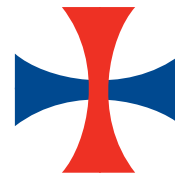


# Catalog of Courses

DeMatha Catholic High School



2019-2020

## Table of Contents

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

ART .....	15	PROGRAM OF STUDIES .....	19
BUSINESS .....	17	SAMPLE PROGRAMS .....	20
CHRISTIAN SERVICE .....	19	SCIENCES .....	10
COMPUTER SCIENCES AND ENGINEERING .....	9	SOCIAL STUDIES .....	6
COURSE PLANNING WORKSHEET.....	20	STUDENT SERVICES:	
COURSES REQUIRING MATERIALS FEE.....	19	COUNSELING CENTER .....	18
DIPLOMAS WITH DISTINCTION .....	18	CAMPUS MINISTRY OFFICE .....	19
ENGLISH .....	3	THE DeMATHA WAY .....	2
GRADUATION REQUIREMENTS .....	1	THEOLOGICAL STUDIES .....	2
INDEPENDENT STUDIES COURSES. ....	18	WORLD LANGUAGES .....	13
LIST OF ELECTIVES .....	19	<i>The Catholic School develops in the school community an atmosphere animated by a spirit of liberty and charity based on the Gospel, tak- ing into consideration as it should the condi- tions of an age of progress and preparing its pupils to contribute effectively to the welfare of the world.</i>	
MATHEMATICS .....	8	<u>Declaration on Christian Education</u>	
MUSIC.....	16	Vatican I	
PHYSICAL EDUCATION .....	18		

## 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. Body Composition, independent study courses and repeated electives do NOT count toward this minimum. Likewise, the extra 1/2 credit awarded for AP Biology, AP Chemistry and AP Calculus BC does not count toward this minimum.*

**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.

**THEOLOGICAL STUDIES**

The educational task of Theological Studies is to search for an answer to the basic question of meaning in human life. People who want to live a full life must come to terms with such questions as: What is a human person? How am I going to live my life? What about standards and values? How am I to understand myself and others? What is life in the face of death? What is the truth about a God? To find answers to these questions is most important for a person because the answers will serve as a guide in his way of living. Therefore, as religion is a basic dimension and need in every human person, the pivotal point of the Theology Program is the student himself.

There are many religious systems of thought and practice in our modern world. They strive to aid and guide people in their search. These include the major world religions along with various cults and philosophies. Each religion has its characteristic way of understanding the human person, relating him to others and to a God, and interpreting the experiences of life.

The Department of Theology presents Catholic Christianity as a unique religious system of thought and practice. The entire Program is based on the principle that a man in today’s world can grow and mature as a human person and can find meaning and fulfillment in life by following Jesus Christ. What is special to Christianity is that Jesus’ life and teachings are a guide and Christian faith is a man’s personal response to God’s revelation of how a person should live his life. Therefore, the student is encouraged to study and reflect on the experience of becoming himself in relationship to others and sustained by God in Christ.

A living and mature faith needs to prove its fruitfulness by penetrating the believer’s entire life...(Pastoral Constitution on the Church in the Modern World)

By its very nature, the Theology Program is interdisciplinary, i.e., it is a synthesis of insights from theology, psychology, sociology, biology and philosophy.

1. The Department strives to guide the student in learning, understanding, and appreciating his physical, personal, psychological, social

and religious development in terms of Christian values and meaning.

2. The Department strives to encourage the student to study, reflect on, and discuss a variety of personal and social experiences and issues. These are basic to an adolescent’s growth in understanding and maturity for unless the student relates himself to others he can neither really live nor develop his potential.

3. The Department strives to teach the student that personal responsibility is his faith response to his Creator’s stimulus of life and to the search for meaning. This is the basis of Christian spirituality for “Christ is now at work in the hearts of men through the energy of His spirit.”

4. Because theological study draws its content from many fields of learning, the Department strives to teach the student the necessary skills and attitudes to reason clearly so that he can integrate the information and direct and shape his life.

