

# St. Maria Goretti Catholic High School



# Fall 2022-2023 Course Descriptions

## ST. MARIA GORETTI HIGH SCHOOL COURSE DESCRIPTIONS 2022-2023

## **Mission Statement**

# Our mission is to provide a Catholic college preparatory education inspiring academic excellence, spiritual growth, leadership, and service.

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#### ACADEMIC PROGRAM

#### Requirements

In order to graduate students must pass all required courses and fulfill all academic requirements. The academic requirements are consistent with the State of Maryland's requirements for graduation.

# St. Maria Goretti Catholic High School Graduation Requirements (effective class of 2026)

THEOLOGY	4 Credits: Yearly retreats required			
ENGLISH	4 Credits			
MATHEMATICS	4 Credits (one per year): Required Courses: Algebra 1, Geometry, Algebra II			
PHYSICAL EDUCATION	.5 Credit			
SCIENCE	3 Next Generation Science Standards (NGSS) Credits: 1 Earth/Space Science Credit, 1 Life Science Credit, 1 Physical Science Credit			
SOCIAL STUDIES	3 Credits: 1 U.S. History Credit, 1 World History Credit, 1 Government Credit			
FINE ARTS	1 Credit: (Art and/or Music)			
TECHNOLOGY	1 Credit			
ELECTIVES	3.5 Credits			
HEALTH	1 Credit (Class of 2025 and beyond)			
WORLD LANGUAGE	2 Credits (same language)			
Total Credits	27 Credits			

100 Hours (25 hours per year)

**Community Service** 

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#### **Middle School Credit**

High school credit may be awarded for middle school courses in each academic curricular area under the following circumstances:

- The course is identified as an approved course for high school credit;
- The middle school course follows the outcomes and rigor of the approved high school course;
- The student passed the approved middle school course.
- Credit awarded in the middle school will not be calculated in a student's high school grade point average (GPA).

#### **Advanced Placement**

Students enrolled in an AP course are expected to take the AP exam. The fee for the exam will be paid for by Goretti. Students who choose not to take the exam after it has been paid for will need to reimburse Goretti for the test fee. Admittance to Honors and AP courses is subject to instructor recommendation as well as successful completion of the prior course in the academic sequence. Prerequisites are included with course descriptions.

#### **Dual Enrollment**

The following are the Colleges/Universities that we have dual enrollment partnerships with.

Hagerstown Community College - The ESSENCE Program Mount St. Mary's University Shepherd University Hood College Wilson College

With advance approval from administration students are able to enroll in coursework at these colleges in order to earn college credit and Goretti credit concurrently. Tuition and fees are determined by the respective colleges and may be in addition to Goretti tuition. Admission criteria also are determined by the respective colleges and may require placement testing or certain GPA requirements.

Students interested in dual enrollment options must contact the Director of Guidance and the Principal for approval to participate in dual enrollment coursework during. Approval will be based on course content, compatibility with Goretti's master schedule, and the student's remaining graduation requirements. Please see additional criteria and regulations regarding dual enrollment outlined in Goretti's Dual Enrollment Form below.



First Name	Last Name			
Current Grade Level	Current GPA	Fall 2022		

St. Maria Goretti students will be permitted to take **pre-approved courses** for dual enrollment credit throughout their experience at Goretti. This form must be completed and signed by the parent/guardian and school counselor or school administrator prior to enrollment in these courses.

Course Name and Number	Name of College or University	Start Date	Location of Course	Approved

- Students may only take dual enrollment courses that are not offered at Goretti.
- Students may only take dual enrollment courses with partnering institutions.
- Dual enrollment courses may only be taken during the Junior and Senior years, unless scheduled by administration.
- A maximum of three courses may be taken concurrently.
- At a maximum, Goretti will pay for three 4-credit math courses, one 4-credit science course, and three 3-credit electives over the span of the student's high school experience. Exceptions will be subject to Administration approval.
- All of the dual enrollment classes must meet graduation requirements.
- All grades for pre- approved dual enrollment courses will be reflected on high school transcripts.
- Core graduation requirements may not be taken during the summer to replace a course at Goretti. Dual enrollment courses taken during the summer will not be reflected on a high school transcript.
- Students are responsible for purchasing their own textbooks and course materials. If textbooks are not purchased, students may be billed to their student account.
- Students are responsible for all fees. Any refunds or monies received from the college/university will be returned to Goretti.
- If a student withdraws and or fails after the university's 100% penalty free withdrawal period, parents will be responsible for reimbursing Goretti for course tuition.
- Students will be required to give parent permission to access grades through the university.

Counselor/Administrator's Signature/Date

# THEOLOGY

**Requirements** – Four years of Theology are a requirement for all students. Service Learning requirement (a minimum of 25 service hours per academic year) is a component of the Theology grade. Students must attend a grade level retreat each year.

