

# Madonna High School



**Curriculum Guide  
2020-2021**

# TABLE OF CONTENTS

<b>Guidelines for Registration</b>	<b>3</b>
Graduation Requirements: 2020-2021	3
Grading System	3
Calculation of Semester Grades	4
Faculty & Administrative Suggestions	4
College Bound Students	4
<b>Year by Year Suggested Outline</b>	<b>5</b>
<b>Honors Program</b>	<b>6</b>
Criteria to Obtain an Honors Credit	6
Criteria to Graduate with Honors	6
Criteria to Graduate with Distinguished Honors	6
<b>Prefect System</b>	<b>7</b>
<b>Course Descriptions – Department Objectives</b>	<b>8</b>
Religion	8
Mathematics	10
Physical Education	12
Foreign Language	13
Social Sciences	14
Science	16
English	19
Technology	21
Fine Arts	22
<b>Electives</b>	<b>23</b>
<b>MOOCs</b>	<b>26</b>
<b>WVNCC College Classes</b>	<b>27</b>
Clubs/Organizations	29
Athletics	29
Special Events/Features	30

## Guidelines for Registration

This handbook is a useful instrument in preparing your educational and extra-curricular objectives.

**READ CAREFULLY!** Study the requirements. Know the prerequisites for certain courses. Discuss your choices carefully with the faculty, guidance counselor, and parents before making your final selection.

### Graduation Requirements: 2020-2021

Language Arts	4 Credits
Mathematics	4 Credits
Science	4 Credits
Social Studies	4 Credits
Religion/Service*	4 Credits
Physical Education	1 Credit
Health	1 Credit
Computer Applications	.5 Credit
Communications	.5 Credit
Fine Arts	1 Credit
Electives	5 Credits

**TOTAL FOR GRADUATION: 29 Credits**

*The Religion requirements may not be waived for non-Catholic students. The concept of a Catholic school is to foster Christian Doctrine. All students at Madonna will take the required Religion courses for graduation.*

### Grading System

*The following is the Madonna High School Grading System:*

A=4	B=3	C=2	D=1	F=0
93-100	85-92	77-84	69-76	68 and Below

#### *Honors:*

A=4.5	B=3.5	C=2.5	D=1.5	F=0
93-100	85-9	77-84	69-76	68 and Below

#### *AP/College:*

A=5	B=4	C=3	D=2	F=0
90-100	80-89	70-79	60-69	59 and Below

## Calculation of Semester Grades

A student's semester grade consists of three components. The first semester grade is 40% of the 1st quarter grade, 40% of the 2nd quarter grade, and 20% of the midterm exam grade. The second semester grade would then be 40% of the 3rd quarter grade, 40% of the 4th quarter grade, and 20% of the final exam grade. For example, if a student obtained a 93% the 1st quarter, a 95% the 2nd quarter, and an 85% on the exam, one would calculate the semester grade as follows:

$$93 \times 0.40 = 37.2$$

$$95 \times 0.40 = 38$$

$$85 \times 0.20 = 17$$

$$37.2 + 38 + 17 = 92.2 \% \text{ B}$$

Percentages ending in .5 or greater are rounded up. Anything below a .5 is not.

## Faculty & Administrative Suggestions

**Read the following information carefully before filling in your schedule. It is of particular importance that you pay attention to the prerequisites and requirements needed in order to register for a course.**

*All students at Madonna will be enrolled in eight classes during each academic year.*

## College Bound Students

All students must register for a minimum of 4 years of math and science courses. Concentration on oral communication and written clarity, punctuation and style are also of utmost importance in communicating ideas. Most colleges and universities also require a minimum of two foreign language classes.

# Year by Year Suggested Outline

The following is a list of courses required for all students. (Including electives, a minimum of 8 credits must be taken each year.)

<b><u>Freshman Year Requirements &amp; Suggestions</u></b>	<b><u>Credits</u></b>
English	1
Religion/Plus Service*	1
World Cultures	1
Physical Science	1
Mathematics	1
Foreign Language	1
Intro to Computer Science/Communication	1
Physical Education	1
<b><u>Sophomore Year Requirements &amp; Suggestions</u></b>	
English	1
Religion/Plus Service*	1
United States History 1400-1900	1
Biology	1
Mathematics	1
Foreign Language	1
Health	1
Elective	1
<b><u>Junior Year Requirements &amp; Suggestions</u></b>	
English	1
Religion/Plus Service*	1
20 <sup>th</sup> Century America 1900-Present	1
Mathematics	1
Science	1
Elective	1
Elective	1
Elective	1
<b><u>Senior Year Requirements &amp; Suggestions</u></b>	
English	1
Religion/Plus Service*	1
Civics	1
Math	1
Science	1
Elective	1
Elective	1
Elective	1

# Honors Program

Based upon grades and faculty recommendation the students of Madonna High School may take honors courses to further enhance their education. These courses are designed by the faculty to provide an in-depth analysis and study of additional topics within the curriculum. Students that successfully complete 10 honors courses **may** be eligible to graduate with honors. The student's diploma and transcript will note that the student did complete the requirements of the honors program. In addition, at Commencement, the student will wear a gold honor hood with the Madonna cap and gown.

**Beginning with the class of 2022 you will need to complete 14 honor courses to graduate with Honors and 19 honors courses to graduate with Distinguished Honors.**

## Criteria to Obtain an Honors Credit

- Students must have a grade of “A” or “B” in the regular coursework to be eligible for an honors class
- Students must complete all honors assignments in a timely fashion and according to the criteria established by the faculty.
- Students must maintain a grade of “A” or “B” in the honors portion of the course.
- If the student does not meet the above criteria, the course will be listed as “honors” on their transcript, but will not count toward the total number needed to graduate “With Honors”.