5. In conjunction with the Campus Ministry Office, the Department provides opportunities for the student to express his religious understanding and faith response through liturgy and paraliturgy and experience the Christian life through social action.

**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** (DP 0323)  
Grade 11 2 sem. 1 cr.

Ethics provides humans with a framework within which to interpret, understand and act in the world. Christian Ethics provides that structure by drawing upon collective, lived human experience informed by Sacred Scripture, tradition and social teaching. Grounded in the fundamental belief of the sacredness and dignity of life, Christian Ethics establishes the foundation for the individual and the community to live and act justly.

This course seeks to acquaint the student with the richness of the Catholic-Christian Ethical tradition in dialogue with pluralistic perspectives of contemporary secular society. The course incorporates an interdisciplinary approach, integrating the social sciences and history with theology. The material covered explores factors affecting ethical decisions: moral maturity, competing methodologies, formation of the conscience, theological understanding of personal and moral sin. Inherently dynamic, ethics invites application. The practical aspect is explored through examining moral dilemmas and contemporary issues. The course focuses on the following areas of ethical concern: Sexual Ethics - topics include pre-marital sexuality, homosexuality, masturbation; Bioethics - topics include abortion, contraception, organ transplants; Social Ethics - topics include economic justice, social justice, peace studies.

Ultimately the goal of the Christian Ethics course is to enable the student to understand, evaluate and critique ethical issues and perspectives in the process of informing his conscience.

**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.

**SACRAMENTAL THEOLOGY** (DP 0425)  
Grade 12 1 sem. ½ cr.

This one semester course will seek to explore the sacraments of the church, their history and current condition. Students will explore and challenge their own sacramental life in light of

their faith and current church teachings. This course will employ the scriptures, catechism, and work of the doctors of the church who have sought to define and expand the meaning of the sacraments. It will also expand the student's experience of sacraments and how they are practiced all over the world, i.e., the ways that enculturation changes the life of the sacrament. Finally, the student will be required to go out in search of varying representations of the celebration of the sacraments.

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

This one semester course will seek to expose students to the rich teaching of the Catholic Church in regards to social justice. The 10 principles commonly agreed upon will be the center of the social justice teaching and other foundational documents of Catholic Social Teaching from *Rerum Novarum* and recent writings of the US Catholic Bishops and Pope Benedict will also be explored. In addition, the course will discuss the lives of those people who have lived out social justice, from Dorothy Day to Pedro Arrupe to Paulo Frere and the many ways in which social justice is being offended currently. Finally, as an integral part of this course, it will link the community service requirement with a richer and deeper reflection on social justice teachings.

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.

**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.

The department's instructional goals are divided into four broad categories: 1) basic knowledge and concepts; 2) intellectual abilities; 3) academic and social skills; and 4) feelings, attitudes and values.

Instructional Goals:

- 1.) The department will assist the student in the following:  
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; and the ability to read with comprehension;
- 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 English Composition, Journalism, and other electives do not substitute for regular English credits.

Credits received through concurrent study of English at the University of Maryland or Prince George's Community College may, with the approval of the Department Chair, be substituted 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, The Western, 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.

SURVEY OF 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 Adventures of Huckleberry Finn*, *The Great Gatsby*, the short stories of Edgar Allan Poe, 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.

tity. This course takes a compositional approach to grammar instruction and aims to improve both 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.

Prerequisite: 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 "A-" average in English 9, approval from their English 9 instructor, and will 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 vocabulary and writing skill is continued from English 10, though vocabulary skills are now taught primarily from context.

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 "B" average, permission from their American Literature instructor, and may be asked to submit a graded piece of writing. The department's chairs will finalize all honors placements after year-end grades are available.

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

All of the information in Honors World Literature is presented with greater intensity and depth. In addition, this course prepares students to take the Advanced Placement Language and Composition Examination. The syllabus for this course has been approved by the College Board.

Prerequisites: 3.5 - 4.0 average and permission of current English instructor.