## THEO 101 – Faith and Revelation (.5 Credit) -- Year: 9 Required

This course offers students a general knowledge and appreciation of the Christian Sacred Scriptures. Through their study of the Bible, they will come to encounter the living Word of God, Jesus Christ. In the course, they will learn about the Bible, authored by God through Inspiration, and its value to people throughout the world. If they have not been taught this earlier, they will learn how to read the Bible and will become familiar with the major sections of the Bible and the books included in each section. The students will pay particular attention to the Gospels, where they may grow to know and love Jesus Christ more personally.

## THEO 102-- The Blessed Trinity (.5 Credit) -- Year: 9 Required

In this course, students are introduced to the work and person of Jesus Christ, the living Word of God and the second person of the Trinity. Students will explore the understanding that Jesus Christ is the ultimate Revelation to us from God. In learning about who He is, the students will also learn who He calls them to be. <u>Prerequisite: Theo 101</u>

## THEO 201-- The Paschal Mystery (.5 Credit) -- Year: 10 Required

This course helps students to further understand all that God has done for us through His Son, Jesus Christ. Students will discover that—for all eternity—God has planned for us to share eternal happiness with Him, which is accomplished through the redemption Christ won for us. Students will learn that they share in this redemption only in and through Jesus Christ. They will also be introduced to what it means to be a disciple of Christ and what life as a disciple entails. A separate chastity unit is included at the end of this course.

## Prerequisite: Theo 102

## THEO 202--The Church is Christ's Body (.5 Credit) -- Year: 10 Required

This course is intended to help students understand that, in and through the Church, they encounter the living Jesus Christ. They will be introduced to the fact that the Church was founded by Christ through the Apostles and is sustained by Him through the Holy Spirit. The students will come to know how the Church is the living Body of Christ today, with both divine and human elements. In this course, students will learn about the sacred nature of the Church through the events in the life and history of the Church.

## Prerequisite: Theo 201

## THEO 301--The Sacraments (.5 Credit) -- Year: 11 Required

In this course, students will more fully realize that they can encounter Christ today in a full and real way in and through the sacraments, especially through the Eucharist. Students will examine each of the sacraments in detail so as to learn how they may profoundly encounter Christ throughout their lives.

Prerequisite: Theo 202

## THEO 302-- OurMoral Life in Christ (.5 Credit) -- Year: 11 Required

This course helps students to understand that it is only through Christ that they can fully live out God's plans for their lives. Students will learn the moral concepts and precepts that govern the lives of Christ's disciples, built on the foundation of the Ten Commandments.

Prerequisite: Theo 301

## THEO 401--Catholic Social Teaching (.5 Credit) -- Year: 12 Required

This course introduces students to the Church's social teaching. In particular, students will learn how Christ's concern for others, especially the poor and vulnerable, is present today in the Church's social teaching and mission. Using "Faith-in-Action" methodology, a wide range of social justice topics will be discussed and analyzed. **Prerequisite: Theo 302** 

## THEO 402-- Christ's Church & World Religions (.5 Credit) -- Year: 12 Required

In this course students will come to understand the manner in which the Catholic Church relates to non-Catholic Christians as well as other religions of the world. Building on the foundational truth that Jesus Christ established the Catholic Church and entrusted to her the fullness of God's Revelation, the course is intended to help students recognize the ways in which important spiritual truths can also be found in non-Catholic Christian Churches as well as non-Christian religions. It is also intended to help them recognize the ways in which other systems of belief and practice differ from the Catholic faith.

Prerequisite: Theo 401



## **ENGLISH**

**Requirements: Four complete years of English are a requirement for all students.** Courses are available in college preparatory, honors, and AP. English teacher recommendation, writing sample, and minimum grade average in prior-year classes are required for transitioning between on-level and advanced (Honors) placement. Electives are available for students in grades 11 and 12 who wish to continue the development of their skills in literary analysis, speaking, and writing.

## ENGL 101--Intro to Literature and Composition (1 credit) -- Year: 9 Required

This course combines a genre-based survey of literature with the study of vocabulary, grammar, and usage. Students read and respond to poetry, novels, short stories, and drama with a focus on developing an increasing ability to respond critically to the material both in class discussion and written form. Students will explore literary devices and methods in order to more fully respond to literature. Texts may include *The Hunger Games* by Suzanne Collins, *The House on Mango Street* by Sandra Cisneros, *Romeo and Juliet* by William Shakespeare, and *To Kill a Mockingbird* by Harper Lee.

