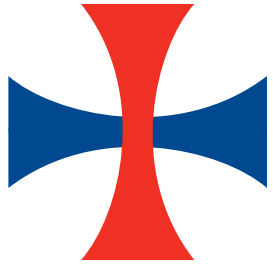


Catalog of Courses



DeMatha Catholic High School



2023-2024

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Dear Student:

In older encyclopedias one used to find overlays so that when one looked up frog anatomy, for example, there would be a skeleton all labeled. One could then turn the next page over top of the skeleton and add the circulatory system and another over that and add the skin. You really had to have the skeleton for anything else to work and in some ways that is what the Course Catalogue provides you.

This booklet contains brief descriptions of each course of study that will be offered to DeMatha students during this academic year. These descriptions are the skeletons that your faculty and you will flesh out and bring to life over the term of the course. From the range of courses found in this catalogue it is clear that DeMatha Catholic High School is making every attempt to offer a program of studies that serves the needs, interests, and abilities of each student.

In the tradition of providing a liberal education, the school requires that each student follow a minimum program in a wide range of areas. Too often, students say, "I am never going to use this," as a justification for not studying something. But this is flawed reasoning. Nothing is useful unless it is used and so the usefulness of something is not inherent in the thing itself. The better question for students to take up when they choose classes is, "In addition to the information I gain, what skills will I be developing in this course?" Skills are always transferable from one discipline to another and at DeMatha we aim to give students the widest skill set we can.

When a student is planning his program of studies for the next academic year, he should do so in consultation with his parents, teachers, and counselor. This booklet will supply a great deal of information needed to make the best course selection for each student.

DeMatha, in cooperation with the parents, provides the formal aspect of a student's education at this critical time of his life. Through the program of studies, and in coordination with religious and co-curricular activities of the school, we attempt to help each student prepare for adulthood. We can only achieve this goal in partnership with the parents and the students.

Daniel J. McMahon, Ph.D.
Principal

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REQUIREMENTS FOR GRADUATION

| | |
|-------------------------------|--|
| Theological Studies | 4 credits (Students entering after 9th grade earn one credit each year while at DeMatha.) |
| English | 4 credits (These include only English 9, American Literature, World Literature, and British Literature plus Senior Seminar.) |
| Social Studies | 3 credits (These include AP Human Geography or World History, U.S. History, and Government.) |
| Sciences | 3 credits (Recommend 4 credits) |
| Mathematics | 4 credits |
| Health and Physical Education | 1/2 credit in each |
| Arts | At least one fine arts class. |
| World Languages | 3 credits |
| Christian Service | 55 hours of Christian service during Freshman, Sophomore, Junior and Senior years (0 credit). |
| The DeMatha Way | Required for all Freshmen. |

Note: Students in grades 9, 10, and 11 must attempt a minimum of seven credits per year while in attendance at DeMatha. Students in grade 12 must attempt a minimum of 6.5 credits per year. ****Courses marked with "DC" receive Dual Credit at Both DeMatha and Seton Hill University.****

Required for all Freshmen:

THE DEMATHA WAY (DP 0001)
Grade 9 1 sem. ½ cr.

This is a one semester class required of all freshmen. Its goal is to assist ninth graders in transitioning into the school culture that is particular to DeMatha High School. Students will be exposed to the history of the school and its accompanying Trinitarian influence. The class will not only serve as a type of orientation but would also be skills driven in terms of study habits and technology use. Topics covered will be the school's emphasis on civility, character education, and the school's gentleman and scholar theme, among others. Various methods of evaluation will be used with a heavy emphasis on a student's responsibility in carrying out his assignments. While there will be a teacher assigned permanently to each class, guest speakers from various skill and topical backgrounds will be asked to discuss their respective areas of expertise with the students. These speakers will include teachers, administrators, Trinitarians, and other students.

THEOLOGY

The human person is created for happiness. The Theology Department aims to assist and accompany the young men of DeMatha Catholic High School to that end. The mission of the Theology Department is to help the student grow closer to Christ. This is accomplished through the study of Scripture, Church Teaching, Christian Spirituality, Philosophy, and Moral Theology. The Theology Department partners with the Campus Ministry Office in its care for our students. The primary concern of the Theology Department is the spiritual formation of the students of DeMatha.

CORE REQUIRED COURSES

THE SEARCH FOR GOD (DP 0123)
Grade 9 2 sem. 1 cr.

The Revelation of Jesus Christ in Scripture

In the first 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. Students 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?

In the second 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.

THE LIVING WORD (DP 0223)
Grade 10 2 sem. 1 cr.

The Mission of Jesus Christ

In the first 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.

Jesus Christ's Mission Continues in the Church

In the second semester, the purpose of this course is to help the 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.

CHRISTIAN ETHICS/SACRAMENTS (DP 0325) Grade 11 2 sem. 1 cr.

Christian Ethics

The purpose of this part of the course is to help students understand that it is 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.

Sacraments

The purpose of this part of the 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.

FUNDAMENTALS OF CATHOLIC THOUGHT AND TRADITION (DP 0430)
Grade 12 1 sem. ½ cr.

This one-semester course for seniors identifies key elements in Catholic thought and tradition. The goal of the class is for the student to encounter and analyze Catholic philosophy and belief not as an abstract concept but as a way of being that shapes all aspects of human existence. The student will learn the foundational doctrine and philosophy of the Catholic Church and how it relates to life in the modern world. By the completion of the class, the student will have a better understanding of the Catholic philosophical and theological tradition and be able to analyze and explain the fundamental concepts of the Church.

CATHOLIC SOCIAL TEACHING (DP 0440)
Grade 12 1 sem. ½ cr.

The purpose of this course is to introduce students to the Church's social teaching. Students are to learn how Christ's concern for others, especially the poor and needy, is present today in the Church's social teaching and mission. The class will cover the seven themes of Catholic Social Teaching and how these are displayed in the lives of the saints. In addition, numerous Church documents and philosophical writings will be read and discussed.

CATHOLICISM IN AN ECUMENICAL WORLD (World Religions) (DP 0429)
Grade 12 1 sem. ½ cr.

This one semester course will provide a foundational base for today's students living in a society of religious diversity. Living in this diverse society often lacks religious literacy, often limiting a person's understanding of various religions and their roles in human society, nor allowing them to talk about them intelligently. Being a Catholic Christian in the United States, people seem to know less and less about even their own faith tradition, much less others. The focal point of this course will be anchored in and consistent with the Catholic tradition. The invitation to redefine "neighbor" has been issued by the church to promote compassion and solidarity in the world, and so this course is a response to this invitation. This course will follow a comparative course format.

PROPHETIC LITERATURE (DP 0442)
Grade 12 1 sem. ½ cr.

This course examines the phenomenon of prophecy in Israel, and surveys early "non-writing" prophets, and classical prophets in their historical contexts to uncover their theological message and understand the development of prophecy into eschatology and apocalyptic (i.e. Taking a tour through the Book of Revelation).

NEW TESTAMENT SCRIPTURE (DC) (DP 0443) Grade 12 1 sem. ½ cr.

An introduction to the New Testament, with an emphasis on the Gospels and the major Letters of Paul. The course includes political and cultural background, theological themes, and the relevance of these writings for life today. Students in this course can sign up for dual enrollment to earn 3 college credits. Spring semester.

ENGLISH

It is the position of the English Department that every student must develop an understanding of himself and how he relates to the persistent questions with which Humanity has coped over the years so that he might discover how he can create a place for himself in the dynamic and increasingly complex modern world. The department believes that a careful examination of literature can assist in the development of these insights.

The department also insists that a student must master a variety of language skills if he is to participate competently in our society. Among these are the ability to read well, to interpret logically, and to communicate effectively in both oral and written expression.

Instructional Goals

- 1.) The acquisition of facts and concepts that will help him understand how men and women have dealt with many of the significant issues of both the past and present
- 2.) The development of the thought processes necessary for making sound judgments and engaging in effective problem solving
- 3.) The mastery of grammatical constructions; an effective vocabulary; the basic conventions of punctuation, capitalization and rhetoric essential to effective oral and written expression;
- 4.) The evolution of attitudes and values which are both consistent with Christian principles

and essential to living with insight and empathy with other human beings

All students are required to obtain four credits in English to meet graduation requirements. Credits obtained in electives do not substitute for regular English credits.

ENGLISH 9 (DP 1123) Grade 9 2 sem. 1 cr.

During the Freshman year, major attention is given to the active reading and interpretation of a variety of literary genres. The literature is arranged into thematic units such as Mythology and the Hero's Journey, Coming-of-Age, Language and Power, and Dystopia. This course reviews fundamental grammar concepts by teaching students to recognize and correct common errors in context. The writing curriculum during the Freshman year emphasizes sentence- and paragraph-composing skills as students learn to write multi-paragraph essays that explain or analyze a given topic. Instructors maintain flexibility in the selection of texts according to the interests and developmental levels of students. Common titles used in the various thematic units include *Night* (Wiesel), *Animal Farm* (Orwell), *The Alchemist* (Coelho), and *Julius Caesar* (Shakespeare).

HONORS ENGLISH 9 (DP 1113)
Grade 9 2 sem. 1 cr.

This course offers a more intensive program of study within the English 9 curriculum, with additional emphasis placed on the critical reading of difficult texts.

AMERICAN LITERATURE
(DP 1223, 1233) Grade 10 2 sem. 1 cr.

Depending on the instructor, this course will proceed chronologically or thematically through the major literary periods of our country's past, such as Romanticism, Transcendentalism, Realism, and Modernism. Major writers are emphasized. Reading lists vary by instructor, but most cover classics such as *The Narrative of the Life of Frederick Douglass*, *The Great Gatsby*, and *A Raisin in the Sun*. Many sections also include the study of poetry and film. Special attention is given to cross-textual themes such as the American Dream, reinvention, and the relationship between an individual and his/her society. Students will develop a critical eye for the cultural landscape and the texts that have shaped our national identity. This course takes a compositional approach to grammar instruction and aims to improve the thoughts and mechanics behind good writing.

HONORS AMERICAN LITERATURE
(DP 1243) Grade 10 2 sem., 1 cr.

This course offers a more intensive study of American Literature than the regular course, and students should be prepared for lengthy reading assignments on a nightly basis to accommodate the extra texts. Students will also practice working with literary criticism and synthesizing various sources in their essays. In addition to providing a survey of American Literature, the course is aimed at preparing students for the AP Language and Composition and/or AP U.S. History classes, should they decide to take either during their Junior year.

Prerequisites: Placement in honors-level English classes is a competitive process for students who have distinguished themselves through a

combination of achievement, aptitude, and attitude. Students registering for Honors American Literature must have a minimum "B" average in Honors English 9 or a minimum "A-" average in English 9, must have approval from their freshman English instructor, and must submit a piece of in-class writing. The department co-chairs will finalize all honors placements after year-end grades are available.

WORLD LITERATURE
(DP 1323, 1333) Grade 11 2 sem. 1 cr.

This course focuses first on the development of the Western literary tradition by examining Greek tragedy and/or epic poetry as well as selections from Classical mythology. Students will also be exposed to seminal works of Medieval and Renaissance literature before using the novel and modern short story to experience cultures from Africa, the Far East, Polynesia, and the Americas. Collateral areas of study include developing an awareness of inner personal conflicts and intra-personal conflicts in fictional characters and introducing the students to the literary responses to important social and philosophical problems. As always, the literature is a touchstone to the student's personal life and the student is always encouraged to investigate responses to problems that have always intrigued people. The development of writing skills is continued from American Literature.

HONORS WORLD LITERATURE
(DP 1343) (4.5) Grade 11 2 sem. 1 cr.

All of the information presented in World Literature is covered with greater intensity and depth. A greater emphasis is also placed on student writing.

Prerequisites: Placement in honors-level English classes is a competitive process for students who have distinguished themselves through a combination of achievement, aptitude, and attitude. Students registering for Honors World Literature must have a minimum "B" average in Honors American Literature or a minimum "A-" average in American Literature, must have approval from their sophomore English instructor, and must submit a piece of in-class writing. The department co-chairs will finalize all honors placements after year-end grades are available.

ADVANCED PLACEMENT ENGLISH LANGUAGE AND COMPOSITION (DP 1354)
(5.0) Grade 11 2 sem. 1 cr.

This class focuses on rhetoric as a constructive and deconstructive tool. Students will study the major concepts and terms of rhetorical analysis so that they can use them to compose persuasive essays of their own and analyze the strategies and techniques that other writers/speakers employ in essays, speeches, debates, advertisements, and many other types of texts, the majority of which will be non-fiction texts. This part of the class prepares students to take the Advanced Placement Language and Composition Examination. In addition, the class introduces students to literary texts from various parts of the world. These texts, such as *Don Quixote*, *Germinal*, 1984, *Persepolis*, and *Midnight's Children*, will be analyzed from both a literary and a rhetorical standpoint. The syllabus for this course has been approved by the College Board.

Prerequisites: Placement in AP-level English classes is a competitive process for students

who have distinguished themselves through a combination of achievement, aptitude, and attitude. Students registering for AP English Language and Composition must have a minimum "A-" average in Honors American Literature or a minimum "A" average in American Literature, must have approval from their sophomore English instructor, and must submit a piece of in-class writing. The department co-chairs will finalize all AP placements after year-end grades are available.

BRITISH LITERATURE (DP 1423)
Grade 12 1 sem. ½ cr.

The framework for this one-semester course is the in-depth study of a few key texts within the British tradition. Students consider how historical events and philosophical ideas define the way we group and study individual works; how writers advance or subvert cultural truths through their literary responses to their society; and why we assign places of importance to some writers while we marginalize others. The development of writing skills is continued from World Literature.

HONORS BRITISH LITERATURE (DP 1444)
(4.5) Grade 12 1 sem. ½ cr.

The information presented in British Literature is covered with greater intensity and depth. A greater emphasis is placed on student writing.

Prerequisites: Placement in honors-level English classes is a competitive process for students who have distinguished themselves through a combination of achievement, aptitude, and attitude. Students registering for Honors British Literature must have a minimum "B" average in Honors World Literature or a minimum "A-" average in World Literature, must have approval from their junior English instructor, and must submit a piece of in-class writing. The department co-chairs will finalize all honors placements after year-end grades are available.

ADVANCED PLACEMENT ENGLISH LITERATURE AND COMPOSITION (DC)
(DP 1453) (5.0) Grade 12 2 sem. 1 cr.

This class focuses on the literary analysis of poetry, fiction, and drama written in the English language. Students will read and analyze short stories and novels by a range of writers from a variety of backgrounds, places, and time periods. They will also read and watch at least one play and analyze numerous poems via an anthology that covers a diverse sampling of poetic forms, movements, and content. Students will be expected to produce college-level writing that provides sophisticated close readings of texts and engages with any relevant literary criticism. This part of the class prepares students to take the Advanced Placement Literature and Composition Examination. The syllabus for this course has been approved by the College Board. It has also been approved by Seton Hill University's College in High School program, allowing students to receive college credit upon successful completion of the course, independent of the AP test score.

Prerequisites: Placement in AP-level English classes is a competitive process for students who have distinguished themselves through a combination of achievement, aptitude, and attitude. Students registering for AP English Literature and Composition must have a minimum "B" average in AP English Language

and Composition, a minimum “A-” average in Honors World Literature, or a minimum “A” average in World Literature; must have approval from their junior English instructor; and must submit a piece of in-class writing. The department co-chairs will finalize all AP placements after year-end grades are available.

Senior Seminars in Literature

In the senior year, students who register for British Literature or Honors British Literature will also be required to take a 1/2-semester Senior Seminar during the other semester. Students will have a choice from among several seminars, all of which will emphasize research and writing skills in the completion of a substantial research-based seminar paper. Students will be able to indicate and rank their course preferences when registering for a Senior Seminar, though placement in a specific Seminar will largely depend on a student’s schedule availability.

CRIME AND DETECTIVE FICTION

(DP 1424) Grade 12 1 sem. ½ cr.

This class surveys the genre of crime and detective fiction, beginning with Edgar Allan Poe and Arthur Conan Doyle and building to more contemporary examples. Students will apply critical reading skills to these texts and consider them as both popular entertainment and social history, for the detective simultaneously investigates both the specific crime and the moral environment that contains it. As such, we will contextualize our reading through lessons on Victorian and Golden Age Britain, Depression-Era America, and urban communities in the contemporary U.S. At the heart of any detective narrative is the search for truth and justice. Thus, this class will activate and build on students’ prior philosophical knowledge regarding truth, justice, and the good.