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

The framework of this first semester course is the study of the British tradition in literature. Though primarily a chronological study, teachers may also arrange units thematically. All of the literary forms are studied, and the student is encouraged to both ground himself in the tradition and to investigate the tradition by dealing with questions of periodization; that is, how do historical events and philosophical ideas define the way we group and study individual works; ideology, that is, how writers advance or subvert cultural truths through their literary responses to their society; and, how is the canon formed; that is, why do we assign places of importance to some writers while we marginalize others. Vocabulary and writing are treated in much the same way they are treated in World Literature.

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

All of the information presented in British 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 British Literature must have a "B" average, permission from their World Literature instructor, and may be asked to submit a graded piece of writing. The departments chairs will finalize all honors 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 Spring 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 from Tony Hillerman and George Pelecanos. 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 Native American 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.

TWENTIETH-CENTURY NOVEL (DP 1426)  
Grade 12 1 sem. ½ cr.

Throughout the 20th-century, the novel eclipsed poetry and drama to become the clearly favored genre of literary production and consumption. This course provides students with a survey of 20th-century novels, with emphasis placed on specific literary movements or thematic units as developed by the instructor. Current thematic units within the course include dystopian literature and the fantasy fiction of J.R.R. Tolkien. All novels will be contextualized through the discussion of the societal, historical, and intellectual circumstances that influenced cultural production at that time. Students will study approximately four or five novels over the semester.

SCIENCE FICTION (DP 1429) 1 sem. ½ cr.  
Grade 12

This course surveys the rich genre of science fiction with particular emphasis on its exploration of human potential and limits when combined with the promise of technology. This intersection of the human and the technological is fraught with philosophical and political questions and science fiction has consistently provided readers (as well as listeners and viewers) with an imaginative outlet for those modern anxieties. Students will be exposed to classic works in the genre by writers such as Bradbury, Welles, Asimov, Dick, and LeGuin as well as more contemporary developments in speculative fiction. Students will also 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.

TOLKIEN'S THE LORD OF THE RINGS (DP 1715)  
Grade 12 1 sem. ½ cr.

Since it was first published in three installments between 1954 and 1955, Tolkien's *The Lord of the Rings* has sold more than 150 million copies, making it the second best-selling fictional

work of all time. Perhaps more significant is that it almost single-handedly launched a new genre, fantasy fiction. Though elements of the fantastic had been present in literature prior to Tolkien's work, the world had not yet seen a fantasy project of this magnitude. Tolkien aimed at creating a new mythology for England, and he built a world that would be revisited countless times by readers and writers alike.

This class will take an in-depth look at Tolkien as a writer, examining his essays on fictional monsters, language, and the fantasy genre. It will take you on a journey through Middle-Earth, be it your first or fourteenth time, that should challenge and delight. We will look at the *Lord of the Rings* as a heroic quest, as a Catholic vision, and as a 20th-century project that emerged under certain social, cultural, and philosophical conditions.

CATHOLIC WRITERS (DP 1540)  
Grade 12 1 sem. ½ cr.

The writings of numerous prominent Catholic writers will be read and examined throughout the course. The focus of the class will be analyzing how the authors' Catholic perspective influenced and shaped the themes and topics in their writings. The class will also examine how the text reflected and impacted the culture of that time. The student will demonstrate his mastery of the material by completing a research paper reflecting the content covered during the semester.

SENIOR COMPOSITION (DP 1717)  
Grade 12 1 sem. ½ cr.

This course reinforces the fundamentals of academic writing by teaching writing tasks commonly used in English 101 classes, culminating in a substantial research project. As students formulate and investigate their own research questions, instructors will use units of shared class texts to model and teach key research and composition skills like summarizing, paraphrasing, incorporating and citing quoted evidence, and synthesizing sources to support a position. Units of shared class texts will be organized around a genre, theme, or author(s) of merit.

DYSTOPIAN LITERATURE (DP 1485)  
Grades 12 1 sem. ½ cr.

Dystopian Literature is a specific category of Science Fiction. This is a course that will introduce students to societies where survival and adjustment to a new world order are their only goals. This course will give students the opportunity to explore the themes, characteristics and conflicts that are specific to dystopian literature. Through readings and discussions, each student will chronicle the haunting choices that can bring a society to the brink of a precarious future.