## ENGL 101H--Intro to Literature and Composition Honors (1 credit) -- Year: 9

This course combines a genre-based survey of literature with the study of vocabulary, grammar, and usage. Students read and respond to poetry, novels, short stories, and drama with a focus on developing an increasing ability to respond critically to the material both in class discussion and written form. Students will explore literary devices and methods in order to more fully respond to literature. Texts may include *The Hunger Games* by Suzanne Collins, *The House on Mango Street* by Sandra Cisneros, *Romeo and Juliet* by William Shakespeare, and *To Kill a Mockingbird* by Harper Lee. <u>Prerequisite:</u> Incoming freshmen requesting placement in Intro to Literature and Composition Honors will be placed into the course based on faculty discretion following the Freshman Placement Test.

## ENGL 201--World Literature (1 credit) -- Year: 10 Required

World Literature, the College-Preparatory course of English II, focuses on different pieces of literature and different lenses found throughout the World. Through the exploration and analysis of short stories, poetry, drama, novels, and nonfiction texts, students will study literature from various regions around the world. Texts may include works from the following authors: Yamile Saied Méndez, Art Spiegelman, James Joyce, D. H. Lawrence, Amy Tan, Jennifer Nansugba Makumbi, and Leslie Marmon Silko. Writing and reading comprehension skills will be enhanced through weekly vocabulary acquisition, formative projects, and progressing through the *Explication de Texte*. **Prerequisite: Successful completion of ENGL 101 or ENGL 101 Honors** 

## ENGL 201H--World Literature Honors (1 credit) -- Year: 10

Honors World Literature, the honors-level course of English II, focuses on different pieces of literature and different lenses found throughout the world. Through the exploration and analysis of short stories, poetry, drama, novels, and nonfiction texts, students will study literature from various regions around the world. Texts may include works from the following authors: Yamile Saied Méndez, Art Spiegelman, James Joyce, D. H. Lawrence, Amy Tan, Jennifer Nansugba Makumbi, and Leslie Marmon Silko. Writing and reading comprehension skills will be enhanced through weekly vocabulary acquisition, formative projects, and progressing through the *Explication de Texte*.. A high-level of proficiency in writing and reading skills are expected for this course. **Prerequisite: 90% average from ENGL 101, 85% average from ENGL 101 Honors, and teacher recommendation**.

### ENGL 301--American Literature (1 credit) -- Year: 11 Required

Juniors will explore the major genres and significant periods of literary development in this traditional survey of American literature. Through their reading of representative works of fiction and non-fiction from each era, students will gain a comprehensive overview of the issues and ideas that have shaped our national literature. Selections may include works from the following authors: Walt Whitman, Langston Hughes, Hans Christian Anderson, Edgar A. Poe, Charlotte Perkins Gillman, F. Scott Fitzgerald, Lorraine Hansberry, James Baldwin, Flannery O'Connor, and Joyce Carol Oates. In addition, students will develop and refine their critical reading and literary analysis skills through both traditional essays and informal in-class writing opportunities. The acquisition of these skills, combined with systematic vocabulary instruction, will prepare students for the SAT and ACT college admissions tests.

### Prerequisite: Successful completion of ENGL 201 or ENGL 201 Honors

## ENGL 301H--American Literature Honors (1 credit) -- Year: 11, 12

In this course, juniors will learn the fundamentals of rhetoric, close reading, argument, and synthesis in this examination of American literature. They will grasp the rhetorical concepts and apply them to both written and visual texts. Students will learn about the analysis of diction and syntax with an emphasis on their literary effects. In addition, students will be introduced to the essential language of argument: claims, evidence, fallacies, and arrangement. Students will use this language to explore ideas, craft arguable claims, develop evidence, and construct persuasive essays. Finally, students will understand the effective synthesis of multiple sources in developing an informed argument. We will explore these four areas of focus using the works of classic American writers. Selections may include works from the following authors: Walt Whitman, Langston Hughes, Hans Christian Anderson, Edgar A. Poe, Charlotte Perkins Gillman, F. Scott Fitzgerald, Lorraine Hansberry, James Baldwin, Flannery O'Connor, and Joyce Carol Oates. In addition, students will develop and refine their critical reading and literary analysis skills through both traditional essays and informal in-class writing opportunities. The acquisition of these skills, combined with systematic vocabulary instruction, will prepare students for the AP Language and Composition exam and the SAT and ACT college admissions tests.

Prerequisite: 90% average from ENGL 201, 85% average from ENGL 201 Honors, and teacher recommendation.

## ENGL 401- Literature & Composition (1 credit) -- Year: 12 Required

This course focuses on the great English poets, Shakespeare, and the rise and development of the English language from literary and historical perspectives. Students will read excerpts from *The Dream of the Rood, The Canterbury Tales, Sir Gawain and the Green Knight,* selections from Arthurian legend, Elizabethan sonnets, Shakespeare's *A Midsummer Night's Dream,* various poems from the Romantics, and moving into various texts from the modern era. Formal essays, in-class writings, quizzes, tests, and projects will provide students with a strong and deep foundation from which to address the various kinds of reading, thinking, and writing challenges they will meet during their freshman year in college.