## Criteria to Graduate with Honors

- Students must have an overall GPA of 3.0 or higher in all courses.
- Students must have earned 10 honors credits. If the student earns a grade of “C” or lower in an honors course, that course will not count toward the total needed to graduate “With Honors”.
- Transfer students may transfer a maximum of 3 honors courses to Madonna, at the discretion of the administration.

## Criteria to Graduate with Distinguished Honors

- Students must have an overall GPA of 4.0 or higher in all courses
- Students must have earned a minimum of 12 honors credits with no grade below a “B” to be considered for “Distinguished Honors”.
- “Distinguished Honors” students will be recognized at graduation by wearing a gold hood with 2 stars.

## Prefect System

Beginning with the class of 2021, prefect selection is based on grade point average, attendance, service, participation in clubs, activities and athletics. The student will be driven, inspired, determined, dedicated, energetic, dynamic, and reliable.

### Class of 2021

- Service Hours > 75
- Lettered in athletics twice
- GPA > 3.75
- Actively participate in 1 club with letter of recommendation from sponsor on significant contribution toward the club
- Essay on topic selected by Administration (i.e.; Benefits of a Catholic education)
- Take 1 AP Class

### Class of 2022 (same as class of 2021 except)

- Service Hours > 100
- 1 service/leadership camp/event from approved Madonna list
- Take at least 1 AP Class with an “A” in the class or a score of 3 or higher on AP exam

### Class of 2023 (same as class of 2022 except)

- Service Hours > 125
- Take 2 AP Classes with an “A” in both classes or a score of 3 or higher on one AP exam

### Class of 2024 (same as class of 2023 except)

- Service Hours > 150

***\*\*Service Hours must be approved by Madonna High School Administration to be considered toward valid count of necessary Prefect hours. Determination of candidates for Prefect recognition, based upon above requirements, will be made by Madonna High School Administration.***

# Course Descriptions – Department Objectives

## Religion

Students in the Madonna Community must understand that developing and nurturing a Christian environment and faith community is Madonna's #1 priority. Proclaiming Jesus Christ as Lord and Savior is the primary focus of the Theology Department. Obedience to Christ and His Church while calling forth young men and women to embrace their roles in the Church are the ways Madonna seeks to maintain this focus.

The following are the objectives of the Religion Department:

- To lead students to an awareness of Jesus Christ in their lives and in the world;
- To foster a prayerful community in each classroom and in the school;
- To enlighten the students to the spiritual and social mission which flows from the Gospel;
- To help the students develop a mature conscience in light of the Gospel; and
- To deepen students' awareness of their role and value in Christ's Body, the Church.

### **Christian Ministry and Service 9,10,11,12**

The Christian Ministry and Service aspect of the Religion Program will attempt to present the importance and place of Christian service in our Catholic tradition. The importance of a life of service in the Church and its people will be and practiced.

Four years of service are required to graduate and receive a diploma. The Religion Department must approve all service hours. Students should aim to complete annual requirements by the end of the third quarter each year. A written evaluation of the student's service will be required from those for whom the student performed the service, listing the experience and time log.

**\*The minimum number of hours of service required in each grade is as follows:**

<b>Senior Students</b>	<b>20 Hours</b>
<b>Junior Students</b>	<b>20 Hours</b>
<b>Sophomore Students</b>	<b>10 Hours</b>
<b>Freshman Students</b>	<b>10 Hours</b>

### **Senior Religion**

**1 Credit**

- **Life in Jesus Christ - Fall semester**

The purpose of this course is to help students understand that it is only through Christ that they can fully live out God's plans for their lives. Students are to learn the moral concepts and precepts that govern the lives of Christ's disciples.

- **Catholic Apologetics - Spring semester**

The purpose of this course is to help students understand the Catholic Faith and be able to explain the Faith to others. We will go through the hierarchy of truths and other fundamentals of the Catholic Faith to discover how they fit into God's salvific plan.



## **Junior Religion**

**1 Credit**

- **Sacraments as Privileged Encounters with Jesus Christ - Fall semester**

The purpose of this course is to help students understand that they can encounter Christ today in a full and real way in and through the sacraments, and especially through the Eucharist. Students will examine each of the sacraments in detail so as to learn how they may encounter Christ throughout life.

- **Jesus Christ's Mission Continues in the Church - Spring semester**

The purpose of this course is 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 that the Church is the living Body of Christ today. This Body has both divine and human elements. In this course, students will learn not so much about events in the life of the Church but about the sacred nature of the Church

## **Sophomore Religion**

**1 Credit**

- **The Mission of Jesus Christ (The Paschal Mystery) - Fall semester**

The purpose of this course is to help students understand all that God has done for us through his Son, Jesus Christ. Through this course of study, students will learn 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.

- **Theology of the Body - Spring semester**

The purpose of this course is to help students understand the Theology of the Body and the dignity of the human person. Students will examine Pope John Paul II's Theology of the Body in order to better understand the purpose of their bodies.

## **Freshman Religion**

**1 Credit**

- **The Revelation of Jesus Christ in Scripture - Fall semester**

The purpose of this course is to give students a general knowledge and appreciation of the 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.

- **Who is Jesus Christ - Spring semester**

The purpose of this course is to introduce students to the mystery of Jesus Christ, the living Word of God, the Second Person of the Blessed Trinity. In this course students will understand 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.

# Mathematics

At the foundation of man's communication with man is language. One of man's most important languages has beauty, capability, and utility for extreme precision and universality. This is mathematics. The objectives of the Mathematics Department are:

- to assist the student in obtaining knowledge and proficiency in those areas of mathematics which are necessary for certain fields of study;
- to show the creativity and inventiveness of the human mind in its nourishment of mathematics through the ages;
- to help the students see the wide range of applications for the limitations of mathematics in human activity;
- to help develop disciplined habits of the mind which are necessary for the interpretation of knowledge; and
- to help the student develop logical thinking and the ability to reason effectively.