The course's foundation will be the classic dystopian novels of George Orwell, Margaret Atwood and Lois Lowry. Exposure to more recent work will help students examine the influences these novels have on our society's culture - i.e., its films, music and television. The course will require the reading of three novels, shorter reading assignments, and the completion of a research paper.

WAR NARRATIVES (DP 1486)  
Grade 12 1 sem. ½ cr.

This class surveys representations of wars from

the 20th and 21st Century. Students will read a variety of texts (poetry, short stories, memoirs, and novels) and watch a few films such as *The Hurt Locker*. Additionally, students will be expected to do research and give presentations on the various wars being studied in order to better understand the historical contexts surrounding each text that we will study. Each student, after consultation with the teacher, will write a research paper focusing on a particular writer, a particular war, or a comparison across time.

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

This course surveys British literature from Medieval times to the 20th century. Reading and writing assignments also prepare the student to take the Advanced Placement Test for Literature and Composition in May. Students will read *Beowulf*, *Murder in the Cathedral*, *Sir Gawain and the Green Knight*, *Doctor Faustus*, one Shakespeare play, selections from Chaucer, novels by Huxley and Waugh, and modern fiction. Heavy emphasis is placed on 17th, 18th and 19th century poetry. Students also write short analytical essays. This course prepares students to take the AP Literature and Composition Examination. The syllabus for this course has been approved by the College Board.

Prerequisites: 3.5 - 4.0 average and approval of current English teacher.

JOURNALISM 1 (DP 1524) Grades 10, 11, 12  
2 sem. 1 cr.

The Journalism 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, news writing, writing school news, headline writing, layout principles, photojournalism and advertising. (This course is involved in the production of the school newspaper and is a prerequisite for major staff positions on the school newspaper, *The Stagline*. However, it is not required for contributing writers to the school paper.)

Prerequisite: Permission of instructor.

JOURNALISM 2 (DP 1525) Grades 10, 11  
2 sem. 1 cr.

The second year of Journalism gives more responsibility to the students, as they investigate more fully the topics covered in Journalism 1 and take a greater role in the production of the school newspaper, *The Stagline*.

Prerequisite: Journalism 1.

JOURNALISM 3 (DP 1526)  
Grades 11,12 2 sem. 1 cr.

The second year of Journalism requires students to take active roles as editors and writers of the *Stagline* and the weekly *Red and Blue Review* and *Sports Extra*.

Prerequisite: Journalism 2.

YEARBOOK FUNDAMENTALS (DP 1527)  
Grades 10, 11, 12 2 sem. 1 cr.

Students will learn the process and application of desktop publishing in the creation of the yearbook, the *Stag*. Various topics will be explored including theme development, page

layout, photography/photo editing, copy and caption production, and proofreading. The development of writing and journalistic skills is also stressed. This one credit course culminates with the Participation in its production is a requirement of the course.

Prerequisite: Permission of instructor.

YEARBOOK 2 (DP 1528)  
Grades 11, 12 2 sem., 1 cr.

Yearbook 2 gives more responsibility to the students as they investigate more fully the topics covered in Yearbook Fundamentals and take a greater role in the production of the yearbook.

Prerequisite: Yearbook Fundamentals.

YEARBOOK 3 (DP 1529)  
Grade 12 2 sem. 1 cr.

Yearbook 3 requires students to take active roles as editors and writers of the yearbook.

Prerequisite: Yearbook 2

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.

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

This one-semester course, open to upperclassmen as 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, dominant and subsidiary contrasts, open and closed form. Assignments for the class will include frequent essays, quizzes (some of which will include visual analysis), and tests.

CREATIVE WRITING (DP 1821)  
Grades 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. Student work from this class is often featured in the school's literary magazine, *Felix*.

Prerequisite: Permission of instructor

ADVANCED CREATIVE WRITING  
(DP 1822) Grades 11, 12 1 sem. ½ cr.

This course is geared toward independent study.