## Prerequisite: 90% average from ENGL 301, 85% average from ENGL 301 Honors, and teacher recommendation.

## ENGL 401H-- Advanced Literature & Composition Honors (1 credit) -- Year: 12

This course focuses on the great English poets, Shakespeare, and the rise and development of the English language from literary and historical perspectives. Students will read excerpts from *The Dream of the Rood, The Canterbury Tales, Sir Gawain and the Green Knight,* selections from Arthurian legend, Elizabethan sonnets, Shakespeare's *A Midsummer Night's Dream,* various poems from the Romantics, and moving into various texts from the modern era. Formal essays, in-class writings, quizzes, tests, and projects will provide students with a strong and deep foundation from which to address the various kinds of reading, thinking, and writing challenges they will meet during their freshman year in college.

Prerequisite: 90% average from ENGL 301, 85% average from ENGL 301 Honors, and teacher recommendation.

## ENGL 501- AP Literature and Composition (1 credit) -- Year: 12

The AP English Literature and Composition course focuses on reading, analyzing, and writing about imaginative literature (fiction, poetry, drama) from various periods. Students engage in close reading and critical analysis of imaginative literature to deepen their understanding of the ways writers use language to provide both meaning and pleasure. As they read, students consider a work's structure, style, and themes, as well as its use of figurative language, imagery, and symbolism. Writing assignments include expository, analytical, and argumentative essays that require students to analyze and interpret literary works. **Prerequisite: Teacher Recommendation** 



# **SOCIAL STUDIES**

**Requirements** – All students are required to take and receive a passing grade in U.S. History, U.S. Government, and World History. Students in grades 10-12 may take AP Government to fulfill the Government requirement if not previously met or for enrichment as an elective.

## SS 101--U.S. History (1 Credit) -- Year: 9 Required

Beginning with a focus on the creation of the American republic, students will explore the development of American government, economy, and society. This course will examine the turning points in modern American history, with an emphasis on the role of the United States on the world stage as well as the changes in American culture since WWII. As a foundational course, U.S. History will build reading and writing skills, as well as include simulations, debates, and projects.

## SS 101H-- U.S. History H (1 Credit) -- Year: 9

Beginning with a focus on the creation of the American republic, students will explore the development of American government, economy, and society. This course will analyze the turning points in modern American history, culminating in an examination of challenges of balancing security while preserving the founding ideals. As an honors course, U.S. History Honors requires intensive reading, including primary sources, participation in seminar-style discussions, and rigorous writing assignments.

**Prerequisites:** For incoming freshmen requesting Honors placement, available test scores, such as the HSPT or PARCC, will be reviewed. Teacher recommendation from the prior school also may be provided in cases where test scores are not indicative of the student's performance.

### SS 201--U. S. Government & Politics (1 Credit) -- Year: 10 Required

This survey course addresses the functions of local, state and federal government in the United States and the role of citizen participation in each. This course also includes the basic provisions and principles of the Constitution and its growth through amendments. Legislative and executive roles and Supreme Court decisions are researched and discussed, as well as conservative and liberal views of the role of the government in the economy. The function of political parties, responsibilities of citizens, and political behavior are also examined in this course. Various enrichment materials, such as historical documents, newspapers, and current event reports, enable the student to understand how our government continues to develop.

## SS 201H--U. S. Government & Politics H (1 Credit) -- Year: 10

This survey course addresses the functions of local, state and federal government in the United States and the role of citizen participation in each. Students will explore separation of powers, federalism, significant Supreme Court decisions, checks & balances, voter behavior, grassroots movements, and the role of the media in politics. As an Honors course, students will work with primary & secondary sources, taking into account a diversity of perspectives.

Prerequisite: Teacher recommendation is required for placement.

#### SS 301--World History (1 Credit) -- Year: 11 Required

Through this course, students will learn about civics, geography, economics, history, and people of the world using disciplinary literacy skills and processes that will help evaluate a variety of source materials across disciplines. Students' understanding of world history will be focused on the period starting approximately in 1300 to the present. Key themes will include colonization, industrialization, imperialism, and globalization in addition to as well as discussions on national revolutions and major world wars. By tracking various trends and key ideas throughout the course, students will better understand how societies have developed throughout history and how this impacts our lives today. As a foundational course, World History CP will build reading, writing, and geography skills, as well as include simulations, debates, and projects.