## **Algebra I**

**1 Credit**

This course will give the student an understanding of the basic structure of algebra (real number system) and an application of algebraic concepts and skills. Topics include real numbers, sets, graphing, proofs, solving equations, inequalities, factoring, polynomials, functions, rational and irrational expressions, and quadratic equations. Scientific calculator is required, but a graphing calculator is acceptable.

## **Algebra II**

**1 Credit**

***Prerequisite: Completion of Algebra I and Geometry***

This course will review basic algebraic concepts encountered in Algebra 1 and further develop the topics of rational expressions and quadratic equations. Students will manipulate and compute with radical expressions and complex numbers. A Scientific calculator or graphing calculator is strongly recommended

## **Algebra II (Honors)**

**1 Credit**

***Prerequisite: "A" in Algebra I & Geometry Honors, Math Teacher's recommendation***

This course develops topics of rational expressions and quadratic equations. Students will compute with rational expressions, complex numbers, and exponential functions. A graphing calculator is strongly recommended

## **Integrated Math (Seniors)**

**1 Credit**

***Prerequisite: Completion of Algebra I, Algebra II, and Geometry***

A continuation of Algebra II. This course is for seniors only. It continues their study of quadratic equations and functions, complex numbers, polynomials and polynomial functions, radical functions and rational exponents. This course is designed for students who need more help in math. These skills provide the basis for students entering college who will be taking College Algebra as their first college mathematics course.

## **Geometry**

**1 Credit**

### ***Prerequisite: Algebra I***

This course will aid students in their ability to reason and think logically through the application of theorems and formulas in computing areas and volumes of plane figures. Students will learn and apply geometric and trigonometric terms and concepts. Scientific calculator is required, but a graphing calculator is acceptable.

## **Geometry (Honors)**

**1 Credit**

### ***Prerequisite: "A" in Algebra I, Teacher's recommendation***

This course will cover all that Geometry covers (see above) plus more advanced work in graphing, trigonometric concepts, and solid geometry. Scientific calculator is required, but a graphing calculator is acceptable.

## **Pre-Calculus with Trigonometry**

**1 Credit**

### ***Prerequisite: "B" or above in Algebra II and Math Teacher's recommendation***

This course will cover standard algebraic topics including algebraic, exponential, and trigonometric functions and their graphs. The Trigonometry portion of the class will use skills developed in Geometry to emphasize making connections between right triangle trigonometry and circular functions, working with angles in both degrees and radians. Emphasis placed on graphing trig functions, solving equations using trig identities, and solving problems using oblique triangles. The course will expand the study of geometry to include analytic geometry. This class will act as a prerequisite for Calculus.

## **Pre-Calculus/Trigonometry (Honors)**

**1 Credit**

### ***Prerequisite: "A" in Algebra II and Math Teacher's recommendation***

This course will cover all that Pre-calculus with Trigonometry covers (see above) plus more in depth focus on application problems as well as an introduction to early calculus concepts. This class will act as a prerequisite for Calculus. A graphing calculator is required

## **AP Calculus (Seniors)**

**1 Credit**

### ***Prerequisite: "A" or "B" in Honors Pre-Calculus or "A" in Pre-Calculus***

This course will cover continuity, limits, differential calculus and applications of derivatives, integration and its application to area, volume, and displacement. The Rule of Four will be applied throughout the course, which means students must be able to solve problems numerically, analytically, graphically and verbally. All students enrolled in this course must take the AP (Advanced Placement) exam in May. Results of the exam will not affect the grade earned in the course, but most universities will reward a passing score on that exam with college credit for Calculus. A TI-83 or 85 graphic calculator is required

## **Statistics (Seniors)**

**1 Credit**

### ***Prerequisite: "B" or above in Algebra II***

This course will include the study of statistics and probability. Students will be able to determine the probability of events, set up sample data, and determine appropriate conclusions. A scientific calculator or statistical calculator is required.

# **Physical Education**

Physical Education, like any other field, is a profession guided by principles based upon scientific facts and meeting the prevailing needs of society in the home, the school and the community. Physical education, properly conducted, can make contributions towards achieving the goals which no other subject or field can make, namely, physical development in addition to mental development and attitude formation.

## **Aim of Physical Education**

Physical education should aid in providing skilled leadership in adequate facilities. It will afford an opportunity to the individual or group to act in situations, which are physically wholesome, mentally stimulating, and socially sound.

## **Specific Objectives**

- to provide opportunities for controlled participation in physical activities that will result in educative experiences;
- to develop the organic system of the body so that each individual may live at the highest possible level;
- development of the neuromuscular system in general, and particularly in relation to control over certain fundamental skills; and
- development of standards of conduct.

## **Physical Education**

**1 Credit**

This class is designed to develop a wholesome attitude toward play, provide opportunities for play and relaxation, a sense of fairness and justice, and develop the rules and regulations of sports.

## **Health**

**1 Credit**

This program prepares students in Grade 10 to become wise health care consumers and responsible, productive citizens. The relationships among personal, community and world health and economic, cultural, sociological, biological, and environmental factors are examined in interdisciplinary discussions, debates, and class projects. Students examine personal health choices and the connection to the world of work and assumption of adult roles. In-depth analysis of current health issues and concepts coupled with school-wide opportunities that promote and reinforce the importance of good health and positive choices need to be coordinated to have the greatest impact on adolescent behavior. Instruction continues to focus on prevention of all risk behaviors; however, instruction must also emphasize limiting the negative consequences of high-risk behavior and promote values and norms that are appropriate to our students. Students should have a personal perception of risk, the ability to recognize and resist social pressures and the skills to build positive social relationships.