SPECULATIVE FICTION

(DP 1487) Grade 12 1 sem. ½ cr.

Speculative fiction is a broad category of stories that includes science fiction, fantasy, and other depictions of utopian or dystopian worlds. Roughly speaking, it is an exploration of other realities and modes of existence in a way that reveals some truth about our own. It can raise pressing philosophical and political questions while offering an imaginative outlet for anxieties about the shape and conditions of modern life. Depending on the instructor, this course may offer a survey of the “super genre” or consist of a concentrated study of a specific type. In addition to enjoying the stories of these inventive writers, students will gain an appreciation for the historical and societal forces which shaped the production and initial consumption of these fictional works.

AFRICAN AMERICAN LITERATURE

(DP 1711) Grade 12 1 sem. ½ cr.

This seminar will center around three different periods in African-American literature. Working chronologically, students will read selected works from slave narratives, the Harlem Renaissance, and the Civil Rights era. Students will also be exposed to the explosion of art and culture beginning in the Harlem Renaissance—jazz, poetry, fiction, non-fiction, and art. Each work will be put in historical and cultural context. Students will be encouraged to write their research papers on the individuals behind

the works we read, the history which drove the themes we study, the cultural response to those works, and other themes discussed in class.

ADVANCED FILM STUDY

(DP 1536) Grade 12 1 sem. ½ cr.

This class introduces students to film analysis from a formalist perspective. While formalism will be the primary angle of interpretation, social and historical contexts will be stressed throughout the course. The class starts with an overview of film terms and the analysis of very early film (1896-1904). From there, the class will observe and analyze scenes from iconic films from the 1910s and the 1920s. Students will apply critical viewing skills to these texts and consider them as both popular entertainment and social history. Students will study various genres of film and will become familiar with the vocabulary of film analysis: elements of shot composition, montage, subjective, objective and personified cameras, lighting, tracking and crane shots, high- and low-camera angles, dominant and subsidiary contrasts, open and closed form. When students have gained a “working visual literacy,” they will focus on the work of a specific director and do a research paper on that director’s body of work.

ADVANCED CREATIVE WRITING

(DP 1822) Grade 12 1 sem. ½ cr.

This course offers an in-depth look at the style and craft of various writers and an opportunity for students to replicate those techniques in their own creative projects. Students will be asked to complete a research project that focuses on a writer of their choosing (approved by the instructor) and to produce their own short stories and/or poetry. Often looking at a work from a “writer’s perspective” produces new insights, and students, who have been primarily “readers” for their academic careers, may delight at this new approach. This is a wonderful option for students who enjoyed the Creative Writing elective and would like to continue in the field, but the Creative Writing elective is not a prerequisite for the senior seminar course.

THE ROAD TO CIVIL RIGHTS

(DP 2901) Grades 10, 11, 12 ½ cr.

This course is a summer offering that begins with a trip to the National Museum of African American History and Culture in the spring. Then, during the last week of June and first week of July, the students will travel to Nashville, Memphis, Selma, Montgomery, Atlanta, and Richmond. Students will read important works and visit museums and historic sites as they come to understand the importance of the Civil Rights movement in America and reflect on their work through journals and podcasts. The final itinerary will be announced this Spring and there will be an organizational meeting with parents and participants. Expected cost is about \$1750 which will include all travel, lodging, some meals, and museum entry. A final price will be announced when the itinerary is finalized. This course is cross-listed in the Social Studies Department.

SPORTS JOURNALISM

(DP 1544) Grades 10, 11, 12 1 sem. ½ cr.

This course teaches all phases of newspaper and magazine production, including philosophy

of the press and mass communication, types of newspapers, careers in the media, news gathering, and news writing, with a particular focus on the coverage of sporting events and athletes. Students will study pieces of professional sports journalism and write their own. This course is involved in the production of the school newspaper, now an online publication (students not enrolled in this course can still contribute to the school paper).

Prerequisite: Permission of instructor.

OPINION WRITING

(DP 1545) Grades 10, 11, 12 1 sem. ½ cr.

This course teaches the philosophy of the press and mass communication with a particular focus on opinion writing, covering editorials, op-eds, and letters to the editor. Students will study published opinion pieces to learn elements of argumentation and learn how to incorporate research into their columns. There is also a strong media literacy component to the course, in which students will learn to critically evaluate sources, understand the messages that are being presented, and draw distinctions between evidence and claims. This course is involved in the production of the school newspaper, now an online publication (students not enrolled in this course can still contribute to the school paper).

Prerequisite: Permission of instructor.

ADVANCED JOURNALISM

(DP 1546) Grades 10, 11, 12 2 sem. 1 cr.

This full-year course requires students to take active roles as editors and writers of the school newspaper, The Stagline. In addition to several of the topics covered in the beginning journalism courses, this course will include headline writing, layout principles, and photojournalism. This course may be repeated for credit.

Prerequisite: Successful completion of either Sports Journalism or Opinion Writing.

MYTHOLOGY

1 (DP 1721) Grades 10, 11, 12 1 sem. ½ cr.

Mythology reflects ancient and modern man’s religion, psychology, philosophy, history and sociology. In this class myths are examined as well as the features that make them relevant to all people of all times. The focus is mainly on Greek and Roman myth. Students will also study Norse myth and the Trickster figure in various world mythologies.

CREATIVE WRITING

(DP 1821) Grades 10, 11, 12 1 sem. ½ cr.

This course explores the basics of writing fiction, creative non-fiction, and poetry. Students will read examples of these genres, as well as essays about the craft of writing. Class time is spent both discussing elements of craft (such as characterization, sensory detail, and figurative language), and work-shopping student writing. The goals of the course are to expose students to different types of writing, provide them with a vocabulary to talk effectively about writing, help them develop a more critical eye toward their own work, and enable them to hear their own voice on the page.

SPEECH

(DP 1627) Grades 10, 11, 12 1 sem. ½ cr.

This course is designed to provide students

with the skills and confidence associated with preparing, writing, and presenting speeches, interviews, and other forms of public communication. Students are made aware of the many aspects of communication including eye contact, voice tone, non-verbal movement, content preparation and research. Students will perform mock newscasts, interviews, speeches and other presentations designed to utilize these skills. Students will work individually and in groups throughout the semester, culminating in a one half hour production in May.

FILM STUDY (DP 1531)
Grades 10, 11, 12 1 sem. ½ cr.

This one-semester course, an elective, acquaints students with the many genres of film and requires the students to become familiar with the vocabulary of film analysis: elements of shot composition; montage; subjective, objective and personified cameras; lighting; tracking and crane shots; high- and low-camera angles; and, open and closed form. Assignments for the class will include frequent essays, quizzes (some of which will include visual analysis), and tests.

READING AND STUDY SKILLS
(DP 1533) Grade 9 2 sem. 1 cr.

The fundamental purpose of this course is to help students develop the skills and self-discipline necessary for success in their other academic work. Those enrolled in the class will be required to master procedures – time management, establishing a work space, active reading, note-taking, and others – that are known to be effective in converting hesitant learners into accomplished and therefore confident students. The class will assist each student to create an individual program of study habits -- embodying the course principles of organization, concentration, and self-control-- suited to the student's special requirements and talents.

The portions of this course devoted to developmental reading aim to transform poor and reluctant readers' unfavorable attitudes toward reading and to cultivate within them the disciplines necessary for effective reading along with a taste for the pleasures of reading. These goals are achieved through a variety of techniques – among them, vocabulary development, textual analysis, and exercises in interpretation – which will advance the student through more complicated levels of explication and increasing sophistication in style, oral and written, and understanding.

Students are encouraged to see this class not as a separate subject but as a tool for achieving levels of satisfactory performance across the full range of their courses. Eligibility for enrollment in this course will be determined by teacher recommendation after a review of standardized test scores and evaluation of reading skills.

VIDEO BROADCAST JOURNALISM
(DP 1905) (4.0) Grades 10, 11, 12 2 sem. 1 cr.

Video Broadcast Journalism is a course that has been created to teach the foundations of Broadcast Journalism. With the use of PlayOn! Sports software, students will learn to prepare for on air broadcasts (including Internet research, and video editing), be a sports commentator, operate the back end computer system for broadcasts, and have the basic fundamentals to be either an on-air talent or a Broadcast Journal-

ist in College. The class will meet when scheduled by the instructor. Students will be required to do most of their work after school and will be required to sign up to cover various home sporting events. In addition, the class will do many broadcasts during and after school. This is a great class for anyone who is interested in working for ESPN, FOXSports, CNN, and any other television or Internet broadcasting company.

ENGLISH AS A SECOND OR OTHER LANGUAGE (ESOL) (DP 1904)
Grades 9, 10, 11, 12 1 sem. ½ cr.

This course is intended to teach the fundamentals of grammar and writing to English-Language Learners. Students will receive direct instruction in grammar and composition. In addition, students will work on their reading-comprehension skills and their speaking/listening skills. The course will utilize a grammar textbook, TOEFL exercise books, films, and students' texts from their other concurrent courses at DeMatha. Eligibility for the course will be determined by the ESL Coordinator and the instructor.

RESEARCH AND PRESENTATION
(DP 3815) Grades 10, 11, 12 1 sem. ½ cr.

This is a one-semester course designed to teach the student how to do effective research, presentation, communication, writing, collaboration, and programming using the tools available today. For complete description, see page 9.

SOCIAL STUDIES

The Social Studies program can be divided into two components. The first is to devise a course of studies that gives our college bound students the skills they will need to succeed in college. The other component is more difficult. The faculty hopes to instill in our students a life-long appreciation for, and enjoyment of, the many disciplines within the Social Studies curriculum. We would like our graduates to interact with their world and society in a thoughtful and empathetic manner. In order to achieve such lofty goals the following approach is used.

To help students succeed in college, great emphasis is placed on skill development. Basic skills such as reading, outlining, organization of materials and some research skills are taught. In various degrees throughout the curriculum, critical thinking skills, attitude formation, decision-making and values education are stressed.

A variety of instruction methods are used including role-playing, problem solving, simulation games, group discussions, films, research projects, professional speakers, and field trips are also employed to stimulate interest and encourage more student participation. The use of these methods depends on the course content and the ability level of the students. To insure that the abilities and the interests of the students are met, careful attention is given to the selection of teaching topics as well as the materials that are chosen.

There is a required minimum of three credits in Social Studies: College Prep or Honors World History plus a World History seminar or AP World History or AP Human Geography; United States History; and Government. To satisfy the interests of the students, several electives are available for sophomores, juniors and

seniors.

FOUNDATIONS OF WORLD HISTORY
(DP 2223) Grades 9, 10 1 sem. ½ cr.

HONORS FOUNDATIONS OF WORLD HISTORY (DP 2243) Grades 9, 10 1 sem. ½ cr.

Foundations of World History is a one-semester introductory course designed to examine global themes in human development dating from Pre-history to the Early Modern Era. Students will use primary and secondary sources to explore the impact of a wide range of elements critical to civilization building. These include but are not limited to: geography, conflict, cultural institutions, political and economic systems and their role in the evolution of human societies common across time and space. Topics of study include early civilizations and empires, global interactions, Post Classical empires, and the age of exploration. Students are required to pair this course with a Spring semester World History Seminar. (This course can be taken on the College Prep or Honors level.)

World History Seminars

During the freshmen or sophomore year, students who register for Foundations of World History or Honors Foundations of World History will also be required to take a ½-semester World History Seminar during the Spring semester. Students will have a choice from among several seminars, all of which will focus on a specific theme or region of the world from the Early Modern period to the Contemporary period. Students will be able to indicate and rank their course preferences when registering for a World History Seminar, though placement in a specific seminar will largely depend on a student's schedule availability.

EUROPEAN HISTORY (DP 2623)
Grades 9, 10 1 sem. ½ cr.

HONORS EUROPEAN HISTORY (DP 2643)
Grades 9, 10 1 sem. ½ cr.

European History is a second semester World History Seminar course. Students will use primary and secondary sources to examine European history in the Post Classical Age to the Modern Era. The goal of the course will be to study the many different people, cultures, and events in Europe. Topics of study may include but are not limited to the Renaissance and Reformation, the Enlightenment and French Revolution, and the World Wars in the 20th Century. (This course can be taken on the College Prep or Honors level.)

THE WORLD AT WAR (DP 2560)
Grades 9, 10 1 sem. ½ cr.

HONORS THE WORLD AT WAR (DP 2561)
Grades 9, 10 1 sem. ½ cr.

The World at War is a second semester World History Seminar course designed to examine global themes and the rising tensions that existed in the 20th century. Students will use primary and secondary sources to explore the causes and effects of a world at war. These include but are not limited to: geography, conflict, cultural institutions, political and economic systems and their role in the formation of the world we know today and the societies that have evolved in the wake of these 20th century conflicts. Conflicts included in this course of study are the Russo-

Japanese War, Rise of Totalitarianism, World War I, World War II, and Cold War hot spots.

STRUGGLE, REVOLUTION, AND EMPIRE IN THE AMERICAS (DP 2563)
Grade 9, 10 1 sem ½ cr.

Struggle, Revolution, and Empire in the Americas (STREAM) is a second semester World History Seminar course examining Latin American history that covers the Early Modern Era into the present day. The class will use primary and secondary sources to plot the course of major events in South America, Central America, and the Caribbean. Students will engage with complex topics ranging from indigenous people's first contact with Europeans, economic and social impact of colonization, workers rights movements, and the struggle for independence. Themes of study for this course include: exploitation, cross cultural exchange, revolution, and independence.

HONORS IMPERIALISM TO INDEPENDENCE (DP 2562)
Grade 9, 10 1 sem/spring ½ cr.

Imperialism to Independence is a second semester World History Seminar course designed to study global movements and policies that reshaped the world as we know it today. Students will use primary and secondary sources to analyze the imperialism of Africa, Asia, Latin America and the Middle East. Throughout this course students will gain perspectives on the practices of imperialist countries as well as the movements for independence that arose in many of the nations that were imperialized. Course themes include: world and regional economics, cultural diffusion, ethnic conflict, geographic development, and political evolution. Topics of study may include colonial Africa, the rise of Japan, the impact of the World Wars, Spanish American War, and the rise of Islamic extremism. This study of imperialism will help students to fully understand the current climate of the modern world.

ADVANCED PLACEMENT WORLD HISTORY: MODERN (DP 2154) (5.0)
Grades 10, 11, 12 2 sem. 1 cr.

In AP Modern World History students investigate significant events, individuals, developments, and processes from 1200 to the present. Students develop and use the same skills, practices, and methods employed by historians: analyzing primary and secondary sources; developing historical arguments; making historical connections; and utilizing reasoning about comparison, causation, and continuity and change over time. The course provides six themes that students explore throughout the course in order to make connections among historical developments in different times and places: humans and the environment, cultural developments and interactions, governance, economic systems, social interactions and organization, and technology and innovation. *Failure in this course will require students to World History the following year.*

Prerequisites: A minimum GPA of 3.0 from the previous year and completion of a separate course application form obtained from your counselor or the Department Chair. If accepted, completion of a summer packet before the start of the course may be required.

UNITED STATES HISTORY (DP 2323)
Grade 11, 12 2 sem. 1 cr.

This course traces the history of America and its people, focusing on the attitudes of the people during the different periods in our history. The textbook is set up in a narrative chronological approach, so that students can see how events are interrelated. The course has a very broad coverage starting with the European background of discovery and moving all the way up to the current administration. A multi-media instructional approach is used consisting of filmstrips, slides, magazines, newspapers and inquiry readings.

HONORS UNITED STATES HISTORY (DP 2343) (4.5) Grades 11, 12 2 sem. 1 cr.

This is an advanced course in U.S. History that will offer a more profound inquiry into the events, movements, and people who have dramatically affected our history. The course is designed to satisfy the academic needs of those students who, for whatever reason, do not elect to take the Advanced Placement History, but who still want the intellectual challenge of a more mature study than the required United States History course for juniors. The student will be called upon to interpret historical opinions and documentation; to analyze conflicting histories, and to respond intelligently in writing to comprehensive questions related to our history. In order to impart a thorough understanding of America's current role in world affairs, the course will deal primarily with American history of the twentieth century. Students will be able to identify and discuss trends in American foreign and domestic policy as well as American social history. Only those students with strong reading and writing skills should consider this course.