### SS 301H--World History H (1 Credit) -- Year: 11

Through this course, students will learn about civics, geography, economics, history, and people of the world using disciplinary literacy skills and processes that will help evaluate a variety of source materials across disciplines. Students' understanding of world history will be focused on the period starting approximately in 1300 to the present. Key themes will include colonization, industrialization, imperialism, and globalization in addition to as well as discussions on national revolutions and major world wars. By tracking various trends and key ideas throughout the course, students will better understand how societies have developed throughout history and how this impacts our lives today. As an honors level course, students will work with primary and secondary sources in order to analyze historical evidence and historical interpretation, and develop the ability to express historical understanding in writing. **Prerequisite:** Teacher recommendation is required for placement.

### SS 408 -- Civil War H (.5 Credit) -- Year: 11, 12 Elective

U.S. Wars and Military Conflicts courses focus on the study of one or more wars and major military conflicts in which the United States had a significant role. In this case, the topic is the U.S. Civil War. This course concentrates on one of many topics related to The Civil War, including the causes; social, political, and economic effects. The honors level provides expectations and opportunities for students to work independently, at an accelerated pace, to engage in more rigorous and complex content, and to develop projects and products that reflect that level of understanding. Instruction in honors classes is at a rigorous pre-Advanced Placement level. Students will be expect to complete challenging assignments above grade level, both in and out of class

### SS 501–AP US Government (1 Credit) – Year: 10, 11, 12

The Advanced Placement U.S. Government and Politics course is an introductory college-level course in U.S. government and politics. Students cultivate their understanding of U.S. government and politics through analysis of data and text- based sources as they explore topics like constitutionalism, liberty and order, civic participation in a representative democracy, competing policy-making interests, and methods of political analysis.

Prerequisite: Teacher recommendation.

#### SS 503- AP Psychology (1 Credit) - Year: 11, 12

The Advanced Placement Psychology course is designed to introduce students to the systematic and scientific study of the behavior and mental processes of human beings and other animals. Students are exposed to the psychological facts, principles, and phenomena associated with each of the major subfields within psychology. They also learn about the ethics and methods psychologists use in their science and practice. The Advanced Placement Psychology course will offer students the opportunities to learn about the explorations and discoveries made by psychologists over the past century. Students will get the chance to assess some of the differing approaches adopted by psychologists, including biological, behavioral, cognitive, humanistic, psychodynamic, and sociocultural perspectives. Students will also learn the basic skills of psychology research and develop critical thinking skills. **Prerequisite: Teacher approval** 



# WORLD LANGUAGES

**Requirements** – At least two high school credits in foreign language are required of all students, in the same language. **Electives in Foreign Language** – Third level courses are available in French Spanish. These are Honors courses and prepare students for course placement at institutions of higher learning. Students who have had French or Spanish in eighth grade as a sequential (not an exploratory) course may be placed in a level II course. Level IV courses may be available as a Dual Enrollment option.

## WLAN 102--French I (1 Credit) -- Year: 9, 10, 11, 12

In French I students are introduced to the language and cultures of French speaking countries. Students will gain a basic understanding of reading, writing, speaking and understanding the language at a beginner's level.

## WLAN 101--Spanish I (1 Credit) -- Year: 9, 10, 11, 12

Spanish I is designed to develop an authentic and practical understanding of the Spanish language and culture. Students will learn to express their thoughts, feelings, and opinions in Spanish using basic, real-life situations and learning scenarios.

## WLAN 201--Spanish II (1 Credit) -- Year: 9, 10, 11, 12

In this course, students will build upon the foundation developed in Spanish I. They continue to build vocabulary, learn new verb tenses and grammar concepts, and improve their ability to communicate with others. <u>Prerequisite: Spanish I</u>

## WLAN 301H-- Spanish III H (1 Credit) -- Year: 10, 11, 12

In this course, students will build upon the concepts developed in Spanish II. Students focus on applying vocabulary in a wider array of situations by learning about the past progressive and subjunctive moods and the present perfect, future and conditional tenses.

Prerequisite: Spanish II

# MATHEMATICS

**Requirements** – A mathematics credit is required each year (minimum of 4) for graduation. Algebra I, Geometry, and Algebra II are mandatory for graduation. During the Senior year a course that is Algebra II or higher is required. All students must have a TI-84 calculator for all math courses.

## MATH 101--Algebra I (1 Credit) Year: 9 Required

This course is designed to enrich students' comprehension of algebra emphasizing modeling through real-world applications. Topics include equations, inequalities, exponents, graphing, roots and radicals, and quadratic equations. Upon completion of this course, students should be prepared for success in Geometry and beyond.