# Foreign Language

In this age of greater mobility and increasing international communication, the study of foreign languages has taken on more appeal as well as a new orientation; a greater emphasis is now given to the spoken language. In view of this, the language department strives to develop the student's ability;

- to understand the spoken language
- to speak the language with grammatical accuracy and with acceptable pronunciation and intonation;
- to read the newspapers, magazines and non-technical contemporary writing with comprehension
- to write correctly anything he/she can say; and
- to acquire sensitivity to the value system and behavior pattern of the people whose language he/she is studying.

## **Spanish I**

**1 Credit**

***Prerequisite: "C" in Grade 8 English***

A foundation course in Spanish using conversational approach through drill patterns accompanied by an adequate knowledge of vocabulary. Proper pronunciation and basic grammar is stressed through dialogues.

## **Spanish II**

**1 Credit**

***Prerequisite: Must pass Spanish I***

A continuation of basic dialog and grammar. Basic culture and civilization of Spanish speaking countries is introduced. Students will be able to organize conversations and carry on brief extemporaneous talks.

## **Spanish III**

**1 Credit**

***Prerequisite: "A" Average in Spanish II, Teacher recommendation***

This course covers advanced grammar, history and culture of the Spanish speaking world. Emphasis will be speaking, translation and a variety of interactive settings to explore the ability to put into practice the skills learned in Spanish 1 and Spanish 2.

## **Social Sciences**

Self-actualization, the right and duty of each individual, must encompass a growing sense of social realization. The individual discovers his/her being within the framework of the society, which he has helped to create. In order to possess himself/herself in true freedom, he/she needs an understanding of the forces, which have shaped him/her. Understanding, he/she is then best equipped to conserve, renovate, and/or innovate with the wisdom and compassion for the greater benefit of the community of man. In order to accomplish this, the student should be exposed to the historical, sociological, psychological, geographical, political and economic literature, and to become knowledgeable in the same.

- to equip the student with social inquiry and historical research
- to develop critical judgment relative to the period past and present; and
- to seek variable solutions to social problems through careful evaluation of all pertinent information

### **World Cultures**

**1 Credit**

World Cultures is a required freshman course. It is a study of the different cultural areas of the world with emphasis on the geographical, historical, and living habits of each region studied. Focus on comparing cultures of the past to the dynamic world of the present is the emphasis of the course.

### **US History 1400-1900**

**1 Credit**

*Prerequisite: World Cultures*

American History is a required sophomore course. The course consists of a chronological knowledge-based study of the people and events, which have shaped America's past toward exploration of the present.

### **Contemporary American History 1900-Present**

**1 Credit**

*Prerequisite: World Cultures and US History*

20<sup>th</sup> Century America is required for all juniors. This course consists of a chronological knowledge-based study of the people and events that have shaped America's past from 1900 to the present.

### **Civics**

**1 Credit**

*Prerequisite: World Cultures, US History and American History*

Emphasis is placed on a detailed study of the U.S. Constitution and relationship to functions of the legislative, executive, and judicial branches of the government. State and local governments, with their structures and responsibilities, are also studied. History, geography, economics, law & citizenship knowledge will also be covered in this course.

**AP Microeconomics (Junior or Senior)**

**1 Credit**

***Prerequisite: Strong math background***

This course explores the principles of economics that apply to the functions of individual decision makers, both consumers and producers, within an economic system. Students will learn about the nature and functions of product markets and factor markets and about the role of government in promoting greater efficiency and equity in the economy. Emphasis will be placed on using graphs, charts, and data to analyze, describe, and explain economic concepts. Students will be required to take the AP Microeconomics test in May for a fee specified by the AP Board. College credit will be granted if a passing score is received.

**AP Macroeconomics (Junior or Senior)**

**1 Credit**

***Prerequisite: Strong math background***

This course explores the principles of economics that apply to an economic system as a whole. Students will learn about concepts such as national income and price determination and gain familiarity with economic performance measures, the financial sector, stabilization policies, economic growth and international economics. Emphasis will be placed on using graphs, charts, and data to analyze, describe, and explain economic concepts. Students will be required to take the AP Macroeconomics test in May for a fee specified by the AP Board. College credit will be granted if a passing score is received.

***AP Microeconomics and AP Macroeconomics will not be taught during the same school year. The courses will alternate from year to year.***

# Science

Faced with technological achievements, the Science Department has important tasks:

- to develop in students the habit of observation with a recognition of important results
- to give through practice in the scientific method, i.e., acquiring concepts, comprehending general laws, reasoning from them and testing one's conclusions by experiment;
- to encourage and assist individual scientific exploration;
- to coordinate with the other departments so that the student may see other aspects of man and his destiny; and
- to emphasize the fundamental Christian values and the dignity of man in relation to increasing scientific knowledge.

## **Physical Science (Freshmen)**

**1 Credit**

Our society is becoming more aware of the interrelationship of the discipline of science. While there are many possible themes around which to unify science, this course involves four: Energy; Systems & Interactions; Scale & Structure; and Stability and Change. Major areas of study include an introduction to physics and chemistry. This course introduces the basic principles of chemistry and physics and is required for graduation. A calculator is required.

## **Biology (Sophomores)**

**1 Credit**

***Prerequisite: Physical Science***

This course is a study of the cell, genetics, evolution, and classification. Biology is the natural science that studies life and living organisms, including their physical structure, chemical processes, molecular interactions, physiological mechanisms, development and evolution.

## **Biology (Honors) (Sophomores)**

**1 Credit**

***Prerequisite: "A" in Physical Science, "B" or higher in Algebra I, Science Teacher***

***Recommendation***

Honors Biology is a more in depth version of the topics covered in regular Biology and is open only to selected students who have excelled in Physical Science (see prerequisites above).

## **Biology II (Honors) (Juniors and Seniors)**

**1 Credit**

***Prerequisite: Physical Science and a "B" or higher in Biology***

Biology II is a continuation of Biology with an emphasis on classification and comparative anatomy of all life forms.