Prerequisite: 3.0 - 3.5 overall average and approval of Social Studies Department Chair Final determination for acceptance into this course will be made using standardized test scores and teacher recommendations.

ADVANCED PLACEMENT UNITED STATES HISTORY (DP 2554) (5.0)
Grades 11, 12 2 sem. 1 cr.

AP U.S. History is designed to be the equivalent of a two-semester introductory college or university U.S. history course. In AP U.S. History students investigate significant events, individuals, developments, and processes in nine historical periods from approximately 1491 to the present. Students develop and use the same skills, practices, and methods employed by historians: analyzing primary and secondary sources; making historical comparisons; utilizing reasoning about contextualization, causation, and continuity and change over time; and developing historical arguments. The course also provides seven themes that students explore throughout the course in order to make connections among historical developments in different times and places: American and national identity; migration and settlement; politics and power; work, exchange, and technology; America in the world; geography and the environment; and culture and society. Additionally, students will learn to compose various written responses including; document based questions, long essay questions, and short answers.

Prerequisites: A minimum GPA of 3.0 from the

previous year is required or permission from the instructor/Department Chair.

GOVERNMENT/LAW (DP 2423)
Grade 12 2 sem. 1 cr.

This required two semester course is a study of American Government and practical law. In the government portion, which goes partway into the 2nd semester, emphasis is placed on the U. S. Constitutional system identifying constitutional development and operation, the electoral process, and our three-branch system of government. Within practical law, students course of study will include criminal law, civil law, consumer law, family law, and housing law. A senior taking this course will be exposed to various methods of study, organization, and reinforcement. Students will receive a syllabus to guide their studies, which will include activities such as films, simulations, and speakers.

HONORS GOVERNMENT (DP 2443) (4.5)
Grade 12 2 sem. 1 cr.

This course is a two semester study of American National Government. Topics studied are the Constitution, the Electoral Process, the three branch system of American national government, the bureaucracy, interest groups, the media and civil rights. The course uses a standard text supplemented by a book of readings on contemporary American Government. Students are required to submit a brief research paper each quarter. A syllabus is used as a guide to the student's study and organization.

Prerequisite: 3.0 - 3.5 overall average and approval from Social Studies Department Chair. Final determination for acceptance into this course will be made using standardized test scores and teacher recommendations.

ADVANCED PLACEMENT GOVERNMENT (DC) (DP 2453) (5.0) Grade 12 2 sem. 1 cr.

This course is an in-depth study of the national government and the U.S. Constitution. Units include an analysis of the three branches of government, the intricacies of federalism, Civil Liberties, Civil Rights, the electoral system, economic and social welfare policy, and military and foreign policy. A special emphasis is placed on essay writing and the writing of several short papers. Also highlighted are primary source readings and an analysis of on-going political and governmental developments as described in editorials and periodicals. The syllabus for this course has been approved by the College Board. Students who take this course are strongly encouraged to take the Advanced Placement exam for college credit in May.

Prerequisites: Honors US History or AP US History plus overall 3.5 - 4.0 average; approval from the Social Studies Department Chair. Final determination for acceptance into this course will be made using standardized test scores and teacher recommendations.

ADVANCED PLACEMENT COMPARATIVE GOVERNMENT AND POLITICS (DC) (DP 2460) (5.0) Grades 10, 11 and 12 2 sem.1 cr.

Students will examine the political institutions and processes of six different countries—China, Iran, Mexico, Nigeria, Russia, and the United Kingdom—and compare the ways they address problems. Students will analyze data and

readings to draw conclusions about political systems. Units of study will include; political systems, regimes, and governments, political institutions, political culture and participation, party and electoral systems and citizen organizations, political and economic changes and development. Students with an interest in political science should strongly consider this course. Students are required to sit for the College Board AP Exam. This course does NOT replace U.S. Government (DP 2423, 2443, 2453) as a graduation requirement.

Prerequisites: Honors U.S. History/AP U.S. History. A minimum GPA of 3.0 from the previous year is required or permission from the instructor/Department Chair.

THE AFRICAN AMERICAN EXPERIENCE
(DP 2547) Grades 10, 11, 12 1 sem. ½ cr.

This introductory course focuses on an examination of Black life, economics, and politics in the United States, 1619 - Present Day. The goal of this class is to offer students the opportunity to explore the modern Black experience by examining trends and key moments in American history as told by Black authors, historians, and social critics. Organized thematically, the course will explore racism and resistance, the power of stereotypes, and struggle between institution and individual.

HONORS THE AFRICAN AMERICAN EXPERIENCE
(DP 2557) (4.5)
Grades 10, 11, 12 1 sem. ½ cr.

Honors African American Experience focuses on an examination of Black life, economics, and politics in the United States, 1619 - Present Day, using a multidisciplinary approach. Students will analyze critical race theory through the lenses of history, psychology, and sociology. Honors AAE will provide students with historical context to the modern Black experience by highlighting overarching trends and key moments in American history. The course is organized thematically. It will cover the origins of scientific racism, Jim Crow/segregation, mass incarceration, and the American post-racial myth of the late 2000s early 2010s. Students will be expected to complete a final project that critiques elements of their own identity within the larger American context.

Prerequisites: A minimum grade of “B” or better is required in the student’s previous Social Studies course or approval by instructor.

ADVANCED PLACEMENT HUMAN GEOGRAPHY
(DP 2544) (5.0)
Grades 9, 10, 11, 12; 2 sem. 1 cr.

This is a good introduction for students ready to attempt an AP level course and curriculum. College credit may be given at the completion of the AP Exam. The course introduces students to the systematic study of patterns and processes that have shaped human understanding, use, and alteration of Earth’s surface. Students employ spatial concepts and landscape analysis to examine socioeconomic organization and its environmental consequences. They also learn about the methods and tools geographers use in their research and applications. Themes of study include; geography, population and migration, cultural patterns, political organization of space, agriculture, industrializa-

tion and economic development, and cities and urban land use.

Prerequisites: A minimum GPA of 3.0 from the previous year is required or permission from the instructor/Department Chair.

UNDERSTANDING 9/11 (DP 2529)
Grades 10, 11, 12 1 sem. ½ cr.

The course will examine why Al Qaeda attacked America on September 11th 2001. It will also examine the use of terrorism, in general, and the radical ideology developed by Osama bin Laden. Students will consider why individuals are attracted to this ideology and how they radicalize to violence. Emphasis will be centered around the development of radical movements in Egypt, Saudi Arabia, Sudan, Pakistan, and Afghanistan. Students will also explore how the United States addressed terrorism prior to 9/11 and the policy changes the US faced in its aftermath of the attacks. Specific events of 9/11 will be analyzed in great detail. Students will read from a variety of sources and view multiple media accounts. Students will be required to complete an extensive living history interview project. Other assignments may include presentations, projects, papers, discussions. A field trip is a required part of the course. An additional course fee may be assessed. Students with a particular interest in this subject should consider also enrolling in the ½ credit course The History of Terrorism and Extremism (DP 2435).

Prerequisite: An overall GPA of 2.8 is required or approval by instructor.

THE HISTORY OF TERRORISM AND EXTREMISM
(DP 2435)
Grades 10, 11, 12 1 sem. 1/2 cr.

This first semester course on terrorism and extremism explores the emergence of the use of terrorism as a tactic to advance social, political, and ideological agendas of radical groups and individuals. The course covers forms of terrorism during ancient times and focuses on modern terrorism starting with the “Reign of Terror” all the way through to present day forms of terrorism. Throughout the course we will investigate various terrorist/extremist organizations to determine the motivations, goals, tactics, ideologies, and impacts of each group. The purpose of this course will be to understand what drives people and groups to use violence to achieve their goals, how this strategy often ends in catastrophe with the heaviest burden being placed on the everyday person, and possible social solutions to help stop and/or prevent future forms of terrorism. Students with a particular interest in this subject should consider also enrolling in the ½ credit course Understanding 9/11

Prerequisites: A minimum grade of C or better in previous Social Studies course or approval by instructor.

THE ROAD TO CIVIL RIGHTS (DP 2901)
Grades 10, 11, 12 ½ cr.

This course is a summer offering that begins with a trip to the National Museum of African American History and Culture in the spring. Then, during the last week of June and first week of July, the students will travel to Nashville, Memphis, Selma, Montgomery, Atlanta, and Richmond. Students will read important works and visit museums and historic sites as

they come to understand the importance of the Civil Rights movement in America and reflect on their work through journals and podcasts. The final itinerary will be announced this Spring and there will be an organizational meeting with parents and participants. Expected cost is about \$1750 which will include all travel, lodging, some meals, and museum entry. A final price will be announced when the itinerary is finalized. This course is cross-listed in the Social Studies Department.

GENERAL PSYCHOLOGY (DP 2524)
Grades 11, 12 2 sem. 1 cr.

General Psychology is an introductory study of human behavior. Subjects of discussion and exploration include; why people are motivated, how individuals learn, an inquiry into the different schools of psychology, perception and environment, studies in ESP, theories of Psychology founders, aggression, and conditioning. Applications of these concepts to a student’s own experiences is emphasized. Classroom discussion, small experiments and audio-visual presentations are the chief devices used in instruction.

HONORS FOUNDATIONS OF PSYCHOLOGY
(DP 2543) (4.5)
Grades 11 and 12 1 sem. ½ cr.

This course covers a broader and more in depth study of human behavior than the other psychology courses offered. A research project and analysis may be included. However, the topics of study remain similar: psychological science, sensation and perception, thinking, sociocultural diversity, psychological disorders and treatment. All concepts will be learned through classroom discussion, presentations, and experiments and observations. Topics will include how to apply what is being discussed to the students’ own life experiences. The course is designed to be independent from the second semester (Spring) course *Honors History and Systems*. However, students should consider registering for both Psychology courses for a full credit, but it is not required.

Prerequisites: A minimum GPA of 3.0 from the previous year is required or permission from the instructor/Department Chair.

HONORS HISTORY AND SYSTEMS OF PSYCHOLOGY
(DP 2541) (4.5)
Grades 11 and 12; 1 sem. ½ cr.

This course covers a broader and more in depth study of human behavior than the other psychology courses offered. A research project and analysis may be included. However, the topics of study remain similar: research methods, bases of behavior, memory and learning, social interactions, life span development, motivation, and health. All concepts will be learned through classroom discussion, presentations, and experiments and observations. Topics will include how to apply what is being discussed to the students’ own life experiences. The course is designed to be independent from the first semester (Fall) course *Honors Foundations of Psychology*. However, students should consider registering for both Psychology courses for a full credit, but it is not required.

Prerequisites: A minimum GPA of 3.0 from the previous year is required or permission from the instructor/Department Chair.

ECONOMICS (DP 2321)
Grades 11, 12 1 sem. ½ cr.

This course is designed to provide an overview of the roles of the individual, business, government and foreign trade in American economy. The individual economic roles of earning income, consuming and performing as a citizen are examined along with consumer activities of buying, saving, borrowing and investing. The supply of money, banking systems, and monetary and fiscal policies are reviewed. Additionally, the course discusses current events and the stock market to connect economic fundamentals to what is happening today. (*This course is also listed in the Business Department.*)

ADVANCED PLACEMENT ECONOMICS
(DP 2421) (5.0) Grades 11, 12; 2 sem. 1 cr.

This full year AP course explores topics of scarcity, resource allocation, and efficiency, as well as rational decision making and the role of money. The course covers both Microeconomics (the behavior of individual consumers and companies) and Macroeconomics (the role of government and entire industries on the economy as a whole). Students of Economics not only learn essential concepts of business and finance, but also will begin to understand the role public policy has in shaping the American economy. This elective AP course must be taken concurrently with Government and does not count towards the required 3 Social Studies credits. At the end of the course students will be prepared to take both AP Macro and Micro Exams. (*This course is also listed in the Business Department.*)

Prerequisites: All students must have earned a “B” in Algebra 2, have either completed Pre-Calculus, or be taking Pre-Calculus concurrently. Seniors must have earned a B in U.S. History, Juniors must have earned an A in AP Human Geography or Honors World History.

MATHEMATICS

The Mathematics Department strives primarily to provide the student with a solid foundation in mathematics, an appreciation for the discipline, and the preparation he needs both for his ongoing education and for his adult responsibilities.

Each student will be taught to express himself and to communicate in the world of mathematics. In the early classes much emphasis is placed on study skills, critical thinking, and the writing of mathematical expressions. Real life applications are a large part of all courses. In the upper level courses the use of a graphing calculator is required.

Realizing various individual needs, abilities, and goals which a student brings to the classroom, the department strives not only to present the best possible programs, but also to motivate, to teach, to encourage and to guide all students in the pursuit of mathematical proficiency. Thus, the department offers a program of study which contains courses sophisticated enough to challenge the brightest of students, and at the same time, developmental courses to help those who show some math deficiency.

All students must complete four credits in mathematics to satisfy graduation requirements. These four credits must include specific courses required by the department, usually Algebra 1, Geometry, Algebra 2, and Pre-Calculus. The courses offered allow a student to work at his level of competence and to advance to high

levels of achievement as talent and ambition allow. The Mathematics Department, working in concert with the Counseling Center, assumes the responsibility for the placement of students in the various courses offered.

ALGEBRA 1, PART 1 (DP 3532)
Grades 9, 10; 2 sem. 1 cr.

This full-year course includes the four operations of real numbers, solving equations and inequalities, absolute value, polynomials, factoring, fractional equations, solving and graphing linear equations, solving systems of linear equations using three different methods.

ALGEBRA 1, PART 2 (DP 3534)
Grades 9, 10; 2 sem. 1 cr.

This course is a continuation of Algebra 1, Part 1. After a review of the fundamentals of linear (or degree 1) algebra, this course will then explore the following topics: laws of exponents, operations with polynomials, factoring, rational expressions, radicals, and solving and graphing quadratics.

Prerequisite: Minimum “C-” average in Algebra 1, Part 1.

ALGEBRA 1 (DP 3523) Grade 9; 2 sem. 1 cr.

This full-year course includes operations of real numbers, equations, polynomial operations, factoring, operations with fractions, linear functions, relations and graphs, open sentences with two variables, inequalities, and radicals.

HONORS ALGEBRA 1 (DP 3543)
Grade 9; 2 sem. 1 cr.

All the topics listed in Algebra 1 (3523) are covered in greater depth.

GEOMETRY (DP 3535) Grades 11, 12
2 sem. 1 cr.

This is a comprehensive full-year course covering all the topics of Euclidean Geometry with a less intense emphasis on proof-writing.

Prerequisite: Minimum “C-” grade in either Algebra 1 (3523), and Algebra 1 Part 2 (3534)

GEOMETRY (DP 3527)
Grades 10, 11, 12; 2 sem. 1 cr.

Euclidean Geometry is studied comprehensively for most of this course. Topics include postulates, deductive reasoning, theorems and proofs focusing on pairs of angles, parallel lines, angles of triangles and polygons, congruent and similar triangles, quadrilaterals and circles. The last unit in the course covers the fundamentals of radians, trigonometry function definitions, the unit circle, evaluating trig functions and right triangle trigonometry. A scientific calculator, TI-83 or TI-84 graphing calculator is required.

Prerequisite: Minimum grade of “C-” in Algebra 1 (3523).

HONORS GEOMETRY (DP 3547)
Grades 9, 10, 11; 2 sem. 1 cr.

This course covers the topics listed in Geometry (3527) in greater depth.

Prerequisite: Minimum grade of “B-” in Honors Algebra 1 (3543).

ALGEBRA 2 (DP 3623, 3633)
Grades 10, 11, 12; 2 sem. 1 cr.

This course begins with a review of fundamental algebraic structures, then transitions to a focus on function relationships, including features and translations of parent functions and their graphs. The course finishes with an advanced unit in trigonometry.

Prerequisite: Minimum “C-” grade in Algebra 1 and Geometry.

HONORS ALGEBRA 2 (DP 3643) (4.5)
Grades 10, 11; 2 sem. 1 cr.

This course covers the topics in Algebra 2 (3623) in greater depth.

Prerequisites: Minimum grade of “B-” in Honors Algebra 1 and Honors Geometry (3546).

TRIGONOMETRY (DP 3573)
Grades 11, 12; 2 sem. 1 cr.

This full-year course covers all the topics of trigonometry with special emphasis on strengthening algebraic, graphing, and problem-solving skills. A TI-83 plus or TI-84 plus graphing calculator is required.