## MATH 101--Algebra I H (1 Credit) Year: 9

This course is designed to enrich students' comprehension of algebra emphasizing modeling through real-world applications. Units will be enriched through mathematical extensions. Topics include equations, inequalities, exponents, graphing, roots and radicals, quadratic equations, and rational functions. Upon completion of this course, students should be prepared for success in Geometry and beyond. <u>Prerequisite: Placement test and teacher</u> <u>recommendation</u>

## MATH 201--Geometry (1 Credit) -- Year: 9, 10 Required

This course is designed for students who have successfully completed Algebra I. Its concentration is on relationships among geometric figures and the use of mathematical observation and reasoning. Topics include triangle relationships, congruency, similarity, parallel lines, properties of quadrilaterals, angles and circles, and right triangle trigonometry.

## MATH 201H--Geometry H (1 Credit) -- Year: 9, 10

This course is designed to show the structure of a mathematical system, to use logical reasoning and to provide an excellent background for further mathematical studies. Topics included are inductive reasoning, deduction and proof, parallels and perpendiculars, congruent triangles, circles, angles, construction, coordinate Geometry, area and volume, and right-triangle trigonometry.

**<u>Prerequisite</u>**: Successful completion of Algebra I and the recommendation of the instructor. Incoming freshmen who successfully pass the Algebra I placement test with a score of 80% or higher may be placed into Geometry Honors.

## MATH 301--Algebra II (1 Credit) -- Year: 10, 11, 12 Required

This course emphasizes problem solving, reasoning, discovery and the use of technology. Topics covered include matrices, functions, quadratics, polynomials, rational expressions, irrational and complex numbers, exponential and logarithmic functions, probability, statistics, and trigonometry.

**Prerequisite:** Successful completion of Algebra I and Geometry and the recommendation of the instructor.

## MATH 303 - Algebra IIB (1 Credit) - Year: 10, 11

This course covers topics typically covered in the second semester of Algebra II through problem solving, reasoning, discovery and the use of technology. Topics include exponential and logarithmic functions, rational functions, sequences and series, probability, and trigonometry. **Prerequisite: Algebra I and Algebra IIA** 

## MATH 301H--Algebra II H (1 Credit) -- Year: 10, 11 Elective

This course is designed to provide an excellent background for students who wish to take Pre-Calculus and Calculus. This course emphasizes problem solving, reasoning, discovery and the use of technology. Topics covered include matrices, functions, quadratics, polynomials, rational expressions, irrational and complex numbers, exponential and logarithmic functions, and Trigonometry.

Prerequisite: Successful completion of Algebra I and the recommendation of the instructor.

#### MATH 306 -- Transition Math (1 Credit) -- Year: 11,12

The Math Transition course is a year-long mathematics course designed to hone skills developed in Algebra II, develop skills for PreCalculus, and strengthen underlying skills necessary with graphing, evaluating, and interpreting functions. Students will review and build upon algebra concepts beginning with linear, quadratic, and exponential functions and extend through rational and radical functions. This course does meet the requirements for a fourth course for USMD completer. **Prerequisite:** Earned credit in Algebra II.

### MATH 401--Pre-Calculus (1 Credit) -- Year: 11, 12

Topics include functions and their graphs, trigonometric and circular functions, polar coordinates, vectors and their applications, determinants, sequences and series, exponential and logarithmic functions, conic sections, statistics and probability, and limits.

Prerequisite: Successful completion of Algebra II.

#### MATH 401H--Pre-Calculus H (1 Credit) -- Year: 11, 12

This course provides a firm background for Calculus. Topics include functions and their graphs, trigonometric and circular functions, polar coordinates, vectors and their applications, determinants, sequences and series, exponential and logarithmic functions, conic sections, statistics and probability, and limits. In the honors level course a deeper exploration of these topics will be explored.

Prerequisite: Successful completion of Algebra II.

#### MATH 402H--College Statistics H (1 Credit) -- Year: 11, 12

This class is a Dual Enrollment course. We cover the topics covered in Introduction to Statistics at the college level. These include: descriptive statistics, basic probability, binomial and normal distributions, confidence intervals, one and two sample hypothesis testing, and regression analysis. This class is required for graduation starting in 2023. It can be taken junior or senior year. Strong recommendation to complete sophomore or junior year prior to SAT testing. **Prerequisites:** Completion of Algebra I, Geometry, and Algebra II.

#### MATH 403 Probability and Statistics (1 Credit) -- Year: 11, 12

This course is a practical hands-on approach to the study of statistics and probability. Topics include the use of graphs such as histograms, stem plots, time plots, and scatter plots to display data; using numbers such as median, mean, and standard deviation to describe data; and evaluating data distribution. Students examine relationships using correlations and least square regressions. They calculate the probability of simple and compound events. Students learn to estimate with confidence, explore tests of significance, and evaluate the validity of statistics contained within published reports.

