHRISTIAN RELATIONSHIPS AND LIFESTYLES Semester ½ Credit 12**

This course focuses on the student's lifelong process of understanding her personal identity and her role in society. It explores topics which are facets of every student's personal experience: self-identity, character, interpersonal relationships, responsibility, goals and values, decision-making, and problem solving. This course explores, from a Catholic perspective, the larger issues of life, suffering, and death. This course also explores the theme that all life is developmental and relational by studying the history, meaning and design of single life, friendships, consecrated-religious life, clerical life (ordained ministry), and marriage. Students gain an awareness of the value of God's unique call to each Christian to grow in holiness and how that occurs in these lifestyles.

**049 THEOLOGY IV-PEER MINISTRY Semester ½ Credit 12**

**Note: Admission to this course requires application and approval and a letter of recommendation from a Service Site or a letter of recommendation from a Maria High School Staff member. Registration is limited to 16 students.**

This course is structured to help Maria students develop their abilities to minister to their own classmates, to the Maria community, and to the larger world community. Students will be challenged to identify their ministry as a gift from God that is rooted in the idea of service to others. Through the texts and hands-on examples, students will be planning and implementing the events in the Maria High School community that involve ministering to their peers. They will work with the Campus Minister to create and coordinate Eucharistic liturgies, prayer services, retreats, prayer opportunities, and volunteer/service experiences. Students will also be required to keep a journal and to reflect through prayer and meditation.

**WORLD LANGUAGES**

**610 FRENCH I All year 1 Credit 9,10,11**

This course will focus on developing the four basic skills of listening, speaking, reading, and writing. Emphasis will be placed on oral communication. Furthermore, students will be introduced to French culture and geography.

**641 FRENCH IV All year 1 Credit 12**

French IV is designed for students who have completed at least three years of French. This course will provide students with the opportunity to develop advanced grammatical skills and to enhance their French language skills through increased reading, conversation, and composition.

**614/618 SPANISH I** **All year** **1 Credit** **9,10,11**  
 This first year course lays the foundation for the correct pronunciation, basic grammatical structure, and the reading and writing of the material studied. A comprehensive method is used to teach basic communicative and critical thinking skills at this level of the language. Though Spain is periodically discussed, the customs, cultures, and current events of other Spanish-speaking countries are also studied.

**608 SPANISH I HONORS** **All year** **1 Credit** **9**  
 This course is designed for students with excellent ability or previous successful study of the Spanish language. It offers an accelerated and intensive foundation of language communication. Course work will include reading, writing, oral interaction, and cultural studies.

**606 SPANISH I FOR NATIVE SPEAKERS** **All year** **1 Credit** **9, 10, 11**  
 This course is designed to improve and develop the reading, writing, and speaking skills of the Spanish-speaking student. In order to improve written expression and standard written and oral usage, there will be an emphasis on formal grammar, basic academic vocabulary, and the appropriate uses of informal and formal Spanish. In addition, reading ability and comprehension will be enriched through the reading and analysis of essays, poetry, short stories, drama, newspapers, and magazines.

**624/604 SPANISH II** **All year** **1 Credit** **9,10,11,12**  
**Prerequisite: Successful completion of Spanish I OR placement through a Spanish proficiency exam, taken prior to the course.**

The Spanish II course is designed to improve the student's proficiency in the four skills of listening, speaking, reading and writing. Spanish II will build upon the material learned in Spanish I, with more emphasis on grammar, good sentence structures, idiom formation, more complex verb conjugations, and expansion on the cultural aspects of various countries.

**628 SPANISH II Honors** **All year** **1 Credit** **10,11,12**  
 This course continues the development of conversational and written skills with the emphasis on fundamental grammatical principles of the language. Readings, guided composition, cultural studies, and discussion will further the goal of communication. Spanish will be the primary language of the classroom when communicating instructions and asking questions.

**602 SPANISH II NATIVE SPEAKERS** **All year** **1 credit** **10,11,12**  
 This is an intensive course for students who have completed Spanish for Native Speakers I. The course focuses on a comprehensive study of Spanish grammar. It includes a critical analysis of colloquial Spanish, anglicized vocabulary and influences of other languages in modern Spanish. This course allows students to develop writing skills, oral discourse and English/Spanish and Spanish/English translations. Students write essays and critiques of films, documentaries, and magazine and newspaper articles which address specific aspects of Spanish and Latin American cultures. The course further develops listening comprehension and reading skills. Classes are conducted in Spanish.