Prerequisites: Algebra 1 (3523), Geometry (3535) and Algebra 2 (3623 or 3633)

PRE-CALCULUS (DP 3723)
Grades 11, 12 2 sem. 1 cr.

This full-year course covers advanced math topics preparing students for Calculus. The topics include a thorough review of Algebra with more emphasis on the theory of functions, polynomial, rational, exponential, logarithmic, trigonometric functions, and topics in analytic geometry. A TI-83 plus or TI-84 plus graphing calculator is required.

Prerequisites: Successful completion of Algebra 2 (3623 only) and a Geometry course, and approval of junior year math teacher and department chair.

HONORS PRE-CALCULUS (DC) (DP 3743) (4.5)
Grades 11, 12; 2 sem. 1 cr.

This rigorous and theoretical course includes coordinate geometry, polynomials, inequalities, functions, exponents and logarithms, polar coordinates, complex numbers, sequences and series, and an introduction to limits.

Prerequisites: Minimum grade of “B-” in Honors Algebra 2, and Honors Geometry.

ADVANCED PLACEMENT CALCULUS AB
(DP 3553) (5.0) Grade 12; 2 sem. 1 cr.

Topics include limits, continuity, differential and integral calculus, applications of the derivative including l’Hopital’s rule, extrema, and various methods of integration. This course also prepares students for the AP exam for Calculus AB. A TI-83 plus or TI-84 plus graphing calculator is required. The syllabus for this course has been approved by the College Board.

Prerequisite: Approval of the Honors Pre-Calculus Instructor.

ADVANCED PLACEMENT CALCULUS BC
(DP 3653) (5.0) Grade 12; 2 sem. 1.5 cr.

This course includes all topics taught in a one year college calculus course for mathematics, science and computer science majors. The first third of the course covers differentiation and applications, including related rate problems, curve sketching, max-min problems and numerical approximations for roots. The second third of the course covers integration and applications, including area, volume, arc length, surface area, work, and methods of integration. The last third of the course includes polars, parametrics and vectors. This one year course also prepares the student for the AP exam for Calculus BC. A TI-83 plus or TI-84 plus graphing calculator is required. The syllabus for this course has been approved by the College Board.

Prerequisite: Approval of the Honors Pre-Calculus Instructor.

STATISTICS (DP 3773) Grade 12; 2 sem. 1 cr.

This full-year course includes descriptive and inferential statistics, data analysis, descriptive measures and standard deviations, probability theory, sampling and normal distributions, linear regression and confidence intervals. A TI-83 plus or TI-84 plus graphing calculator is required.

Prerequisite: Minimum grade of “C-” in both Geometry and Algebra 2 (3623 only) and approval from current teacher.

ADVANCED PLACEMENT STATISTICS
(DP 3774) Grade 12; 2 sem. 1 cr.

Students will be introduced into the major concepts and tools for collecting, analyzing, and drawing conclusions from data. Students are exposed to four major themes: describing patterns from data, planning and conducting a study, explain random events using probability, and estimate population parameters and testing hypothesis. This course also prepares students for the AP exam in AP Statistics. A TI-83 plus or TI-84 plus graphing calculator is required. The syllabus for this course has been approved by the college board.

Prerequisite: Honors Geometry and Honors Algebra 2 and approval from Dept. Chair and current teacher.

**COMPUTER SCIENCES
AND ENGINEERING**

The Computer Science and Engineering Department strives to prepare students with a strong foundation in technology use for their educational purposes, both in high school and college. The courses offered allow students to learn to program as well as enhance opportunities to learn popular software applications and discover new applications on the rise.

Students who exhibit high aptitude and interest in the math and science fields are highly encouraged to pursue the advanced level courses in computer programming. These courses offer complete instruction in various programming languages and will assist students in the related fields of math, science and technology. Admission to these courses must be approved by the Department Chair or, in the case of Computer Programming 1, your current math teacher.

RESEARCH AND PRESENTATION
(DP 3815) Grades 10, 11, 12 1 sem. ½ cr.

This is a one-semester course designed to teach the student how to do effective research, presentation, communication, writing, collaboration, and programming using the tools available today. The class covers a range of topics which include but are not limited to: Internet research, bibliography methods and tools, copyright issues, media creation, computer literacy, programming, game theory & creation, effective writing techniques, presentation topics & style, and more. Because DeMatha is a Google Apps for Education school, students will use the GAFE tools for much of the work done. Students will also study methods to integrate current technologies into their education and for group collaboration and study. This course is recommended for the student who is interested in gaining a fundamental familiarity of computer applications & the creation of content as they relate to college and high school coursework. Depending on interest, Research and Presentation is also offered for original credit as an independent study course in the summer.

HTML (DP 3820)
Grades 10, 11, 12; 1 sem. ½ cr.

A one-semester course which introduces the student to the basics of programming using HTML. Students will develop and maintain web pages using HTML.

ENGINEERING DESIGN AND PROBLEM SOLVING
(DP 3923)
Grades 10, 11, 12; 2 sem. 1 cr.

This course is designed to challenge students to think “outside the box” and solve problems in various fields of engineering. Students will use the engineering design process, both individually and in groups, to innovate and engineer solutions to practical problems. Students enrolled in this class must complete safety training prior to participating in class projects and experiments.

Prerequisites: Minimum “B” average in Algebra 2 and enrollment in Geometry

HONORS ENGINEERING DESIGN AND PROBLEM SOLVING (DP 3943) (4.5)
Grades 10, 11, 12; 2 sem. 1 cr.

This rigorous one-year course will introduce students to engineering problems with a heavy focus in mathematics. Students are tasked with justifying their solutions using mathematical models. This course is designed to prepare students for the rigor of college-level engineering.

Prerequisites: Minimum “B” average in Honors Algebra 2 or permission of the instructor.

ROBOTICS (Fall only) (DP 3910) 1 sem. ½ cr.
10, 11, 12

In this course, students will apply their knowledge of engineering, computer science, and technology to the field of robotics. Students will learn about mechanisms to increase mechanical advantage and efficiency as well as general robotics controls and programming. This one (1) semester class includes participation in a robotics competition, consisting of difficult challenges and strict design requirements.

Outstanding groups may be eligible to advance to a championship tournament, taking place in the early spring. Students must have a laptop.

Prerequisites: Minimum “B” average in one (1) of the following courses: Foundations in Engineering, Honors Algebra 2, or Computer Programming 2. Special permission may be given by the course instructor. Sophomores must be taking a geometry course concurrently.

ADVANCED ROBOTICS (Spring only) (4.5)
(DP 3911) 1 sem. ½ cr. 10, 11, 12

This semester course introduces students to autonomous systems and mechatronics, using micro-controllers and a wide variety of sensors. Students will design autonomous systems to complete a variety of challenges. This rigorous one (1) semester course may only be taken once for credit. Students must have a laptop.

Prerequisite: Minimum B average in Robotics.

INTRODUCTION TO PROTOTYPING
(DP 3914) Grades 10, 11, 12; 1 sem. ½ cr.

This one semester course introduces students to rapid prototyping techniques, including 3D Printing (additive manufacturing) and Laser Cutting/Engraving (subtractive manufacturing). Students will learn to create complex designs using computer aided design (CAD) software and will implement it in solutions to various problems.

ADVANCED ENGINEERING DESIGN
(DP 3953) (4.5) Grades 11, 12; 1 sem. ½ cr.

This one-semester independent study course requires students to not only think “outside the box,” but ultimately to redesign the box. Students will identify real-world problems that can be solved using the engineering design process. Students will apply their knowledge of mathematics and sciences to generate unique and innovative solutions to each problem and will be introduced to advanced engineering practices.

Prerequisite: Minimum “B” average in either Engineering Design and Problem Solving or Robotics.

ADVANCED COURSES IN COMPUTER SCIENCES AND ENGINEERING

ADVANCED TOPICS IN HTML (DP 3821)
Grades 10, 11, 12; 1 sem. ½ cr.

A rigorous one-semester independent study course in which students use advanced HTML techniques to design and maintain web pages and web sites. It will cover tables, images, cascading style sheets, and forms extensively. This course may only be taken once for credit.

Prerequisite: Minimum “B” grade in HTML; approval of the instructor.

COMPUTER PROGRAMING 1 (DP 3835)
(4.5) Grades 10, 11, 12 1 sem. ½ cr.

A rigorous one-semester course which introduces the student to the elements of computer programming through the development of projects, apps, and simple games. This is a hands-on course designed so that most of the the computer-based program development will be done in the classroom. This course may only be taken

once for credit.

Prerequisites: Minimum “B” average in Honors Algebra 1 or Honors Algebra 2 and/or approval of mathematics teacher.

COMPUTER PROGRAMING 2 (DP 3836)
(4.5) Grades 10, 11, 12 1 sem. ½ cr.

A rigorous one-semester course in which students will use advanced programming techniques to maintain arrays, computer files and create simple graphics. This course is usually taken second semester and may only be taken once for credit.

Prerequisite: Minimum “B” average in Computer Programming 1.

ADVANCED TOPICS IN PROGRAMMING 1
(DP 3845) (4.5) 1 sem. 1 cr. Grades 11, 12

Through the development of apps, games, and programming projects, students will gain a stronger understanding of Object Oriented program design and development. This rigorous one-semester independent study course introduces the student to more programming languages and development environments.

Prerequisite: Minimum B average in Computer Programming 2.

ADVANCED TOPICS IN PROGRAMMING 2
(DC) (DP 3846) (4.5)
Grades 11, 12; 1 sem. ½ cr.

Through the further development of apps, games, and programming projects, students will gain a stronger understanding of Object Oriented program design and development. This rigorous one-semester independent study course introduces the student to database concepts, advanced programming algorithms, and development environments.

Prerequisite: Minimum “B” average in Advanced Topics in Programming 1.

ADVANCED PLACEMENT COMPUTER SCIENCE
(DP 3850) (5.0)
Grade 11, 12; 2 sem. 1 cr.

A rigorous two-semester independent study course in which students use advanced programming techniques to design and develop programs. The course will cover Object Oriented Program Design, program implementation and analysis, standard data structures, standard algorithms, and major hardware and software components of computer systems. This course may be taken only once for credit. The syllabus for this course has been approved by the College Board.

Prerequisite: Minimum average of “B” in Computer Programming 2; approval of Department Chair.

ADVANCED PLACEMENT COMPUTER SCIENCE PRINCIPLES
(DP 3852) (5.0)
Grades: 9, 10, 11, 12 2 sem. 1 cr.

This independent study course introduces students to the central ideas of computer science, instilling the ideas and practices of computational thinking and examining how computing changes the world. The rigorous course promotes deep learning of computational content, develops computational thinking skills, and

engages students in the creative aspects of the field.

MOBILE APP DESIGN AND DEVELOPMENT
(DP 3855)

Grades 9, 10, 11, 12; 1 sem. 1/2 cr.

In this one-semester independent study course, students will design and develop mobile applications. Students will be introduced to app creation, block programming, interface design, interactivity, and advanced programming concepts through online tutorials and lessons.

Prerequisite: Consent of Department Chair.

SEMINAR IN COMPUTER SCIENCE
(DP 3851) (4.5) Grade 12 2 sem. 1 cr.

A rigorous two-semester independent study course in which students use advanced programming techniques to design and develop programs. Working with the department chair, students will be allowed to explore varied topics and programming languages.

This course is designed to give the student experience in handling advanced programming techniques used to design and develop programs. Following research, design and development of a programming project, each student will present his project to the instructor and department chair. Selected topics may be in the area of the programming algorithms, game design and development, or application design and development, according to the discretion of the student and his advisor. The only schedule requirement is that the student meet with his advisor on a regular basis. No regular or daily classes are provided because of the independent nature of this course.

Prerequisite: Minimum average of “B” in Advanced Topics in Programming or consent of the Department Chair.

SCIENCES

When I heard the learn'd astronomer,
When the proofs, the figures were ranged in
columns before me,
When I was shown the charts and diagrams, to
add, divide and measure them,
When I sitting heard the astronomer where
he lectured with much applause in the lecture
room,
How soon unaccountable I became tired and
sick, till rising and gliding out I wander'd off
by myself
In the mystical moist night air, and from time to
time
Looked up in perfect silence at the stars.
- Walt Whitman

Science is concerned with the general conditions, laws and order which are observed to regulate the physical phenomena of the universe. It is the goal of the Department of Sciences to assist its students in acquiring the necessary analytical tools by which contemporary science interprets, understands and explains the human experience of physical reality. This can only be achieved by being faithful to the rigid criteria of a scientific methodology currently employed by the scientific community.

At the same time, however, twentieth-century developments in scientific thought have brought about an outlook that sees the universe as no longer a simple mechanism that merely obeys a rigid set of empirical laws. Although science in practice may seem to have limited itself only to describing the facts, it is the application of these

“facts” that gives meaning to science.

The Department of Sciences becomes contiguous and integrative with the total Catholic education enterprise at DeMatha by striving to relate the sciences with a wide range of experiences within the school environment. This promotes the exposure of students to the larger dimensions of the human experience of which science is a component. The Department of Sciences participates in the school's effort of building a Christian outlook on life with its commitment to Christian values for living in a world of conflicting views.

Each student is required to earn three credits in science to meet the minimum requirement for graduation (a credit in biology is required by the State of Maryland). It is the philosophy of the Department of Sciences that it is crucial that students be well prepared in the basics of science prior to their graduation. This belief dictates that a core curriculum comprised of a course in each of the following: biology, chemistry and physics is mandated. The program of studies may be adapted to meet the academic needs of the individual student upon the recommendation of the Department of Sciences. This strong foundation will serve to prepare our students for both their post-secondary studies as well as life in a time when an understanding of science is crucial. It is recommended that four credits of science be earned and the Department offers a variety of courses to meet this recommendation.

HEALTH (DP 9123) Grade 9 1 sem. ½ cr.

Health is designed to give students an understanding of the concept of wellness. In the context of this course this term refers to the well being of the body, of the mind and of relationships among people. The course will focus on helping students make well informed decisions to maintain their health. The approach that will be implemented in the course to help students make these decisions will be to reinforce key concepts that will allow students to weigh their options and make responsible decisions that promote a healthy lifestyle. (There is a book rental fee of \$25.00 for the year.)

BIOCHEMISTRY (DP 4126)
Grade 9 2 sem. 1 cr.

This course is open only to freshman and is taken in sequence with Active Physics to satisfy a portion of the full one credit science requirement for freshman year. This course will introduce students to basic atomic structure and provide students with insight into the chemical foundations of life. It will also serve to provide students with an understanding of the biochemical foundations of genetics. (Biochemistry and Active physics are the only one semester courses that count towards the three required credits in science for graduation.)

BIOLOGY (DP 4223) Grade 10 2 sem. 1 cr.

This course is a survey of the major themes of biological science, including the characteristics of living organisms, bio-chemistry, the structure and function of cells, genetics and human heredity, evolution, the five kingdoms of life forms, selective anatomy and physiology of diverse organisms, and the ecological relationships in biological communities. Contemporary issues of human reproduction, disease, health and environmental integrity are investigated. Laboratory exercises reinforce material covered in lectures, and students are trained in the pro-

cedures of the scientific method.

HONORS BIOLOGY (DP 4243) (4.5)
Grades 9, 10, 11, 12 2 sem. 1 cr.

Honors Biology examines seven major areas of biological studies: ecology, the cellular basis of life, principles of inheritance, principles of evolution, taxonomy and diversity, plant structure and function, and animal structure and function. While a wide range of biological studies are examined, the course uses an ecological approach throughout. Laboratory exercises are an integral part of the course. All students are required to complete a written thesis devoted to a specific biological topic approved by the instructor and defend it orally.

Prerequisites: Minimum grade of “B” in previous science course work; permission of the instructor and the admissions committee after a review of past academic records and standardized test.

ADVANCED PLACEMENT BIOLOGY
(DP 4653) (5.0) Grades 11, 12 2 sem. 1 ½ cr

AP Biology prepares students to meet many of the objectives of a college general biology course. We begin with an intensive exploration of the bio-chemistry of cells: their structures, energy storage and use, and their many control mechanisms. Students will then investigate cell division, sexual reproduction, and classical and modern genetics, with an emphasis on applications of biotechnology. Second semester preparation for the AP exam will include a review of evolution, taxonomy, the structures and functions of living organisms, and their ecological relationships, as well as selected topics concerning the anatomy and physiology of humans. Intensive labs from the AP Biology curriculum will supplement material covered in class. Students who elect to take the AP exam will receive additional instruction and practice prior to the test in May. The syllabus for this course has been approved by the College Board. Prerequisites: Minimum 3.0 general average; C average in Chemistry; approval of science instructors. A minimum “B” average in Biology, with Honors Biology recommended.