## **Chemistry I**

**1 Credit**

***Prerequisite: Enrolled in or have completed Algebra II***

This course is built on topics integral to general chemistry. There will be coursework on matter, atomic structure, the periodic table and chemical formulas and reactions as well as instruction in dimensional analysis as a problem solving technique. The typical elements will be discussed as well as periodic trends and reaction tendencies. This course is essential to those students intending to study other scientific areas on the college level. The course will also include basic laboratory experiments and basic lab skills. *A scientific calculator is needed.*



**Chemistry I (Honors)****1 Credit**

***Prerequisite: Completed or enrolled in Honors Algebra II, Chemistry and Math teacher recommendations***

This class will cover concepts of Chemistry I (as stated above) and will include an advanced pace & advanced content.

**Chemistry II****1 Credit**

***Prerequisite: Must have completed Algebra II with a “B” or higher and Chemistry I***

Chemistry II will discuss molecular structure and polarity, kinetic theory and behavior of gases, liquids, and solids. Gas stoichiometry, reaction rates and equilibrium, oxidation-reduction, colligative properties and acids, bases and salts will be studied in depth. A basis for Organic Chemistry and its principles will be explored. Finally, electrolytic solutions and thermodynamics will be discussed. This course is strongly recommended for seniors intending to pursue in physical or biological sciences, nursing, medical careers, etc. This course will also include basic laboratory experiments.

**AP Chemistry****1 Credit**

***Prerequisite: An “A” in Honors Chemistry I and an “A” in Honors Algebra II with recommendation of the Chemistry Teacher***

The AP Chemistry course provides students with a college level foundation to support future advanced work in chemistry. Students cultivate their understanding of Chemistry through inquiry-based investigations, as they explore content areas such as: atomic structure, intermolecular forces and bonding, chemical reactions, kinetics, thermodynamics, equilibrium and acids and bases. The AP Chemistry course is designed to be the equivalent of the general chemistry course usually taken during the first year of college. This course requires that 25% of instructional time engages students in lab investigations.

**Human Anatomy & Physiology I (Juniors and Seniors)****1 Credit**

***Prerequisite: Integrated Science and Biology 10***

A detailed explanation of the structure and function of the human body beyond those already presented in the previous science courses. The course will familiarize students with the functions of their own bodies, and prepare those who are interested in further specialized work within the field. A study of human physiological terms, structures, and systems are included. Current topics, physical disorders, and diseases of the human body are used to supplement the lecture material. Several reports and/or project presentations are required. The course is designed to prepare juniors and seniors for college by developing their communicational and analytical skills.

**Human Anatomy & Physiology II (Seniors) 1 Credit**

***Prerequisite: Anatomy and Physiology I***

This course will be a continuation of A&P I with an emphasis on the structure and function of the human body beyond those already presented in the previous science courses. The emphasis in the lab is on the anatomy and dissection of an animal and of individual organs.

**Earth Science (Juniors and Seniors) 1 Credit**

The course content focuses on geology, weather, climatology, biogeochemical cycles and astronomy. Earth science includes all fields of natural science related to the planet Earth. This is a branch of science dealing with the physical and chemical constitution of the Earth and its atmosphere. Earth science can be considered to be a branch of planetary science, but with a much older history. Lab skills will be required in order to perform and analyze experiments.

**Physics (Honors) (Juniors and Seniors) 1 Credit**

***Prerequisite: Completed Honors Algebra II, Physical Science, Biology***

An advanced level course designed for junior and senior students who desire a broader, in-depth study of the content found in the science field of physics. As a college preparatory course, Physics is an advanced study of nature's universal laws. This course is designed to build upon and extend the Physics concepts, skills, and knowledge from the sophomore physical science program. The course emphasizes a mathematical approach to the areas of kinematics, dynamics, fluid mechanics, waves, light and optics, electricity and atomic physics. Students will engage in active inquiries, investigations, and hands-on activities to develop conceptual understanding.

**Environmental Science (Juniors and Seniors) 1 Credit**

***Prerequisite: Physical Science, Biology***

This course addresses the development, structure, function, and importance of ecosystems. The dynamics of populations and communities within these ecosystems is covered with an emphasis on sustainability and the present and future consequences of human activities.

**Organic Chemistry (Honors) (Juniors and Seniors) 1 Credit**

***Prerequisite: Physical Science, Biology***

Organic Chemistry is the study of compounds containing carbon. There are several million known organic compounds and the uses and occurrences of organic compounds are limitless.

This course will introduce the structure, nomenclature, physical properties, chemical properties, chemical reactions, sources and uses of organic compounds. Classes of organic compounds that will be studied include alkanes, alkenes, alkynes, aromatics, amines, aldehydes, ketones, carboxylic acids and their derivatives. Organic chemical reactions will be studied and lab experiments will be conducted that determine properties, preparation of various organic compounds such as aspirin and esters, and reactions of the various types of organic compounds. Completion of Chemistry I would also be valuable in understanding the chemical reactions.

# English

Each student has the responsibility to apply Christian principles to all aspects of his/her life. Since literature reflects the language of life, it should make the students more sensitive to the world in which they live. Keeping this in mind, the English Department has established the following objectives:

- to expose students to a broad variety of literary concepts and genres;
- to provide the students with an understanding of their language and literature through the study of grammar and usage, reading, written and oral communication, and receptive skills of listening; and
- to provide the students with the ability to be critical thinkers, discriminate readers, and logical, clear, and convincing communicators.

## **English 9**

**1 Credit**

All freshmen will be required to complete this course. Topics covered will include the following: reading, comprehension, vocabulary, grammar, usage, mechanics, mythology, essay writing, and short stories. Students will also be required to do one independent reading project.