#### **Calculus I and II**

Both Calculus I and Calculus II are available as dual enrollment courses.

## SCIENCE

Students are required to take a minimum of three credits in science. One credit must be in a Life Science, one in a Physical Science, and one in an Earth/Space Science.

## SCI 102-- Earth and Space Science (1 Credit) Year: 10 Required

Earth and Space Science is an introduction to Earth's Role in the Solar System, and the various systems that make up the inner workings of our planet. Topics of meteorology, astronomy, climatology, oceanography, mineralogy, geology, and biogeochemistry are included throughout the course.

## SCI 102H-- Earth and Space Science H (1 Credit ) Year: 10

Honors Earth and Space Science is a challenging course that focuses on the various systems whose interactions are responsible for the working of planet Earth. Topics include meteorology, climatology, oceanography, mineralogy, astronomy, geology, geomorphology, and volcanism. This course places emphasis on earth science phenomena using textbooks, maps, classroom activities, and laboratory experiences and field trips. Instruction in honors classes is at a rigorous level. Students will be expected to complete challenging assignments above grade level, both in and out of class.

## SCI 201--Biology (1 Credit) -- Year: 9 Required

In this course, the students are on a journey through time in which they learn about the origins and evolution of life. Students are taught how to see the world from an ecological microscopic perspective. The structure and processes of animal and plant cellular biology are investigated and learned. Students are given the opportunity to study the processes and patterns of inheritance. Also throughout the year students learn about the historical development of biology including taxonomy, ecology and environmental science. Finally students are given the opportunity to apply the concepts they have learned through laboratory learning or projects. Basic writing skills are essential.

## SCI 201H--Biology H (1 Credit) -- Year: 9

This course is designed for highly motivated students with an aptitude in science and math and is considered a pre-AP Biology course. In addition to what is taught in Biology CP other topics that are presented to the students include biochemistry, a more detailed study of cell biology, energetics, genetics, ecology, environmental science, evolution, human anatomy & physiology. The course includes appropriate lab work and application of the scientific method. Writing skills are essential. <u>Prerequisite: Teacher recommendation.</u>

## SCI 301-- Chemistry (1 Credit) Year: 11 Required

This course is designed for students who seek a general knowledge of chemistry. This course includes study of the periodic table, atomic structure, chemical bonding, stoichiometry, and gas laws. Lab work is integral to the course. **Prerequisite:** Successful completion of Algebra I and Biology.

## SCI 301H-- Chemistry H (1 Credit) Year: 11

This course is designed for students who build a general knowledge of chemistry. This course includes study of the periodic table, atomic structure, chemical bonding, stoichiometry, and gas laws. Lab work is integral to the course. Instruction in honors classes is at a rigorous STEM course. Students will be expected to complete challenging assignments above grade level, both in and out of class. **Prerequisite**: Successful completion of Algebra I and Biology.

## SCI 404-- Intro to Anatomy and Physiology (.5 Credit ) Year: 11, 12 Elective

Students will use an investigative approach to develop an understanding of the basic structure and function of the human body. Using a combination of lecture, laboratory, research and field trips. This course is designed for those students considering a career in allied health fields.

Prerequisite: Biology or Honors Biology, Honors Chemistry and completion or concurrent enrollment in Algebra II

## SCI 402H-- Physics H (1 Credit ) Year: 12 Elective

Honors Physics is a challenging lab-based course in the study of energy and its interaction with matter. The following aspects of physics are covered: mechanics: motion, forces, work, heat and sound; electricity and electronics: electric forces and fields, magnetic forces and fields, alternating and direct current, circuits; optics: electromagnetic radiation and wave nature; and atomic physics: atomic structure and nuclear forces. Instruction in honors classes is at a rigorous. Students will be expected to complete challenging assignments above grade level, both in and out of class.

Prerequisite: Biology and Chemistry. Teacher recommendation needed.

## SCI 503-- AP Physics C (1 Credit ) Year: 12 Elective

AP Physics C: Mechanics is a one-semester, calculus-based, college-level physics course, especially appropriate for students planning to specialize or major in one of the physical sciences or engineering. Students cultivate their understanding of physics through classroom study and activities as well as hands-on laboratory work as they explore concepts like change, force interactions, fields, and conservation.



## **FINE ARTS**

### ARTS 101- Introduction to Art (.5 Credit) -- Year: 10, 11, 12 Elective

This introductory studio course is a semester long course that will introduce foundational art content including the elements of art and principles of design. Students will engage in projects exploring various art mediums while learning techniques, collaborative critique, and art historical reference.

#### ARTS 204-- Intro to Theater Production (.5 Credit) -- Year: 10, 11, 12 Elective

This course is a semester-long course that will introduce students to fundamental stage practices and etiquette with a focus on performance styles and techniques as it pertains to the theater. Students will participate in a variety of performance based projects including both solo and ensemble work.