CHEMISTRY (DP 4524)
Grades 10, 11, 12; 2 sem. 1 cr.

As citizens of the global community, students need a solid foundation in scientific principles--including chemical principles--to help us better understand the world around us, as well as contribute positively to that world. This course is designed to develop a foundation of chemical principles with which they can begin to understand the processes that make up the world. To develop these principles students examine such diverse topics as dimensional analysis, quantum mechanics, stoichiometry, periodicity of electron configurations, and the mole concept will be covered. Laboratory experiences, including safety, are an integral part of this course. These laboratory experiences will serve not only to reinforce and clarify concepts, but to demonstrate applications of concepts as well. During the course students will be encouraged to be active learners and to try to understand concepts and not to memorize solutions.

HONORS CHEMISTRY (DP 4543) (4.5)
Grades 10, 11, 12 ; 2 sem. 1 cr.

Honors Chemistry covers the same concepts

as regular chemistry plus additional material but with more depth than in the regular level course. Honors chemistry is taught as a pre-requisite course for Advanced Placement Chemistry. The Advanced Placement Chemistry course will be taught with minimal review of honors level material, but rather as a continuation of higher-level concepts that follow honors chemistry. Students are expected to supplement class work with in-depth laboratory work.

Prerequisites: Minimum “B” average in both Honors Biology and Honors Algebra 1 or Algebra 1 (3523 only); approval of instructor.

ADVANCED CHEMISTRY
(DP 4553) (5.0) Grades 11, 12 2 sem. 1 ½ cr.

A detailed investigation of the laws and principles of chemistry and a descriptive study of the elements are covered in this course. Topics include: atomic structure, stoichiometry, gases, solids, liquids, solutions, kinetics, equilibrium, electro-chemistry, thermodynamics, and a study of the elements. This course includes a weekly lab of two to three hours. This course is a continuation of Honors Chemistry. The syllabus for this course has been approved by the College Board.

Prerequisites: Minimum “B” average in Honors Chemistry (A average in regular chemistry with the approval of the Department Chair) and minimum B average in Honors Algebra 2. Minimum 3.0 overall average in science course work and permission of the instructor.

PHYSICS (DP 4623) Grades 11, 12 2 sem. 1 cr.

This course provides students with a conceptual understanding of the relationships between various physical phenomena they encounter in the world. Classical mechanics (motion, energy, and the application of forces), electromagnetism and wave phenomena (light and sound), and electricity and magnetism will be investigated. There will be applications of basic algebra over the course of the year, as well as subjects involving geometry and trigonometry (for which instruction will be provided). The primary objective of these applications is to show that math can be used as a tool not only to solve problems, but to achieve understanding. The course develops an understanding of physics through observation, analysis and thought. Students will perform a series of labs designed to reveal the relationships studied in class.

Prerequisites: Minimum 2.0 combined average in mathematics and science. Algebra 2, plus Geometry (may be taken concurrently) Approval of science instructors.

HONORS PHYSICS (DP 4643) (4.5)
Grades 11, 12; 2 sem. 1 cr.

This course offers a more intensive and in-depth approach to the material covered in the regular physics course, with more expectations placed on the student in the area of problem-solving. Credit will be offered for either Honors Physics or Advanced Placement Physics, but not both. Honors Physics is not a pre-requisite nor is it a foundation course for AP Physics.

Prerequisites: Minimum 3.0 combined average in mathematics and science; Algebra 2, Geometry (can be taken concurrently); approval of the instructor.

ADVANCED PLACEMENT PHYSICS
(DP 4453) (5.0) Grade 12 2 sem. 1 cr.

This course is an analytical and math-oriented approach to physics for students who have shown superior achievement and interest in mathematics and science. Students electing this course should have achieved at least a “C” average in honors level mathematics and science courses and should be taking Calculus concurrently. This course is recommended for high-achieving students who wish to major in engineering or science in college. Topics covered include: a study of kinematics and dynamics in one and two dimensions by means of vector analysis, Newton’s laws and the conservation laws. The syllabus for this course has been approved by the College Board.

Prerequisite: Pre-Calculus. AP Calculus (must be taken concurrently). Overall average of 3.0.

MARINE BIOLOGY (DP 4657)
Grades 11, 12; 2 sem. 1 cr.

This course will examine life in the open ocean, estuaries and coral reefs. The evolutionary relationships of present day organisms to their marine ancestors will be presented in the course. The importance of phytoplankton in marine ecosystems will be studied. The interactions of organisms to one another in marine food webs will form an integral part of the course. Present day threats to the marine biome will be discussed throughout the course.

Prerequisites: Biology and Chemistry

SEMINAR AND INVESTIGATION DP (4652)
(4.5) Grades 10, 11, 12 1 sem. ½ cr.

This course is designed to give the student experience in handling scientific materials and techniques involved in research investigation. Following a thorough investigation employing the scientific method, each student will report his findings in the form of a scientific paper and is required to present a seminar to the science department faculty. Selected topics may be in the area of the physical sciences, biological sciences and chemical sciences, according to the discretion of the student and his advisor. The only schedule requirement is that the student meet with his advisor on a regular basis. No regular or daily classes are provided because of the independent nature of this course.

Prerequisites: Overall average of 3.0. Consent of the instructor and Department Chair. Students are required to submit a research proposal by May 1 prior to the academic year they plan to take the course for approval. Students who do not complete this requirement will be dropped from the course on June 1.

HONORS HUMAN ANATOMY AND PHYSIOLOGY (DC) (DP 4255) (4.5) Grades 11, 12 2 sem. 1 cr.

This course will examine the structural and functional traits that are unique to, and shared with other organisms by the human organism. The characteristics and needs of the human body will be defined and the manner in which the human body is organized to accomplish life processes will be examined. The course is based on the belief that learning occurs best when the learner is active rather than passive. In an effort to enhance this active learning the

course will focus to a great extent on laboratory work. Dissection of not only a representative mammal, but preserved organs and tissues of humans will be a vital part of the course. Students will be required to complete an independent study project approved by the instructor as part of the requirements for the course.

Prerequisites: Minimum grade of “C” in both biology and chemistry and permission of the instructor.

ASTRONOMY (DP 4824) Grades 11, 12
1 sem. ½ cr.

According to Aristotle, “Truth to be demonstrated and science in general depend on the first principles, for science is impossible without reasoning.” This course will focus on the scientific principles involving stars, planets, moons, and other celestial bodies in our universe. Mathematical applications will include celestial motion, gravity concepts, Newton’s laws of motion, and Kepler’s laws of planetary motion. Classroom concepts will be reinforced through the use of videos, posters, photographs, and laboratory work. Students who register for this course must be willing to participate in a field trip which will extend beyond the normal school day and will be required of all students. This course is open to students as a fourth year elective in science.

Prerequisites: Two (2) years of science, one (1) of which must have been biology and the other, chemistry. Students must also have completed a full course in algebra, with the recommendation that geometry/ trigonometry either have been completed or taken concurrently.

ADVANCED PLACEMENT ENVIRONMENTAL SCIENCE (DP 4663)
(5.0) Grades 11, 12 2 sem. 1 cr.

The Chinese ideogram for “crisis” combines the character wei, meaning danger, with the character ji, denoting opportunity. This is an apt way to look at the current environmental status of the biosphere. This course will look at how humans are interconnected with natural systems. Students will become familiar with basic principles of environmental science, public policy and health, environmental ethics, environmental law, toxic wastes, and ways to solve current environmental problems. Students will examine environmental case studies and current environmental laws. All students will complete a field study as a requirement of this course. This project will require students to participate in field work beyond the normal academic day. The syllabus for this course has been approved by the College Board.

Prerequisites: Biology and Chemistry (honors level recommended) with a “B” or higher average in each. Permission of the instructor.

BIOTECHNOLOGY (DP 4743) (4.5)
Grades 11,12; 1 sem. ½ cr.

This course will examine the research and development that has led to our current advances in the field of biotechnology. Students will become familiar with current and potential applications of biotechnology. The purpose and achievements of the Human Genome Project will be discussed. Students will have the opportunity to examine the societal, legal, and environmental implications of this technology.

This course will be a laboratory based course requiring intensive laboratory work. All students will be expected to complete all of the assigned laboratory experiences. Some laboratory activities will require student participation beyond the normal classroom time. All students will be required to successfully carry out a laboratory experiment focused on the polymerase chain reaction (PCR) as the final laboratory project for this course.

Prerequisites: A grade of “B” or higher in both biology and chemistry course work (honors suggested). Permission of instructor.

FORENSIC SCIENCE (DP 4825)
Grades 11,12; 1 sem. ½ cr.

This course is designed to provide students with a fundamental understanding of the application of science to law. Half the semester will focus on forensic chemistry including glass, soil, hair, fiber and paint analysis. These techniques will be explained and applied to the current legal system. This course is open to students as a fourth year science elective.

Prerequisites: Students must have completed Biology and Chemistry prior to this class with a grade of “C” or higher in each.

WORLD LANGUAGES

Completion of a minimum of three levels of the same world language is required for all students for graduation from DeMatha Catholic High School. This course of study affords students the time needed to thoroughly develop their language skills. Although many colleges, universities and institutions of higher education with more competitive entrance standards look more favorably on students with three years of a world language, four years or more of language study are recommended for students with the appropriate verbal skills. In addition, students are expected to continue Level 1 language study until it is passed with at least a “C” average before moving on to Level 2 (see individual course descriptions).

Placement in one of the two programs offered is determined by the following guidelines:

Honors: A minimum “B” average in English and verbal standardized test scores in the 75th percentile or above.

College Prep: A minimum “C” average in English and verbal standardized test scores in the 50th percentile or above.

Please note that these are only guidelines and that placement in a particular program is made based on a student’s individual record at the discretion of the Counseling Center, the department chair, and/or appropriate teachers. No student transfers from one level to another will be allowed after the end of the first quarter.

With all of this in mind, the World Languages Department offers the student an opportunity to acquire the tools with which he might communicate with other peoples and other cultures. In addition to learning to understand, speak, read and write a foreign language, the student will learn to appreciate the cultural differences and recognize the similarities which all people share, as well as develop a sense of social concern and a broader understanding of our global community.

HONORS FRENCH 1 (DP 5323) (4.5)
Grades 9, 10, 11; 2 sem. 1 cr.

This course varous topics in French as a foundation for more rapid progress later. It provides the student with the fundamentals of French grammar and the basic principles of pronunciation, acquainting the student with the basic structures of the French language to the fullest extent possible at this level. The student is trained to use these structures easily and correctly within a carefully defined vocabulary range, while enabling the students to incorporate these structures in simple conversations on a variety of topics of immediate interest to them, such as home, school, family, sports, shopping, etc. Finally, this course provides the student with the skills necessary to read and write within reasonable limits including the use of the common regular and irregular French verbs in the present, past and future tenses.

Prerequisites: 3.0 general average and recommendation of Counselor.

HONORS FRENCH 2 (DP 5324) (4.5)
Grades 10, 11, 12; 2 sem. 1 cr.

This course introduces all those resources required for practical oral and written communication in French. Grammatical structures introduced in the first year are reviewed thoroughly, and new structures are introduced systematically and in logical sequence. Every rule is elucidated by examples which will serve as models for sentence construction. Parts of speech are treated separately and the student is presented with a complete picture of each part of speech in itself and of its function in the sentence. Special attention is given to the complex problems of tense structure and use. Oral ability continues to be stressed, with work in this area based on the themes and vocabulary presented in textbook chapters.

Prerequisite: Minimum “C” average in Honors French 1.

HONORS FRENCH 3 (DP 5325) (4.5)
Grades 11, 12; 2 sem. 1 cr.

In French 3 major emphasis is given to developing the student’s ability to read with direct comprehension a variety of selections from the textbook dealing with life in France and French speaking countries. At the same time, the student’s listening, speaking and writing skills are strengthened by varied types of oral and written work. Considerable attention is also paid to increasing rapidly the student’s active control of vocabulary and idioms and to strengthening his ability to use correctly and with fluency the basic structures of the language.

Prerequisites: Minimum “C” average in Honors French 2 and the instructor’s approval.

ADVANCED PLACEMENT FRENCH LANGUAGE AND CULTURE (DP 5353)
(5.0) Grades 10, 11, 12; 2 sem. 1 cr.

Advanced Placement French Language and Culture is a college level course that allows students to receive advanced placement and/or college credit at a participating college or university after successful completion of the College Board Advanced Placement Test. Six major cultural themes encompassing the French speaking world, World Challenges, Science and Technology, Contemporary Life, the Public

and Private Self, Family Life and Community, and Esthetics, will be explored in depth. Testing by the College Board will use these themes to structure the exercises used to test reading, listening, speaking and writing on the AP exam. The syllabus for this course has been approved by the College Board.

Prerequisites: Minimum “B” average in Honors French 3 and approval of the instructor.

HONORS FRENCH 5 (DP 5327) (4.5)
Grades 11, 12; 2 sem. 1 cr.

Students taking Honors French 5 will pursue a course of independent study in which they will sample representative literature of French authors beginning with the Middle Ages and continuing through the twenty first century. In addition to doing all required readings in French, the students will be exposed to the lives of the authors read to better understand their places in, and contributions to, the rich history of French literature. A variety of genres will be read and studied including the short story, drama and poetry. Students will meet weekly with the instructor discuss their readings and will be tested regularly on their comprehension.

Prerequisites: Successful completion of AP French Language and Culture and permission of the instructor.

HONORS FRENCH 6 (DP 5328) (4.5)
Grades 11, 12; 2 sem. 1 cr.

Students taking Honors French 6 will pursue a course of independent study in which they will continue the study of French authors begun in Honors French 5. During the first semester he study will expand beyond French authors to those in other francophone regions such as Africa and Canada. A variety of genres will be read and studied. During the second semester at least one novel will be read. Students will meet weekly with the instructor discuss their readings and will be tested regularly on their comprehension of the works read.

Prerequisites: Successful completion of AP French Language and Culture, Honors French 5, and permission of the instructor.

SPANISH 1 (DP 5133) Grade 10, 11
2 sem. 1 cr.

Spanish 1 will cover the four basic language skills: reading, writing, listening and speaking, but at a slower pace than the Spanish 1 course. The grammar will be basic and the concepts presented will be reinforced by practicing and developing the four skills mentioned above. Each chapter will have as its theme some aspect of the cultures of the Spanish-speaking countries of the world.

Prerequisites: Recommendation of the English Department in consultation with the World Languages Depart. and the Counseling Center.

SPANISH 2 (DP 5134) Grades 10, 11, 12
2 sem. 1 cr.

This course continues the Spanish language acquisition begun in Introduction to Spanish. Level 2 provides all of the elements for competence in more advanced language usage and prepares students for their first formal proficiency testing. The second year is designed to broaden the students level of achievement in basic skills, with special emphasis on communication. Through topical contexts, students will

also expand their vocabulary, their control of structure and their ability to communicate about their daily lives, express their opinions and supply realistic information.

Prerequisite: “C” average in Spanish 1 (DP 5133).

SPANISH 3 (DC) (DP 5135) Grades 11, 12
2 sem. 1 cr.

Spanish 3 continues the program established in Spanish 1 and Spanish 2. This third year is designed to further broaden the skills of listening comprehension, speaking, reading, writing, and translating. New and more complex vocabulary, verb tenses and grammatical structures are introduced to enable the student to read and write more complex sentences in the target language as well as express their opinions verbally.

Prerequisite: “C” average in Spanish 1 (DP 5133) and Spanish 2 (DP 5134).

SPANISH 1 (DP 5123)
Grades 9, 10, 11 2 sem. 1 cr.

Spanish 1 is a beginning class in which the student develops basic skills in listening, speaking, reading and writing. The course introduces beginning level vocabulary, verbs and grammar by means of dialogs, conversations and readings. The culture of the people in Spanish-speaking countries is an integral part of the program.

Prerequisites: Minimum overall “C” average and recommendation of Counselor.