## **English 9 (Honors)**

**1 Credit**

***Prerequisite: A score of 85% or above on the English Department Pre-Test***

This course is designed to challenge highly motivated freshmen who intend to continue taking English honors courses during their sophomore, junior, and senior years. In addition to fulfilling all of the readings, tasks and assignments required in English I, the students will complete an intensified course of study that focuses on furthering student proficiency in the areas of literary analysis, composition, and critical thinking.

## **Communications Freshmen (One Semester)**

**.5 Credit**

This is a required course for all freshmen. This course is designed to help students become more aware of the history of communication and how communication impacts our lives each day. Students will learn to speak and write Standard English with fluency and facility using proper grammar, punctuation, and spelling. They will write and orally present formal and informal exhibitions with clarity and proper form, and they will build upon their vocabulary skills.

**Text: Vocabulary for the College-Bound Student: Amsco School Publications, Inc., NY.**

## **English 10**

**1 Credit**

***Prerequisite: English 9***

In this required course, students will strengthen their writing skills by reviewing basic concepts of grammar, usage, mechanics, and style; and then apply these concepts to their writing assignments. The students will also develop vocabulary and reading comprehension skills through the study of various types of literature. In addition, students will be required to do two independent reading projects.

## **English 10 (Honors)**

**1 Credit**

***Prerequisite: A grade of "B" or above in Honors English 9 or an "A" in English 9***

This course is designed to challenge highly motivated sophomores who intend to continue taking English honors courses during their junior and senior years. In addition to fulfilling all of the readings, tasks and assignments required in English 10, the students will complete an intensified course of study that focuses on furthering student proficiency in the areas of literary analysis, composition, and critical thinking.

## **English 11**

**1 Credit**

***Prerequisite: English 10***

All juniors will be required to complete this course. Students will review the techniques needed to edit written work and apply these concepts to required writing assignments. Students will also continue to develop their reading comprehension and vocabulary skills through the studies of various types of literature. Finally, the students will be required to do two independent reading projects.

## **English 11 (Honors)**

**1 Credit**

***Prerequisite: A grade of "B" or above in Honors English 10 or an "A" in English 10***

This course is designed to challenge highly motivated juniors who intend to take college level English courses during their senior year. In addition to fulfilling all of the readings, tasks and assignments required in English 11, students will complete an intensified course of study that focuses on furthering student proficiency in the areas of literary analysis, composition, critical thinking, research writing, and the conventions of standard written English.

## **English 12**

**1 Credit**

***Prerequisite: English 11***

Seniors taking this course will review concepts of common errors in writing, accuracy and effectiveness in vocabulary, and reading comprehension. Students will be required to write an extensive research paper on a significant topic. Students will study various types of literature, with a particular focus on poetry. Finally, the students will be required to do two independent reading projects.

## **Technology**

### **Computer Applications Freshmen (One Semester)**

**.5 Credit**

This course will serve as the entry point and preparation for student participation in the Madonna High School one-to-one computer initiative. This course will provide students with care and operating instructions for their Chromebook and will also introduce students to effective computing with an emphasis on Google tools. This course is designed to teach the students the basics of the most often used computer applications in Google - Docs, Sheets, and Slides. Students will learn topics in each of these programs to provide them with the basic skills they will need throughout high school. Students will also develop Internet research and inquiry skills while developing awareness of privacy issues. Students will be required to use a Google Account for use with Gmail and Google Tools, which will be used as instructional and reporting tools within Madonna High School.

### **Computer Science 101 (Juniors and Seniors) Online**

**1 Credit**

This class aims to provide an overview of the many facets of Computer Science. Over the school year you will cover topics such as; history of technology, how computers work, programming, internet safety, internet citizenship. Also you will be learning about the technology that surrounds us every day, how it came to be, and where it might be going next. You will learn about our roles as Citizens of the Internet and the responsibilities that come with this power. Finally, students will discover career opportunities in the growing field of Computer Science.

## **Fine Arts**

Art is the product or process of deliberately arranging items in a way that influences and affects one or more of the senses, emotions, and intellect. It encompasses a diverse range of human activities, creations, and modes of expression, including architecture, design, music, literature, film, photography, sculpture, and painting. The meaning of art is explored in a branch of philosophy known as aesthetics, whereas disciplines such as anthropology, sociology and psychology analyze its relationship with humans and generations.

### **Art 1- Foundations of Art**

**1 Credit**

This course is offered to students at the introductory level to the visual arts. Students will explore artist materials, techniques and processes essential to creating through the visual arts, while also learning the artist's role in society. Students will learn the benefits of creative self-expression and its effectiveness as a communicative tool. An emphasis on the Elements and Principles of Design will be taught through various 2- dimensional and 3-dimensional studio projects.

### **Art 2 & 3- Advanced Studio Arts**

**1 Credit**

*Prerequisite: Art 1 Students interested in pursuing college studies in the visual arts and/or art related fields.*

This course is designed for students with a desire to expand their artistic skills and creative minds. Students will continue their study in the visual arts while creating studio projects, independently and within collaborative groups, and for the purpose of beautification of the school, church and community. This course will introduce and incorporate lesson plans utilizing the STEAM\* framework, which will enhance the student's learning experience holistically through cross-curricular themes. STEAM\*- Science & Technology, interpreted through Engineering & the Arts, based in Mathematical elements.

### **Art History**

**1 Credit**

This course will introduce students to the history of art. Students will examine the work of artists, architects, designers, and thinkers who have changed the course of history. Students will study the historical timeline from the prehistoric period to twenty first century art and explore many of the world's cultures. The fundamentals of historical analysis, visual interpretation, and theoretical understanding will be emphasized in this course study. Students will also learn the meanings of art through the philosophy of aesthetics.