**634 SPANISH III (HONORS)** **All year** **1 Credit** **10,11,12**  
**Prerequisite: Successful completion of Spanish II with a B or better OR placement through a Spanish proficiency exam, taken prior to the course OR upon Dept. Approval.**

More emphasis is placed on Spanish grammar and using Spanish in the classroom. Students further their knowledge of the various genres of Spanish literature by reading novelettes, short stories, essays, drama, poetry, and a Spanish magazine.

**644 SPANISH IV (HONORS)** **All year** **1 Credit** **11,12**  
**Prerequisite: Successful completion of Spanish III with a grade of a C or above.**

Spanish grammar is reviewed and vocabulary building is continued. Students strive for accuracy and fluency in conversation through discussions and oral presentations. The four skills of reading, writing, speaking and listening are strengthened. A further in-depth study of Spanish customs and life are pursued by introduction to novels and reading essays, short stories, drama and poetry. A Spanish magazine is also included as part of the course.

**648 SPANISH IV: AP LIT. AND LANGUAGE (HONORS) All year 1 Credit 11,12**  
**Prerequisite: Successful completion of at least Spanish II, III with a B or better average or upon Department Approval.**

**Note: Taking the AP Lit. and Language tests at the completion of the courses is required. There is an AP Test fee.**

This course focuses on literary interpretation and analysis of poems and various short stories. In addition to that, this course also emphasizes advanced grammar, vocabulary, essay writing and using Spanish in the classroom. This course requires students to have a strong background in Spanish.

## SPECIAL DIVISION

### DRIVER AND TRAFFIC SAFETY EDUCATION

**Prerequisite: 15 years of age or older. Minimum Sophomore standing.**

Classroom instruction will be offered only as an AFTER SCHOOL class. Additional details will be announced to students prior to enrollment.

### SENIOR STUDENT AIDES

**Note: Each course meets for the full year to earn the ½ UNIT of credit.**

Maria High School highly encourages all seniors to take a full course load of seven academic classes each semester. For those few seniors who have an elective slot available, the selection of ONE of a variety of assistant positions may be possible. The number of positions in each area is severely limited. All requests for assistant positions are subject to review. Junior students should obtain PRE-APPROVAL by the head of the area PRIOR to registering.

**252 ART AIDE All year ½ Credit 12**

**Prerequisite: Senior standing, a minimum of two years of art credit, AND teacher approval.**

Art Assistantships provide a continued foundation for students who have completed Art courses, but wish to focus on studio management skills. Continued focus on the elements and principles of art, art criticism, art history, and cultural art is present as well as additional emphasis on the building of all facets of studio management. This includes material preparation, bulletin board and display development and setup, Arts Showcase development, kiln loading and unloading, general studio maintenance, and project development. The visual arts program is enhanced by Art Assistantships by providing opportunities for students to learn more about the running of an art studio, through the acquisition of critical and logical thinking skills, and the building of creative skills for their future.

**272 DRAMA AIDE All year ½ Credit 12**

**Prerequisite: Senior standing, completion of Drama 1, OR teacher approval.**

This course enables a student to be of assistance to the Drama courses and extra curricular activities related to drama and performance. Duties will include coaching of Drama students, setting up the stage for assemblies, and other theater production skills.

**254 GUIDANCE AIDE All year ½ Credit 12**

**Prerequisite: Senior in good standing with approval by the Guidance Department**

Guidance Aides will gain experience in general clerical skills. These students must be very trustworthy, responsible and demonstrate a dependable work ethic. **Confidentiality and good attendance is mandatory.**

**256 LIBRARY AIDE All year ½ Credit 12**

**Prerequisite: Senior standing AND approval by the Head Librarian.**

Library Aide positions are available to students who would like to gain experience in general library skills. Duties include maintaining library equipment, as well as a variety of other library duties that arise.

**790 MUSIC AIDE All year ½ Credit 12**

**Prerequisite: Senior standing, one year of music credit, AND teacher approval.**

This course enables a student to be of general assistance in the music department. The student will assist in filing, organizing, and instructing music classes.

**258 OFFICE AIDE** **All year** **½ Credit** **12**

**Prerequisite: Senior standing AND approval by the Administration.**

Positions in the main office are available to students who would like to gain experience in general clerical skills. Duties may include filing, switchboard, reception, computer use, and other various duties that arise. Depending on the need, an Office Assistant position may be available in a variety of offices throughout the building.

**068 PHYSICAL EDUCATION AIDE** **All year** **½ Credit** **12**

**Prerequisite: Senior standing, approval by the P.E. Department Chairperson, AND successful completion of PE Leadership course.**

Some assignments of the assistant will be to prepare materials for physical education classes, help the instructor in directing class activities, and perform other duties. The student will always work under the direction of the teacher during assigned class time.