HONORS SPANISH 1 (DP 5223) (4.5)
Grades 9, 10, 11; 2 sem. 1 cr.

This honors course in Spanish 1 is a flexible, balanced program of studies designed to develop the skills of listening, speaking, reading and writing. This course covers more grammatical points and vocabulary than the regular Spanish 1 course, and more emphasis is placed on writing and translating skills. These objectives are achieved by means of dialogues, conversations, oral presentations, readings, translations, written exercises and composition work designed to practice the grammatical concepts and build vocabulary and fluency.

Prerequisites: Minimum overall 3.0 average and recommendation of Counselor.

SPANISH 2 (DP 5124)
Grades 10, 11, 12 2 sem. 1 cr.

This course continues the program of study begun in Spanish 1. Students continue to develop their skills in listening, speaking, reading and writing at the intermediate level, and build their vocabulary and control grammatical structures.

Prerequisite: “C-” in Regular Spanish 1 or a “C” in Honors Spanish 1.

HONORS SPANISH 2 (DP 5224) (4.5)
Grades 10, 11, 12 2 sem. 1 cr.

This honors course in Spanish 2 continues the program of study begin in Spanish 1 to develop the skills needed for effective oral and written communication. The student builds his vocabulary further and is introduced to intermediate level grammatical concepts and verb forms. There is an increased emphasis on speaking and reading the language.

Prerequisite: Minimum “C” average in Honors Spanish 1 (DP 5223).

SPANISH 3 (DP 5125) Grades 10, 11, 12
2 sem. 1 cr.

Spanish 3 continues the program established in Spanish 1 and Spanish 2 and broadens the skills of listening comprehension, speaking, reading, writing and translating. New and more complex vocabulary, verb tenses and grammatical structures are introduced to enable the student to expand his ability to listen to, speak and read the language. By the end of the year the student should be able to read and write more extended sentences and paragraphs as well as be able to engage in more complex discourse.

Prerequisite: “C-” in Regular Spanish 2 or a “C” in Honors Spanish 2.

HONORS SPANISH 3 (DP 5225) (4.5)
Grades 10, 11, 12; 2 sem. 1 cr.

Honors Spanish 3 builds on the foundations developed in Spanish 1 and 2. Major emphasis is given to increasing the student’s control of vocabulary and idioms and to strengthening his ability to use the basic structures of the language correctly and with fluency. The student’s listening, speaking, reading and writing skills are strengthened through a variety of oral and written activities including oral presentations, discussion classes, composition work and readings. Advanced grammar topics and verb tenses are also presented.

Prerequisites: Minimum “B-” average in Honors Spanish 2 (DP 5224) and approval of instructor.

SPANISH 4 (DP 5226)
Grades 11, 12; 2 sem. 1 cr.

Spanish 4 builds on the previous three years of study. Major emphasis is given to continuing to develop listening and speaking skills. Students will learn additional vocabulary, will increase their mastery of grammar and verb forms, and will submit short writing assignments. They will improve their speaking skills by writing and performing dialogs and skits. The student’s listening skills will be increased by listening to a variety of taped materials.

Prerequisite: Minimum “B” average in Regular Spanish 3.

HONORS SPANISH 4 (DP 5227) (4.5)
Grades 11, 12; 2 sem. 1 cr.

Honors Spanish 4 covers all of the topics in Spanish 4 with a greater emphasis placed on student writing and speaking skills. Honors students are additionally required to complete individual projects as assigned by the instructor.

Prerequisites: Minimum B average in Honors Spanish 3. Minimum A- average in Spanish 3.

Note: Honors Spanish 3 students may only register for Honors Spanish 4 or Advanced Placement Spanish. No student may change levels once placed in Honors Spanish 4.

ADVANCED PLACEMENT SPANISH LANGUAGE AND CULTURE (DP 5253) (5.0)
Grade 11, 12; 2 sem. 1 cr.

Spanish 4 is an advanced level course which al-

lows the student to pursue college level studies in Spanish. All facets of grammar, verb tenses and usage, and sentence structure are comprehensively reviewed and expanded. The student writes short themes and longer essays to expand his writing ability. Conversational skills are further developed through oral reports and class discussions. The student will read original selections from Spanish and Latin American literature and contemporary writing. By mastering the above skills the student will be prepared to take the College Board Advanced Placement Spanish Language test during the second semester, which, upon successful completion, will qualify him for advanced placement and/or credit at a participating college or university. The syllabus for this course has been approved by the College Board.

Prerequisites: Minimum “B” average in Honors Spanish 3 and approval of instructor.

HONORS LATIN 1 (DC) (DP 5523) (4.5)
Grades 9, 10, 11, 12; 2 sem. 1 cr.

Honors Latin 1 is a dual enrollment course - all students in the class are eligible to receive 3 college credits from Seton Hill University. This course provides an innovative approach to learning Latin while fostering appreciation for ancient Roman culture. Language instruction will focus upon the development of translation and reading skills, implementing both regular classwork as well as internet activities. In the process, the student will also gain a greater mastery of English vocabulary deriving from Latin roots, which may lead to improved performance on the SAT exam. Finally, the course provides an opportunity for students to study the many aspects of the ancient Roman world (classical, ecclesiastical) and how it has affected the modern world. Students will also learn about Roman myth and the Greek / Roman gods. Students are not expected to speak Latin - the class focus is on reading and translating.

Prerequisites: Minimum overall 3.0 average.

HONORS LATIN 2 (DC) (DP 5524) (4.5)
Grades 10, 11, 12; 2 sem. 1 cr.

Honors Latin 2 is a dual enrollment course - all students in the class are eligible to receive 3 college credits from Seton Hill University. Honors Latin 2 builds upon the groundwork laid by the successful completion of Honors Latin I. Students will continue to develop vocabulary and grammatical skills. They will also become more proficient in reading, writing, and translating. The students will gain further mastery of English vocabulary deriving from Latin roots which may lead to improved performance on the SAT exam. Students will read adapted works from a variety of authors and will also begin to translate unadapted works. The cultural component of this class will focus on the end of the empire in the west and the time after the fall of Rome up through the middle ages. Both Christianity and Roman religion will be studied through the reading of various authors.

Prerequisites: Minimum “C” average in Honors Latin 1 and approval by the instructor.

HONORS LATIN 3 (DC) (DP 5525) (4.5)
Grades 11, 12; 2 sem. 1 cr.

Honors Latin 3 is a dual enrollment course - all students are eligible to receive 3 college credits from Seton Hill University. This course completes the student’s preparation to read

unadapted Latin prose and poetry. Students will read unadapted works from a wide variety of authors including Ovid, Cicero, and Augustine. Students will also read parts of the Vulgate. Students will gain further mastery of English vocabulary deriving from Latin roots, which may lead to improved performance on the SAT exam. The cultural component of the course will again focus upon the human element of Ancient History, bringing great and not quite so great figures to life again from the written page.

Prerequisites: Honors Latin 1 and 2 with a grade of “B” and/or permission of instructor.

ADVANCED PLACEMENT LATIN 4 (DP 5553) (5.0) Grades 11, 12; 2 sem. 1 cr.

AP Latin 4 enables the student to pursue college level studies in Latin. The central focus of the course will be either the Aeneid of Vergil for the AP Vergil exam or a wider selection for the Latin Literature AP exam. Students will be expected to read and understand the written Latin while appreciating the cultural and historical climate in which the text was written. Students will also be expected to continue the advice *doce ut discas* (teach in order to learn) by serving as teaching assistants for second year Latin students. Students will be prepared to take the College Board Advanced Placement Test in Latin. If too few students enroll in this course to make it viable, it may be offered as independent study, or not at all. The syllabus for this course has been approved by the College Board.

HONORS KOINE/NEW TESTAMENT GREEK 1 10,11, 12; 2 sem. 1 cr.; (DP 5626)

Honors Koine / New Testament Greek I provides an introductory pathway to learning ancient Greek while at the same time giving students the opportunity to read the New Testament in its original language. By focusing on Koine Greek, also known as common Greek, students will be able to begin reading real Greek passages in the first semester. Language instruction will focus upon the development of translation and reading skills. In the process, the student will also gain a greater mastery of English vocabulary deriving from Ancient Greek roots, which may lead to improved performance on the SAT exam. The goal of the class is to allow students to read the original New Testament by the end of the year, as well set up the student to be able to continue into Attic Greek for further studies.

Prerequisites: 3 years of any language at the honors level

Or 2 years of an honors language / 3 years of a non honors language with permission from Mr. Rooney

HONORS CLASSICAL GREEK 2 (DP 5624) (4.5) Grades 10, 11, 12; 2 sem. 1 cr.

Honors Classical Greek 2 completes the student’s preparation to read unadapted Classical Greek prose and poetry. Students will read works of such writers as Herodotos, Thucydides, Aristophanes, Plato, as well as the New Testament, and the Septuagint. In the process, the student will continue to gain a greater mastery of English vocabulary deriving from Classical Greek roots, which may lead to improved performance on the SAT exam. The cultural component of the course will again focus upon the human element of Ancient History,

bringing great and not quite as great figures to life again from the written page.

HONORS CLASSICAL GREEK 3: READINGS IN CHRISTIANITY (DP 5625) (4.5)
Grades 10, 11, 12; 2 sem. 1 cr.

Honors Classical Greek 3 allows the student to study the religious revolution in the Roman Empire in the early centuries of the common era using unadapted Greek texts. The first semester will begin with various passages drawn from the Septuagint and the New Testament and proceed to selected philosophical works by such writers as Plato, Aristotle, Plotinos, and Porphyry. The second semester will conclude with a study of the writings of various Christian writers such as Clement of Rome, Ignatius of Antioch, Athanasius, Gregory of Nyssa, John Chrysostom, and various saint lives. In the process, the student will continue to gain a greater mastery of English vocabulary deriving from Classical Greek roots, which may lead to improved performance on the SAT exam.

HON. MANDARIN CHINESE 1 (DP 5723) (4.5) Grades 9, 10, 11, 12 2 sem. 1 cr.

Mandarin Chinese 1 is an introductory course for students new to the language. The course will teach basic pronunciation using the pinyin system. In addition, students will learn to read and write simplified characters. The course will integrate the four basic language skills: reading, writing, listening, and speaking with a major focus on functional language use and simple structures. In addition to a textbook/workbook with CDs, students will gain language practice using Internet resources and ancillary materials. Cultural topics will also be incorporated into the curriculum.

HON. MANDARIN CHINESE 2 (DP 5724) (4.5) Grades 9, 10, 11, 12 2 sem. 1 cr.

Mandarin Chinese 2 is a continuation of the introductory course for students new to the language. Over 400 words and 140 characters will be introduced through such topics as: time/dates, daily routines, clothing, shopping, visiting, speaking on the phone, eating out, and weather. The course will integrate the four basic language skills: reading, writing, listening, and speaking with a major focus on functional language use and simple structures. In addition to a textbook/workbook with CDs, students will gain language practice using internet resources and ancillary materials, including a continuation of the Active Chinese program, an online textbook focusing on functional use of Chinese.

Prerequisites: Mandarin Chinese 1 and permission of instructor.

HONORS MANDARIN CHINESE 3 (DC) (DP 5725) (4.5) Grades 10, 11, 12 2 sem. 1 cr.

This course continues to expand the student’s knowledge of Mandarin Chinese with an emphasis on the functional use of the language in sentence patterns and grammar structures. The course will engage students in all four levels of language: reading, writing speaking and listening. Topics include: family life, leisure time activities and vacation planning, generational differences, cultural customs and expectations, diet and health, Beijing cultural activities and transportation and geography. In addition to a textbook and workbook with CDs, the teacher will supplement the student’s learning exper-

rience with cultural topics gleaned from the internet and ancillary materials.

Prerequisites: Mandarin Chinese 2 and permission of instructor.

HON. MANDARIN CHINESE 4 (DC)
(DP 5726) (4.5) Grades 11, 12 2 sem. 1 cr.

The goal of Honors Mandarin 4 is to further the students' ability to read and speak Mandarin Chinese at the intermediate level through 6 units. Each unit consists of 3 lessons that revolve around the basic themes of travel in China, traditional Chinese culture, social activities, leisure time, the environment and work-related topics. Vocabulary, grammar, and cultural information are interwoven into each of the lessons. The workbook offers both grammatical activities as well as numerous opportunities for reading and writing. Students will be exposed mainly to characters in the readings and exercises and there will be greater focus on Chinese culture. Students will be expected to do an oral presentation once each semester on some aspect of Chinese culture, history, geography or politics of their choosing.

Prerequisites: Successful completion of Mandarin Chinese 3 and permission of instructor.

ADVANCED PLACEMENT MANDARIN CHINESE 4 (DP 5731)
(5) Grades 11, 12 2 sem. 1 cr.

The Advanced Placement Mandarin 4 course aligns with the AP Chinese Language and Culture course and exam. The course prepares students to demonstrate their level of Chinese proficiency across the three communicative modes (interpersonal, interpretive, and presentational) and the five goal areas (communication, cultures, connections, comparisons, and communities). This includes vocabulary usage, language control, communication strategies, and cultural awareness. In preparation for the AP exam, students will be engaged in performance-based activities within authentic cultural context and materials including advertisement, email, note, news report, announcement etc. To best facilitate the study of language and culture, the course is taught almost exclusively in Chinese.

Prerequisites: Successful completion of Mandarin Chinese 3 and permission of instructor.

ART

Fine Arts use a universal graphic language to communicate human ideas and feelings. Much of what we know of all our human past, we know from the art that people produced. Every aspect of society is affected by some form of art and design.

"Society needs artists, just as it needs scientists, technicians, workers, professional people, witnesses of faith, teachers, fathers and mothers, who ensure the growth of the person and the development of the community by that supreme art form which is the art of education."
-- Pope John Paul 2

Courses in the Fine Arts Department develop the ability to analyze and comprehend the visual messages of the past and present. Students will be able to construct works of art and design which are balanced in composition, organized by the elements and principles of design and are

examples of clear visual communication and careful craftsmanship.

FUNDAMENTALS OF ART AND COLOR
(DP 6521) Grades 10, 11, 12 1 sem. ½ cr.

This studio course explores the basic elements of art and the principles of design. It introduces the student to the fundamentals of color perception and theory of color. Beginning drawing techniques, proportions of the human body and other various projects ranging from value studies to basic print making will be completed. Students will have the opportunity to improve his creative and technical skills by exploring a variety of different artistic mediums. Please note that this class is limited and has a materials fee of \$35 for each student. The course is also offered for original credit in the summer.

DRAWING (DP 6621)
Grades 11, 12 1 sem. ½ cr.

Drawing is observation committed to paper. This course develops the student's powers of observation and the facility to render these observations in drawing materials and media. Free hand, illustrative, and mimicking approaches are used in pencil, charcoal, pen and ink. Class size is limited and has a \$40 materials fee for each student.

Prerequisite: Fundamentals of Art and Color.

PAINTING (DP 6622) (Spring semester only)
1 sem. ½ cr. Grades 11, 12

This is a course in acrylic painting in which drawing skill is helpful, but not necessary for mastery. Painting composition and color theory are included as well as techniques of painting for still-life landscape, portrait, collage and advertising and poster design. This course allows for portfolio development. Class size is limited and has a \$60 materials fee.

Prerequisites: Fundamentals of Art and Color & Drawing.

ADVANCED ART (DP 6723) Grade 12
2 sem. 1 cr.

Advanced Art, offered for independent study, is a portfolio-building course for students interested in, and thinking of, pursuing art beyond high school. This course is tailored to each student according to his individual interests as well as introducing new areas of experience. The student will have numerous assignments to complete in various media. Composition and Creative Design will be emphasized. Students are responsible for all supplies and materials needed.

Prerequisites: Fundamentals of Art and Color, Drawing, Painting, and Photography and meet with the Fine Arts Department Chair for approval.

ART HISTORY 1 - Ancient and World Art
(DP 6574) Grades 10, 11, 12 1 sem. ½ cr.

This is a one semester course that explores the history of various cultures and time periods through the lens of art. We will cover cultures and civilizations from the Stone and Middle Ages, Mesopotamia, Byzantine and Islamic Art, Ancient Egypt, Greece, Rome, India, China, and Japan. We will also have a unit which covers African, South American, and Pacific Island

art as well as modern art made by Americans of African, Latino, and Asian descent. This course aims to widen the worldview of its students as well as enhancing critical thinking, deduction, and writing skills. We will explore how art evokes emotion, how art reflects and critiques culture and society, and similarities and differences within and across cultures from different locations and time periods.