### **Drama**

**1 Credit**

Students will learn to develop and act out simple scenes. They will practice cold script reading, using their voice to express themselves, basic stage movement, and line memorization. Students will act out basic scenes and evaluate other students' performances. Students will view and evaluate local area performances. Students will assist with the school musical production through set building, set design, and either acting in the play or helping as part of the technical crew.

## **Electives**

### **ACT PREP Class (Juniors)**

**1 Credit**

The primarily web-based course which is used in the classroom setting allows students to use the courses as a supplement in preparation for the SAT/ACT test. The class follows a comprehensive **tracking report** to determine which students completed their work and how they are improving based upon their baseline test. Students listen to math, verbal and writing tutorials and each tutorial is accompanied by a quiz to test student mastery. The class offers the student to have an understanding of their strengths and weaknesses so as to improve their overall level of knowledge. Students will be graded on individual progress based upon assignments given during class or as homework assignments.

### **Creative Writing**

**1 Credit**

In this course, students will broaden their writing skills and talents by discussing and analyzing excellent published fiction and prose in order to learn the narrative techniques and strategies employed by professional writers and then apply these techniques and strategies to produce their own works of poetry, prose, and drama.

Text: The Creative Writer's Craft: National Textbook Company, Chicago, IL

### **Current Events**

**1 Credit**

This course will involve the social studies students in the research of events that are current in our society. The course will be devoted to news of every type, discussions, and possible implications. The air of this course is to present an awareness of issues and responsibilities to our young people. Topics will be chosen and presented from books, newspapers, magazines and credible internet sources.

### **Geography**

**1 Credit**

This class examines the world and its structure. The locations, the features, and the cultures of the world are also explored. The course will analyze varying types of Geography to provide students with a solid and well rounded understanding and view of the world. Geography is the study of the physical features of the earth and its atmosphere, and of human activity as it affects and is affected by these, including the distribution of populations and resources, land use, and industries.

### **Introduction to Business (Juniors and Seniors)**

**1 Credit**

The introductory business and management course aims to help students understand the implications of business activity in a global market. Students gain an international perspective of business and appreciation of cultural diversity through topics like business organization and environments, accounts and finance, international marketing, human resources management, growth and operations management. The course encourages the appreciation of ethical concerns and issues of social responsibility in the global business environment. The course will touch on Business Law, Accounting Concepts, and Principles of Management. Basic skills of problem solving, decision making, communicating, motivating and delegating will be emphasized.

## **Introduction to Personal Finance (Juniors and Seniors)**

**1 Credit**

- **Finance (First Semester)**

In this introductory finance course, students learn basic principles of economics and best practices for managing their own finances. Students learn core skills in creating budgets, developing long-term financial plans to meet their goals, and making responsible choices about income and expenses.

Understanding and managing personal finances are key to one's future financial success. This course presents essential knowledge and skills to make informed decisions about real world financial issues. Students will learn how choices influence occupational options and future earning potential. Students will also learn to apply decision-making skills to evaluate career choices and set personal goals. The course content is designed to help the learner make wise spending, saving, and credit decisions and to make effective use of income to achieve personal financial success. Class must be taken with Career and Life skills. Must be taken together.

- **Career and Life Skills (Second Semester)**

This course is designed to develop the knowledge and skills necessary to prepare for the dual role of wage earner and family member. This course will assist students in assessing their personal strengths and weaknesses as they relate to career decisions. This course will aid the student in developing strategies to make an effective transition from school to college or work. The student will develop skills in this course that are generic to all occupations, such as properly preparing career documents needed to obtain employment. Knowledge of the factors involved in these roles is vital for preparing students to make informed and competent decisions regarding career and family life. This course focuses on the development of the transferable skills students need in job and life situation tasks. These skills include: basic academic skills, thinking skills, personal qualities, use of resources, interpersonal skills and using information. Topics that will be included in this course:

- Analyzing interest, aptitudes and skills to make informed career goals.
- Using job shadowing to research careers of interest and identify career preferences.
- Demonstrating job seeking and job keeping skills to gain immediate or future employment.
- Identify entrepreneurial characteristics and skills.

## **Multimedia (Juniors and Seniors)**

**1 Credit**

This technology education course is designed to allow students to develop proficiency in computer graphics, animation, digital video production, digital audio creation and conversion, website design, and multimedia presentation development. This course is conducted with a "hands-on" approach to learning to use the various tools efficiently and effectively. Students will be introduced via discussion, and online tutorials to such twenty-first century tools such as podcasting, blogs, Scratch, storyboarding, Desktop Publishing, and video movie creation.



**Yearbook (Seniors)**

**1 Credit**

***Prerequisite: "B" or above in English 9, 10, and 11 and Teacher Recommendation***

***Students must be committed until completion of the yearbook, which may require additional time spent after graduation. (Class is limited to ten)***

This course is designed to provide the students with an understanding and appreciation of the various aspects of producing a yearbook. Emphasis included photography, computer layout and design, time management and team organization, journalistic writing, interviewing, and meeting deadlines. Students will also be responsible for producing the Senior Video.

# **MOOCs**

**Massive Open Online Courses. The site is EDX.org**

## **Intro to Business**

This course is designed to prepare students who are interested in the business field in college.

The courses are online and will use MOOCs throughout the year.

All the classes have a cost (Approx.. \$100-\$250) to obtain the certificates which are mandatory to receive honors credit.

## **Intro to Engineering**

This course is designed to prepare students who are interested in the engineering field in college.

The courses are online and will use MOOCs throughout the year.

All the classes have a cost (Approx. \$100-\$250) to obtain the certificates which are mandatory to receive honors credit.

## **Intro to Healthcare**

This course is designed to prepare students who may be interested in the healthcare field in college. The courses are online and will use MOOCs throughout the year.

All the classes have a cost (Approx. \$100-\$250) to obtain the certificates which are mandatory to receive honors credit.