#### ARTS 301--Drawing Studio (.5 Credit) -- Year: 10, 11,12 Elective

This studio course is a semester-long course that will focus on traditional drawing mediums. Students will refine techniques while expanding upon their understanding of the elements of art and principles of design. Students will develop a portfolio of work during this course.

Prerequisite: Intro to Art

#### ARTS 310-- Yearbook (.5 Credit) -- Year: 10, 11, 12

This course is designed to develop students' skills in digital/print media production as it applies to the sole completion of a large finished product, St. Maria Goretti High School's yearbook. Students learn basic principles of print media publishing and develop skills that include writing copy, captions and headlines; digital photography; desktop publishing and using appropriate technology tools for media production.

### ARTS 311 -- Graphic Design (.5 Credit) -- Year: 10, 11, 12 Elective

This course focuses on the procedures commonly used in the graphic communication and design industries. Students will gain experience in creative problem solving and the practical implementation of those solutions across multiple areas of graphic communication.



#### ARTS 103-- Music Appreciation (.5 Credit) -- Year: 10, 11, 12 Elective

This course is intended for students with little to no music background. It introduces the study of music including a mix of styles and genres from ancient history to the present. Students will learn basic music notation, harmony, rhythm, form and meter. Students will develop the ability to analyze music and effectively communicate musical expression within all genres.

### ARTS 202--Vocal Ensemble CP (.5 Credit) -- Year: 10, 11, 12 Elective

This is an instructional course that promotes lifelong performance skills. In this course, major emphasis is on vocal development and music comprehension and study of a variety of choral repertoire. Students perform regularly at Mass, as well as winter and spring concerts and events. This course may require additional rehearsals (after school and weekend). **Prerequisite:** Introduction to Music Course, or participation in middle school chorus or an audition.

### ARTS 204--Music Theory CP (.5 Credit) -- Year: 10, 11, 12 Elective

In this course, students will implement higher-level musical language and grammar skills including musical notation, harmonic analysis, and part writing which will lead to a thorough understanding of music composition and music theory. Students will obtain and practice ear training skills and skills required for sight reading musical literature. They will recognize the development of music from an historical and cultural perspective and extend musical awareness beyond music currently familiar to the student. **Prerequisite:** Music Appreciation or permission from instructor.

### ARTS 205-- Ukulele (.5 Credit) -- Year: 10, 11, 12

The ukulele provides an affordable, accessible way for students to learn the fundamentals of music through fun, engaging, performance-based activities. Each student will realize that they can be a ukulele player. This course serves as an introduction to the instrument and will provide students with instant access to making music on the ukulele. Focus points will be strumming and rhythms, reading music, improvising, and beginning songwriting. No previous ukulele playing experience is required.





# TECHNOLOGY

## Requirement: Students must take one full credit of a technology course to meet graduation requirements.

## TECH 102-- Basic Computer Applications (.5 Credit) -- Year: 9 Required

The goal of the course is to provide the student with skills, support, and practice necessary to become computer literate. The specific skills and competencies required to master programs in Google Apps. Digital citizenship will be a main focus of this course.

## TECH 202-- Advanced Computer Application (.5 Credit) -- Year: 10, 11 Elective

The goal of this course is to provide students with advanced competencies and integrate all Google Apps together. Keyboarding skills will also be a focus of this course.

## TECH 301 – Computer Science Principles (.5 Credit) – Year: 10, 11, 12 Elective

Computer Science Principles introduces students to the foundational concepts of computer science and challenges them to explore how computing and technology can impact the world. More than a traditional introduction to programming, it is a rigorous, engaging, and approachable curriculum that explores many of the foundational ideas of computing so all students understand how these concepts are transforming the world we live in.



# HEALTH AND PHYSICAL EDUCATION

## PHED 101-- Personal Health (.5 Credit) -- Year: 10, 11 Required

This course covers content regarding personal health (nutrition, mental health and stress management, drug/alcohol abuse prevention, disease prevention, and first aid), and consumer health issues. The courses may also include brief studies of environmental health and personal development and/or community resources.

### PHED 102 -- Health: Life Skills (.5 Credit) -- Year: 10 or 11 Required

Life skills includes the topics of human growth and development, interpersonal relationships, and career choices. A financial literacy component includes consumer decision-making, financial awareness, saving and investments, and loan and debt management.

### PHED 203 - Lifetime Sports and Fitness - Year: 9 Required

This course is designed to provide students with experiences that they can use as lifetime recreational activities and as a continuing fitness program. The course allows students to experience lifetime activities and team sports, while incorporating fitness elements into class period.