Prerequisite: Fundamentals of Art and Color

ART HISTORY 2 - The Modern Art World
(DP 6575) Grades 10, 11, 12 1 sem. ½ cr.

This is a one semester course that explores the history of various civilizations and time periods through the lens of art. We will begin with the Early and Northern Renaissance and cover the following periods: Mannerism, Baroque, Rococo, Neoclassical, Romanticism, Realism, Impressionism, Post-Impressionism, 20th Century Art, and Contemporary Art. This class aims to broaden the worldview of its students as well as enhancing critical thinking, deduction, and writing skills. We will explore how art evokes emotion, how art reflects and critiques culture and society, and similarities and differences within and across cultures from different locations and time periods.

Prerequisite: Fundamentals of Art and Color

DIGITAL PHOTOGRAPHY (DP 6927)
Grades 10, 11, 12 1 sem. ½ cr.

This class will introduce students to the world of digital photography. Students will learn the various features and functions of the controls on a digital camera. Students will become adept at capturing digital images, saving them to media cards, displaying their favorite images on the computer screen, and manipulating the images via Photoshop software. Students will learn how to e-mail photos, incorporate their images on a Web page, create a digital portfolio, and print a photograph using a specialized photo printer. Students will understand the applications of digital photography in the world of both academics and publications by creating reports and newsletters. Students will also learn how to market their work on the Web and as digital artists. Although photographic experience or familiarity with the camera is not required, having taken the course "Introduction to Photography" would ground the students in the basic principles of how to make a photograph rather than just taking a photograph. Text, lab fee and digital camera are required.

DIGITAL PHOTOGRAPHY 2 (DP 6928)
Grades 10, 11, 12 1 sem. ½ cr.

In order to join this class, students need to have already taken Digital Photography or demonstrate to Mr. Travers or Mr. Holsey their manual skills with a digital camera. This is a portfolio driven course. Students must be admitted to this course by the photography teacher. This class will be limited in size and consist of DeMatha's top student photographers. Each student will be required to photograph a sport DeMatha and submit pictures to be used for the yearbook, on the website, on the social media or other publications. These students will practice taking professional photos of pre-selected clients. Students will learn how to guide clients in a photoshoot and how to conduct themselves professionally. Projects will consist of taking pictures that promote DeMatha academics, faith, music, and athletics.

Students will:

- Develop galleries
- Improve composition
- Learn the intricacies of their camera
- Become proficient in Lightroom
- Photograph events and moments on campus
- Practice a journalistic style of photography
- Create a portfolio over the course of the class demonstrating their skills with a camera
- Learn the fundamentals of videography

Prerequisites: Successful completion of Digital Photography and provision of a professional online portfolio of your best work to the Art Department.

BASICS OF 3D MEDIA (DP 6940)
Grades 11, 12 1 sem. ½ cr.

This one semester course will teach the students the basics of creating three-dimensional objects as well as an understanding of the different tools and methods associated with them. In class the students will get the opportunity to work with various mediums such as plaster, metal, and wood. With each of these, simple tools will be introduced and their use explained so a practical knowledge of function and safety can be taken into the real world. Class size is limited and a material fee will be required for each student.

Prerequisite: Fundamentals of Art and Color

MUSIC and PERFORMING ARTS

The primary goal of the Music Department is to help the music student become more aware of and attain a greater appreciation for a variety of musical styles.

The performance classes (Wind Ensemble, Symphonic Band, Concert Band, Concert Band II, Concert Band I, Advanced Percussion Ensemble, Percussion Ensemble II, Percussion Ensemble I, Sinfonia, Concert Strings I, Voices of DeMatha, and DeMatha Harmonics) stress and encourage a high degree of proficiency on the individual student's instruments. Students are placed in classes according to ability. The proper atmosphere is set so each student may strive for the highest degree of musicality possible.

The non-performance classes (Theory and Ear-Training) give students necessary background and insight into compositional techniques to help them enjoy and interpret music intelligently. Ear training and sight-singing will also be included in the theory and harmony classes.

The extra-curricular instrumental and vocal ensembles (Jazz Ensemble, Jazz Lab and Pep Band) give the students an additional vehicle for performances. These groups also serve for school and public functions.

Each student is required to have at least one fine arts course to graduate. Students who participate in any course in the Music Program will automatically fulfill the fine arts requirement.

PERCUSSION ENSEMBLE I (DP 7574)
Grades 9, 10, 11, 12 2 sem. 1 cr.

The Percussion Ensemble is open to all students who have had experience on percussion instruments. This course offers instruction of technical, musical and rhythmic concepts applicable to the primary solo and auxiliary percussion instruments. The student must have the permission of the instructor before participating.

PERCUSSION ENSEMBLE II (DP 7576)
Grades 9, 10, 11, 12 2 sem. 1 cr.

Percussion Ensemble II will know and perform medium to medium-difficult high school percussion ensemble literature. Students will be expected to rehearse and perform with a keen sense of musical maturity and sensitivity. The student must have the approval of the instructor before participating.

ADVANCED PERCUSSION ENSEMBLE
(Honors) (DP 7526)(4.5)
Grades 9, 10, 11, 12 2 sem. 1 cr.

The Advanced Percussion Ensemble will learn and perform difficult high school and percussion music (musical grade levels 5 – 6) as well as college-level percussion music. Students are expected to rehearse and perform with a keen sense of musicality and sensitivity. Students in this group will perform on many different instruments in the percussion family, doing so from one piece to another. Students must have the approval of the instructor before participating.

CONCERT BAND I (DP 7571)
Grades 9, 10, 11, 12 2 sem. 1 cr.

This band is open to all students with or without previous playing experience. Emphasis is placed upon teaching the fundamentals of music performance through daily rehearsals as well as various concerts. An applicant must have an audition/interview to be placed in this group.

CONCERT BAND II (DP 7573)
Grades 9, 10, 11, 12 2 sem. 1 cr.

An applicant for Concert Band II must have an audition and can participate only with the approval of the instructor. Emphasis is placed upon teaching the fundamentals of music performance through daily rehearsals as well as various concerts.

CONCERT BAND (DP 7523)
Grades 9, 10, 11, 12 2 sem. 1 cr.

An applicant for Concert Band must have an audition and can participate only with the approval of the instructor. Emphasis is placed upon teaching the fundamentals of music performance which includes rhythm, style and musicality. These fundamentals will be demonstrated in daily rehearsals as well as various concerts.

SYMPHONIC BAND (DP 7525)
Grades 9, 10, 11, 12; 2 sem. 1 cr.

An applicant for the Symphonic Band must have an audition and can participate in this select ensemble only with the approval of the instructor. Emphasis is placed upon teaching more advanced principles of musicianship through daily rehearsals as well as various concerts.

WIND ENSEMBLE (Honors) (DP 7524) (4.5)
Grades 9, 10, 11, 12; 2 sem. 1 cr.

An applicant for the Wind Ensemble must have an audition and can participate only with the approval of the instructor. This select ensemble affords the serious music student many opportunities to perform advanced band literature with emphasis on quality musicianship. The student is expected to have a first line instrument in

keeping with quality performance.

DEMATHA HARMONICS (DP 7622)
Grades 9, 10, 11, 12 2 sem. 1 cr.

This auditioned ensemble, open only by permission of the instructor, is designed for the intermediate skill-level vocalist who wants a more advanced experience in vocal and choral music. Emphasis will be placed on technique and musicianship.

VOICES OF DEMATHA (Honors) (DP 7624)
(4.5) Grades 9, 10, 11, 12 2 sem. 1 cr.

This select ensemble affords the serious music student many opportunities to perform advanced choral literature with emphasis on quality musicianship. An applicant for Voices of DeMatha can participate only with the approval of the instructor.

CONCERT STRINGS I (DP 7628)
Grades 9, 10, 11, 12 2 sem. 1 cr.

Concert Strings I is a course for beginning string students. No previous experience is necessary to join. Students will learn how to play a string instrument through daily instruction. After successful completion of Concert Strings I, students will be placed into Concert Strings.

CONCERT STRINGS (DP 7625)
Grades 9, 10, 11, 12 2 sem. 1 cr.

This ensemble is for string musicians that are at an intermediate level. Students must audition and can only participate with the instructor's approval. Music performance is emphasized through daily rehearsals, practice, and concerts.

SINFONIA (Honors) (DP 7626) (4.5)
Grades 9, 10, 11, 12, 2 sem. 1 cr.

This ensemble is for the most advanced string musicians. Applicants must audition and can only participate with the instructor's approval. Sinfonia is for serious string students who have the potential to pursue music as a career. Private instruction and a quality instrument are necessary. This ensemble performs throughout the academic year and represents DeMatha on their annual Spring Music Trip.

ADVANCED MUSIC THEORY AND EAR-TRAINING 1, 2, 3, 4, 5, 6 (DP 7641 – 7646)
Grades 10, 11, 12 2 sem. 1 cr.

This is a two-semester course in the study of theoretical musical ideas. The purpose is to help the serious music student who plans to major in music in college or wishes to understand the workings of musical composition. The course will include elementary piano training, ear training and an extensive study of basic compositional practices. Qualified students may enroll in Advanced Music Theory and Ear-Training) 3 and 4 (7643, 7644) following the completion of Theory and Ear-Training) 1 and 2 (7641, 7642). Advanced Music Theory and Ear-Training) 5 (7645) and 6 (7646) are available to students who have completed the previous 4 sections.

Prerequisite: Permission of instructor.

JAZZ ENSEMBLE, JAZZ LAB, AND PEP BAND No Credit

Membership in the Jazz Ensemble, Jazz Lab and Pep Band is limited to those students who

are enrolled in the Instrumental Ensembles. Rehearsals for these groups are generally held during after-school hours.

THEATER ARTS (DP 7900)
9, 10, 11, 12 1 sem. ½ cr.

Explore and grow in understanding of the theatrical arts. This class will be an exploration of the different kinds of theater: how they're written; how the technical side of things is designed and created; and how they are performed. Units will cover the arts of the playwright, stage crew and actor. The course will also be involved with the DeMatha Players' productions. Come be a part of the growing theater program at DeMatha!

BUSINESS

The Business Department offers a wide variety of courses to satisfy the interests and needs of the business-oriented student and to serve as an introduction to the field of business studies for all students. The curriculum is designed to give students insight into the American market economy, and it stresses their role as economic decision makers.

The department offers a concentration of courses which provide a sound foundation for students wishing to pursue business majors in college, and it also provides some useful skills to students planning to enter the world of work immediately after high school graduation.

ACCOUNTING 1 (DP 8523) Grades 10, 11, 12
2 sem. 1 cr.

This two-semester course presents the Accounting Cycle in its simplest form. The first semester shows the student how an accounting system is started and the information which is necessary to begin the system. The student starts with preparing a balance sheet and goes through the various stages of the Accounting Cycle ending with preparation of financial statements (reports) and closing of the ledger. Emphasis is placed on record keeping for individuals and sole proprietorships.

In the 2nd semester the student uses the information and understanding acquired during the first semester and applies it to a merchandising business. The use of various journals, such as Combination, Sales and Purchases are studied along with their purposes. The student is also introduced to check writing and balancing of checkbooks. Payroll taxes are also touched upon. Completion of a Practice Set ends the course.

**Sophomores must have the approval of the instructor with the Counseling Center's consent.

BUSINESS TOPICS 1 (DP 8561)
Grades 10*, 11, 12; 1 sem. ½ cr.

Business Topics 1 is designed to introduce students to the basic fundamentals to setting up and operating a small business. In addition, this course provides a detailed look into Entrepreneurship and how to take a product or an idea and build it into a business. Management structures, leadership and other internal organizational functions will also be discussed. Each student will design a small business of his own and create a simple business plan, using a taught 5 step process, that will be presented with the purpose of obtaining a loan to start the business. This one-semester course is perfect for any student who may be interested someday in owning his own business.

***Sophomores must have the approval of the instructor with the Counseling Center's consent.

BUSINESS TOPICS 2 (DP 8562)
Grades 11, 12 1 sem. ½ cr.

Business Topics 2 will enhance the concepts introduced in Business Topics 1 and will cover Human Resource Management, Labor Relations, and Organizational Behavior (which includes Performance through Empowerment, Teamwork, and Communication). In addition, Production and Operations Management, as well as budgets and planning, will be reviewed regarding Fortune 500 companies as well as sports franchises. The business plan constructed in Business Topics 1 will then further designed and enhanced to complete a true in depth business plan. Students MUST complete Business Topics 1 in order to be able to take Business Topics 2. This is a one-semester course recommended for Juniors and Seniors.

ECONOMICS (DP 2321) Grades 11, 12
1 sem. ½ cr.

(This course is also listed in the Social Studies Department. See page 8 for course description.)

ADVANCED PLACEMENT ECONOMICS
(DP 2421) Grades 11, 12 2 sem. 1 cr.

(This course is also listed in the Social Studies Department. See page 7 for course description.)

PERSONAL FINANCE (DP 8643)
Grades 11, 12 1 sem. ½ cr.

This course concentrates on the principles of Personal Finance and through a series of on-line simulations students will live their lives and learn from mistakes now and be more educated to make decisions later. Students will gain valuable insight into areas such as: finding a job, buying a car, renting an apartment, budgeting and savings, checking and savings account, credit and debit cards, fixing their credit, filing their taxes, investing, retirement accounts, buying a house and insurance... truly a class everyone can benefit from taking.

MARKETING CONCEPTS 1 (DP 8611)
Grades 10, 11, 12 1 sem. ½ cr.

Marketing Concepts 1 is designed to present contemporary applications of many different aspects of marketing. This course will lay the groundwork for those students interested in further understanding the Marketing Process in regards to everyday consumer products, and is a very good look into the world of marketing for those students who are interested in a business/marketing career after high school or studying business/marketing in college. Throughout the course we will refer to current events in the marketing world from advertisements and have some video review of current commercials seen on television and in magazines. The course consists of, but is not limited to the following: What is Marketing, Consumer Behavior, Marketing Segmentation, Positioning Strategies, Personal Selling, Sales Promotion, Pricing Strategies, Brand Management and Logo Design Theories. This is a one-semester course recommended for Sophomores, Juniors, and Seniors.

MARKETING CONCEPTS 2 (DP 8612)
Grades 11, 12 1 sem. ½ cr.

Marketing Concepts 2 will enhance the concepts introduced in Marketing Concepts 1 from both the consumer and the retailer's perspective. Topics covered in Marketing Concepts 2 will introduce more of the marketing philosophies of today and will include E-Business, Social Media Marketing, Pricing Strategies and Concepts, Marketing Research, and Marketing Communications/Advertising. In addition, students will be placed in groups to develop a marketing plan for an existing product, store, or service. Students MUST complete Marketing Concepts 1 in order to be able to take Marketing Concepts 2. This is a one-semester course recommended for Juniors and Seniors.

PHYSICAL EDUCATION

The Physical Education Department seeks to provide a well-rounded program of physical and classroom activity along with practical applications which will help the student to recognize and realize his potential as a healthy member of society.

The aim of the department is to help the student appreciate and learn how to care for his body and understand his physical, mental and social capabilities and responsibilities. Not only will he be able to take care of himself adequately, but he will also be able to help in the immediate care of others who may be in distress. In addition, the student should be able to make the right decisions in dealing with his own health and the health of those around him.

PHYSICAL EDUCATION (DP 9124)
Grades 10, 11, 12 1 sem. ½ cr.

In Physical Education all students will learn the basic fundamentals of basketball, volleyball, speed ball, wiffle ball, golf, lacrosse, and circuit training. Basic exercises and flexibility are taught and practiced regularly to prepare one for exercise. This course is graded on a Pass/Fail basis. Students may earn PE credit by participating on a DeMatha sponsored athletic team.

INTRODUCTION TO SPORTS MEDICINE & ATHLETIC TRAINING (DP 9144)
Grades 11, 12 1 sem. ½ cr.

This course offers students an introduction to sports medicine and athletic training. It focuses on the skills necessary in the recognition, care, prevention, and rehabilitation of sports-related injuries. The students will be exposed to basic first-aid procedures and injury evaluation concepts and will be trained in CPR. Basic procedures in the use of modalities and taping techniques necessary in the area of athletic training will also be demonstrated. This course is designed for those students interested in the fields of sports medicine, physical therapy or physical education at the college level.