## **Intro to Pre-Law**

This course is designed to prepare students who are interested in the pre-law field in college. The courses are online and will use MOOCs throughout the year.

All the classes have a cost (Approx. \$100-\$250) to obtain the certificates which are mandatory to receive honors credit.

## WVNCC College Classes

Requirements to register for the Early Entrance Program at WVNCC as a rising Madonna Senior:

**A or B in all English and Math Courses Freshman, Sophomore, and Junior years.**

**OR These minimum scores on the ACT/SAT:**

- **ACT: Reading - minimum 17, English - minimum 18, Math - minimum 19**
- **SAT: EBRW (Evidence-Based Reading & Writing) - minimum 480, Math - minimum 530**

### **ENG 101 - College Composition I**

**3 Credit(s)**

*Prerequisite(s): Satisfactory reading and writing placement test scores or [ENG 097](#).*

*Corequisite(s): Satisfactory reading and writing placement test scores or [ENG 101S](#).*

*Note: See [Core Coursework Transfer Agreement](#) information in the General Education section.*

This course requires the writing of paragraphs and short essays, and students are expected to possess a command of sentence and paragraph structure. Selected essays are read and discussed. Emphasis is placed on acquiring research skills through the process of writing a research paper.

### **ENG 102 - College Composition II**

**3 Credit(s)**

*Prerequisite(s): [ENG 101](#). Note: See [Core Coursework Transfer Agreement](#) information in General Education section*

This course is a continuation of [ENG 101](#), with an introduction to poetry, short stories and plays. Students write essays based on the literature read, and emphasis is placed on acquiring research skills through the process of writing a research paper.

### **HIST 110 - The United States to 1865**

**3 Credit(s)**

*Pre/Corequisite(s): Satisfactory reading and writing placement test or [ENG 097](#) or [ENG 101](#).*

*Note: See [Core Coursework Transfer Agreement](#) information in the General Education section.*

This course surveys the history of the United States through the Civil War, stressing the origin and development of various attitudes and beliefs about the meaning of the American experience.

### **HIST 111 - The United States Since 1865**

**3 Credit(s)**

*Pre/Corequisite(s): Satisfactory reading and writing placement test scores or [ENG 097](#) or [ENG 101](#). Note: See [Core Coursework Transfer Agreement](#) information in the General Education section.*

This course surveys the history of the United States from the Civil War, emphasizing the response of Americans to a maturing technological society which challenges the resilience of traditional values and institutions

**POLS 102 - American National Government and Politics** **3 Credit(s)**

*Pre/Corequisite(s): Satisfactory reading and writing placement test scores or [ENG 097](#) or [ENG 101](#). Note: See [Core Coursework Transfer Agreement](#) information in the General Education section.*

This course is a study of the development and performance of the American political system. It is concerned with the policy-making process, the distribution of political power, the system of checks and balances and major political institutions. Particular attention is devoted to the subjects of civil liberties, civil rights, congressional/presidential relations and the role of the Supreme Court. The electoral process, public opinion and political behavior also are considered in light of current political events.

**PSYC 105 - Introduction to Psychology** **3 Credit(s)**

*Pre/Corequisite(s): Satisfactory reading and writing placement test scores or [ENG 097](#) or [ENG 101](#). Note: See [Core Coursework Transfer Agreement](#) information in the General Education section.*

This course is a survey of psychology. Major topics include emotion, motivation, perception, learning, personality development, cognition and normal and abnormal behavior. Current therapies, changes throughout the lifespan and biological states as they affect behavior also are studied.

**SOC 125 - Introduction to Sociology** **3 Credit(s)**

*Pre/Corequisite(s): Satisfactory reading and writing placement test scores or [ENG 097](#) or [ENG 101](#). Note: See [Core Coursework Transfer Agreement](#) information in the General Education section.*

This course is an introduction to basic sociology concepts, to sociology as a discipline and to the techniques of social research. Included for study are social structure, social relationships, culture, major social institutions and sources of social change.

# Extra-Curricular Activities

Extra-curricular activities are a major aspect of the Madonna High School environment. It is important, however, that the students realize that it does the school and themselves little good if they spread themselves too thin. It is better to do a few things well than to do many things poorly. Remember that each of us must still allow time in our lives to share with our family and friends, and to reflect alone.

## Clubs/Organizations

Art Club  
Drama Club  
Interact  
Literary Magazine  
National Honor Society  
Pep Club  
Prayer Club  
Pro-Life Club  
S.A.D.D.  
Speech and Debate (Details Below)

Speech and Debate: Join National Speech & Debate Association

- Student can letter in Speech and Debate
  - Lettering Guidelines - Students may earn a letter by accumulating 12 Letter points in a single school year.
    - One (1) Letter point is earned for each tournament in which you compete. Students must compete five times in order to receive a letter.
    - One (1) Letter point is earned for each service you perform for the team.
    - One (1) Letter point is earned for each NFL degree achieved.
    - One (1) Letter point is earned for each time you break finals at a varsity tournament.
    - One (1) Letter point is earned for serving as a Presiding Officer at a varsity congress.
    - One (1) Letter point is earned for being elected Most Outstanding Speaker or Superior Speaker at a varsity congress, or for being nominated at the NFL Congress.

## **Athletics**

Baseball  
Basketball  
Cheerleading  
Cross Country  
Football  
Golf

Girls Soccer  
Softball  
Tennis  
Track  
Volleyball  
Wrestling

## **Special Events/Features**

Alumni Speakers  
Armed Forces Visitation  
Baccalaureate Mass  
Catholic Schools Week  
College Fairs  
College Presentations  
Commencement Ceremonies

Eighth Grade Visitation  
Homecoming Activities  
Junior Ring Ceremony  
Junior/Senior Prom  
Play  
Spirit Week