Prerequisite: Biology.

BODY COMPOSITION (DP 9164)
Grades 10, 11, 12 1 sem. ½ cr.

This course will introduce and refine the lifting techniques used for the different modalities in the weight room. Emphasis will be placed on ground base lifts, including, but not limited to Olympic lifts, push/pull exercises, double and single joint exercises along with core development. Weight room safety will be stressed with the various lifts, as will nutrition, cardiovascular fitness and exercise prescription.

INDEPENDENT STUDIES COURSES

Some of the elective courses listed in various departments are not always scheduled due to lack of enrollment. These courses may be offered on an Independent Studies basis if a faculty member is willing and able to teach the course in addition to his/her schedule. In order to defray the cost of providing Independent Studies courses, an additional fee will be charged (\$800.00 for a full year course, \$400.00 for a one-semester course). This fee will be split equally among the students enrolled in the course. Courses which could be offered on an Independent Studies basis are listed below:

Advanced Creative Writing
 Computer Programming 1, 2
 Advanced Topics in Programming 1, 2
 Advanced Topics in HTML
 Seminar in Computer Science
 Advanced Engineering Design
 Science Seminar and Investigation
 Mobile App Design
 Honors French 5, 6, 7

Note: Independent Study courses do NOT count toward a student's total yearly credit minimum.

DIPLOMAS WITH DISTINCTION

Students who wish to earn a special diploma by pursuing concentrated studies in a specific content area may do so using these guidelines:

Diploma with Distinction in the Humanities (English, Theology, Social Studies, Languages—currently 28 semesters required to graduate)

A student must successfully complete 33 semesters of work in the Humanities with a GPA of 3.8 or above.

Diploma with Distinction in Science and Mathematics (Science, Math, Computer Science—currently 15 semesters required to graduate, 16 with Health*)

A student must successfully complete 19 semesters of Science, Math, and Computer Science and Engineering with a GPA in these courses of 3.8 or above (a programming class is required.) A student may count a year of participation in Science Scholars, Science Club, Robotics Club, or Ecology Club as one semester of work.

*Health does not count towards this Diploma with Distinction

Diploma with Distinction in Arts (Music, Fine Arts—currently .5 semesters to graduate)

A student will achieve 11 semesters of successful Academic work in the Arts. The grade point average in these classes must be 3.8 or above. A student must take at least one academic semester in music and a fine art. Participation in a dramatic production or a year of Tri-M will count as one semester but cannot count as a semester of either music or fine arts.

STUDENT SERVICES

COUNSELING CENTER PROGRAM

The Counseling Center seeks in every way possible to be a source of help to the whole DeMatha family – students, teachers and parents. Its role is to act as facilitator in the process of education, taking into account the multi-dimensional nature of both the learning and the teaching process.

The ultimate goal of the Counseling Center is to help the student overcome any obstacle that might interfere with his successful education at DeMatha and to prepare him to feel secure about his goals and plans for his post-secondary pursuits.

DeMatha Counselors offer the following types of Counseling:

- Academic
- Educational
- Personal
- Career Planning
- College Counseling

Students and parents are encouraged to contact counselors at any time during the school day. Counselors will work with students to develop academic schedules, assist in handling academic or personal challenges, evaluate interests and goals, help with adjustments to school life, and plan for post-secondary education. Counselors also plan and administer standardized testing and assist students, parents and teachers to interpret the results. Counselors receive 504 plans and IEP's from previous schools and work with the student, parents and teachers to develop a DeMatha Plan for all students who need accommodations.

The Counseling Center also maintains all student records and official transcripts.

CAMPUS MINISTRY OFFICE

Campus Ministry enables the DeMatha community to experience itself as living Church. By means of programs, personalities and atmosphere, students, faculty, staff and supporters are invited to share a deeper, personal relationship with God the Father, through Christ Jesus in the Spirit. Needs are identified and responded to in the following areas:

SPIRITUAL LIFE -- Opportunities are provided for communal and personal growth through retreat programs for students and faculty/staff; school-wide Community Building Days, Reconciliation Days.

LITURGICAL CELEBRATIONS -- Liturgies celebrate significant moments in the life of a worshiping community. School-wide liturgies, prayer services and daily prayers serve to unite the DeMatha Family.

PASTORAL CARE -- The pastoral needs of the community are provided for within a warm, inviting environment conducive to a comfortable sharing of concerns.

SERVICE- Responsibilities entail the coordination of the 55 hours Christian service requirement for graduation; the organization of school-wide and group service projects to meet local community needs; the encouragement of student initiatives in community outreach.

CHRISTIAN SERVICE (DP 9673)
 Grades 9, 10, 11, 12 Non-credit 55 hrs total

The Trinitarians have always been identified by their commitment to be of service to people in need. Throughout the 800 years of history the Trinitarians have enlisted the help of many people of various ages and talents to continue the tradition of St. John DeMatha: to engage in works of mercy and works of redemption. Currently, many schools in our country have re-affirmed the need for students to engage in community projects, where the human dimension and spiritual element of education can be

reinforced. All students need to see how they can bring about change in a society that needs compassion and vision.

DeMatha Catholic High School continues this tradition, where all students must participate in fifty-five (55) hours of Christian service performed at an approved site. This program will be coordinated and monitored by the CMO.

ELECTIVES AVAILABLE BY ACADEMIC DISCIPLINE

English

| | |
|----------------------------|---|
| The Road to Civil Rights | 4 |
| Sports Journalism | 4 |
| Opinion Writing | 4 |
| Advanced Journalism | 4 |
| Mythology 1 | 4 |
| Creative Writing | 4 |
| Speech | 4 |
| Film Study | 5 |
| Video Broadcast Journalism | 5 |
| ESOL | 5 |
| Research and Presentation | 5 |

Social Studies

| | |
|--|---|
| Advanced Placement World History | 6 |
| Advanced Placement Comparative Government and Politics | 6 |
| The African American Experience | 7 |
| Honors The African American Experience | 7 |
| Advanced Placement Human Geography | 7 |
| Understanding 9/11 | 7 |
| The History of Terrorism and Extremism | 7 |
| Honors Foundations of Psychology | 7 |
| Honors History and Systems of Psychology | 7 |
| General Psychology | 7 |
| Economics | 8 |
| Advanced Placement Economics | 8 |

Mathematics

| | |
|-------------------------------|---|
| Statistics | 9 |
| Advanced Placement Statistics | 9 |

Computer Science and Engineering

| | |
|---|----|
| Research and Presentation | 9 |
| HTML | 9 |
| Engineering Design and Problem Solving | 9 |
| Hon. Engineering Design & Problem Solving | 9 |
| Robotics | 9 |
| Advanced Robotics | 9 |
| Introduction to Prototyping | 9 |
| Advanced Engineering Design | 9 |
| Advanced Topics in HTML | 9 |
| Computer Programming 1 | 9 |
| Computer Programming 2 | 10 |
| Advanced Topics in Programming 1 | 10 |
| Advanced Topics in Programming 2 | 10 |
| Advanced Placement Computer Science | 10 |
| AP Computer Science Principles | 10 |
| Mobile App Design and Development | 10 |
| Seminar in Computer Science | 10 |

Sciences

| | |
|--|----|
| Advanced Placement Physics | 11 |
| Seminar and Investigation | 11 |
| Human Anatomy and Physiology | 11 |
| Astronomy | 12 |
| Advanced Placement Environmental Science | 12 |
| Marine Biology | 12 |
| Biotechnology | 12 |
| Forensic Science | 12 |

World Languages

| | |
|---|----|
| AP French Language and Culture | 12 |
| Honors French 5, 6, 7 | 13 |
| Spanish 4 | 13 |
| Honors Spanish 4 | 13 |
| Advanced Placement Spanish | 13 |
| Advanced Placement Latin 4 | 14 |
| Honors Koine/New Testament Greek 1 | 14 |
| Honors Classical Greek 2 | 14 |
| Honors Classical Greek 3 | 14 |
| Mandarin Chinese 4 | 15 |
| Advanced Placement Chinese Language and Culture | 15 |

Art

| | |
|-------------------------------|----|
| Fundamentals of Art and Color | 15 |
|-------------------------------|----|

Drawing
Painting
Advanced Art
Art History 1
Art History 2
Digital Photography
Digital Photography 2
Basics of 3D Media

Music

Percussion Ensemble I
Percussion Ensemble II
Advanced Percussion Ensemble
Concert Band I
Concert Band II
Concert Band
Symphonic Band
Wind Ensemble
Voices of DeMatha
DeMatha Harmonics
Sinfonia
Concert Strings I
Concert Strings
Advanced Music Theory 1
Advanced Music Theory 2
Advanced Music Theory 3
Advanced Music Theory 4
Advanced Music Theory 5
Advanced Music Theory 6
Theater Arts

Business

Accounting
Business Topics 1
Business Topics 2
Economics
Advanced Placement Economics
Personal Finance
Marketing Concepts 1
Marketing Concepts 2

Physical Education

Introduction to Sports Medicine and Athletic
Training
Body Composition

**The following courses may include a materials fee paid
in class or billed to students:**

Health
All Art courses
All Photography courses
Some Sciences courses

PROGRAM OF STUDIES

The DeMatha Way (Freshmen only)

THEOLOGY

The Search for God: The Revelation of Jesus in
Scripture/ Who Is Jesus Christ?
The Living Word: The Mission of Jesus Christ/
Jesus Christ's Mission Continues in the Church
Christian Ethics/Sacraments
Fundamentals of Catholic Thought and Tradition
Catholic Social Teaching
Catholicism in an Ecumenical World
Prophetic Literature
New Testament Scripture

ENGLISH

English 9
Honors English 9
Survey of American Literature
Honors American Literature
World Literature
Honors World Literature
Advanced Placement English Language and Com
position
British Literature
Honors British Literature
Advanced Placement English Literature and
Composition
Crime and Detective Fiction
Twentieth Century Novel
Speculative Fiction
African American Literature
Advanced Film Study
Advanced Creative Writing
The Road to Civil Rights
Sports Journalism
Opinion Writing
Advanced Journalism

15 Mythology
15 Film Study
15 Creative Writing
15 Speech
15 Reading and Study Skills
15 Video Broadcast Journalism
16 ESOL
16 Research and Presentation

SOCIAL STUDIES

16 Foundations of World History
16 Honors Foundations of World History
16 European History
16 Honors European History
16 The World at War
16 Honors The World at War
16 Struggle, Revolution, and Empire in the Americas
16 Honors Imperialism and Independence
16 Advanced Placement World History
16 U.S. History
16 Honors U.S. History
16 Advanced Placement U.S. History
16 Government/Law
16 Honors Government
16 Advanced Placement Government
16 Advanced Placement Comparative Government and
Politics
16 The African American Experience
16 Honors The African American Experience
17 Advanced Placement Human Geography
Understanding 9/11
The History of Terrorism and Extremism
Honors Foundations of Psychology
17 Honors History and Systems of Psychology
17 General Psychology
17 Economics
17 Advanced Placement Economics

MATHEMATICS

17 Algebra 1, Part 1
17 Algebra 1, Part 2
Algebra 1
Honors Algebra 1
Algebra 2
Honors Algebra 2
17 Geometry
17 Trigonometry
Geometry
Honors Geometry
Pre-Calculus
Honors Pre-Calculus
Advanced Placement Calculus AB
Advanced Placement Calculus BC
Statistics
Advanced Placement Statistics

COMPUTER SCIENCE AND ENGINEERING

Research and Presentation
HTML
Engineering Design and Problem Solving
Honors Engineering Design and Problem Solving
Robotics
Advanced Robotics
Introduction to Prototyping
Advanced Engineering Design
Advanced Topics in HTML
Computer Programming 1
Computer Programming 2
Advanced Topics in Programming 1
Advanced Topics in Programming 2
Advanced Placement Computer Science
Advanced Placement Computer Science Principles
Mobile APP Design and Development
Seminar in Computer Science

SCIENCES

Health
Biochemistry
Biology
Honors Biology
Advanced Placement Biology
Chemistry
Honors Chemistry
Advanced Chemistry
Physics
Honors Physics
Advanced Placement Physics
Marine Biology
Seminar and Investigation
Honors Human Anatomy & Physiology
Astronomy
Advanced Placement Environmental Science
Biotechnology
Forensic Science

WORLD LANGUAGES

Honors French 1,
Honors French 2
Honors French 3
AP French Language and Culture
Honors French 5
Honors French 6
Spanish 1
Spanish 2
Spanish 3
Spanish 4
Honors Spanish 1
Honors Spanish 2
Honors Spanish 3
Honors Spanish 4
Advanced Placement Spanish
Honors Latin 1
Honors Latin 2
Honors Latin 3
Advanced Placement Latin 4
Honors Classical Greek 1
Honors Classical Greek 2
Honors Classical Greek 3
Honors Mandarin Chinese 1
Honors Mandarin Chinese 2
Honors Mandarin Chinese 3
Honors Mandarin Chinese 4
Advanced Placement Chinese Language and Culture

ARTS

Fundamentals of Art/Color
Drawing
Painting
Advanced Art
Art History 1
Art History 2
Digital Photography
Digital Photography 2
Basics of 3D Media

MUSIC and PERFORMING ARTS

Percussion Ensemble I
Percussion Ensemble II
Advanced Percussion Ensemble
Concert Band I
Concert Band II
Concert Band
Symphonic Band
Wind Ensemble
DM Singers 9
DeMatha Harmonics
Voices of DeMatha
Concert Strings I
Concert Strings
Sinfonia
Advanced Music Theory 1
Advanced Music Theory 2
Advanced Music Theory 3
Advanced Music Theory 4
Advanced Music Theory 5
Advanced Music Theory 6
Theater Arts

EXTRACURRICULAR MUSIC

Jazz Ensemble
Jazz Lab
Pep Band

BUSINESS

Accounting
Business Topics 1
Business Topics 2
Economics and AP Economics (Cross-listed in the
Social Studies Department.)
Personal Finance
Marketing Concepts 1
Marketing Concepts 2

PHYSICAL EDUCATION

Physical Education
Introduction to Sports Medicine & Athletic Training
Body Composition

***See last page for sample programs and course
planning worksheet.***

SAMPLE PROGRAMS

GRADE 9

The Search for God
English 9
Biochemistry
Mathematics
World History
World Language
The DeMatha Way/Health

GRADE 11

Christian Ethics/Sacraments
World Literature
Chemistry
Mathematics
United States History
World Language
--1 elective

GRADE 10

The Living Word
American Literature
Biology
Mathematics
World Language
PE and/or 2 electives

GRADE 12

Fundamentals of Catholic
Thought and Tradition plus 1 elective
Brit. Lit. plus 1 Senior Seminar
Government
Mathematics
--2 and 1/2 electives

SAMPLE MATH PROGRAMS

For the Classes '24

(1)

9th - Algebra 1, Part 1
10th - Algebra 1, Part 2
11th - Geometry (full year)
12th - Algebra 2 (33)

(2)

9th - Algebra 1
10th - Algebra 2 (33)
11th - Geometry (full year)
12th - Trigonometry (full year)

(3)

(For most DeMatha students)
9th - Algebra 1
10th - Algebra 2
11th - Geometry and Trigonometry
12th - Pre-Calculus or Statistics

(4)

9th - Honors Algebra 1
10th - Honors Algebra 2
11th - Honors Geometry/Trig.
12th - Honors Pre-Calculus

(5)

9th - Honors Algebra 2
10th - Honors Geometry/Trig.
11th - Honors Pre-Calculus
12th - AP Calculus AB or BC, or AP Stats

Starting with the Class of '25

(1)

9th - Algebra 1, Part 1
10th - Algebra 1, Part 2
11th - Geometry (full year)
12th - Algebra 2 (33)

(2)

9th - Algebra 1
10th - Geometry (full year)
11th - Algebra 2 (33)
12th - Trigonometry (full year)

(3)

(For most DeMatha students)
9th - Algebra 1
10th - Geometry
11th - Algebra 2
12th - Pre-Calculus or Statistics

(4)

9th - Honors Algebra 1
10th - Honors Geometry
11th - Honors Algebra 2
12th - Honors Pre-Calculus

(5)

9th - Honors Geometry
10th - Honors Algebra 2
11th - Honors Pre-Calculus or AP Calc AB
12th - AP Calculus AB or BC, or AP Stats