At the beginning of the semester, the instructor and student chart out a path for the student to follow, with a focus on one of the three genres introduced in Creative Writing 1. Most of class will be spent engaging the writing process. The philosophy here is that one can only talk about writing for so long before he or she must simply "do it" to improve. Students will have an individual conference with the instructor on a weekly basis so that the instructor can monitor progress and provide in-depth feedback. Student work from this class is often featured in the school's literary magazine, *Felix*. See Independent Study on pp. 17-18 for additional fee information.

Prerequisite: Permission of instructor and successful completion of Creative Writing 1.

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 prepare 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.

Prerequisite: Permission from the instructor, Department Chair, or Counselor

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 Journalist 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.

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 our 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.

In most courses the primary teaching technique utilized is the lecture/discussion method. Other techniques such as 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.

All students are required to obtain a minimum of three credits in Social Studies. The required courses are World History, United States History, and Government. To satisfy the interests of the students, several electives are available for sophomores, juniors and seniors.

WORLD HISTORY (DP 2123)  
Grades 9, 10 2 sem. 1 cr.

A two-semester survey course, this class uses several standard, chronologically-arranged textbooks adapted to various reading levels. The course traces the development of human society from pre-historic times to the present. Two of the more basic objectives of this course are to show the relationship of geography and its effect on history and to give the student a cultural orientation; that is, an ability to judge each culture on its own merits, rather than by a constant comparison to our American culture. Emphasis is placed on vocabulary and verbal skill development in this course.

HONORS WORLD HISTORY (DP 2113)  
Grades 9, 10 2 sem. 1 cr.

This is a two-semester advanced course in World History that will trace the development of human society. Topics covered will range from prehistoric times to current events. There will be a heavy emphasis on understanding the relationship between geography and the development of civilizations, understanding the interrelationships of various events and developing a cultural orientation in students. Cultural orientation entails evaluating each culture on its own merits, rather than making comparisons to American culture. This will be a fast paced course that will include a variety of readings and paper assignments.

ADVANCED PLACEMENT WORLD HISTORY (DP 2153) (5.0)  
Grades 10, 11, 12 2 sem. 1 cr.

In AP World History students investigate significant events, individuals, developments, and processes in six historical periods from approximately 8000 B.C.E. 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 provides five themes that students explore throughout the course in order to make connections among historical developments in different times and places: interaction between humans and the environment; development and interaction of cultures; state building, expansion, and conflict; creation, expansion, and interaction of economic systems; and development and transformation of social structures. Additionally, students will learn to compose various written responses including: document based questions, long essay questions, and short answers. *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. The form may be 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 in the first semester and an introduction to practical law in the second semester. In the first 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. In the second semester, students study practical topics in the law. Criminal, civil, consumer law, family law, and housing law are the topics developed. A senior taking this course will be exposed to various methods of study, organization and reinforcement. A syllabus to guide the study of each student is supplemented with a frequent use of films, simulation experiences and professional 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. Students are encouraged to take the Advanced Placement test in American National Government at the end of the second semester.

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 (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.

THE AFRICAN AMERICAN EXPERIENCE PART 1 (DP 2545) Grades 10, 11, 12 1 sem. ½ cr.

This introductory course in the African-American experience is largely constructed around the voices and language used by black people themselves. The course is organized chronologically, with an emphasis on the ideas of black social thought, political protest and efforts to initiate social change. PART I of the course covers the historical foundations and background to the modern black experience, including: African origins; the Atlantic slave trade; origins of racism in the United States. Focus on life under slavery in the North and South; and religion, family, culture, and resistance up through Reconstruction. Students should consider registering for both Parts I and II for a full credit, but it is not required.

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

HONORS AFRICAN AMERICAN EXPERIENCE PART 1 (DP 2555) (4.5)  
Grades 10, 11, 12 1 sem. ½ cr.

The Honors course will revolve around study of primary source material. The course is still largely constructed around the voices and language used by black people themselves with an emphasis on the ideas of black social thought, political protest and efforts to initiate social change. PART I of the course covers the historical foundations and background to the modern black experience, including: African origins; the Atlantic slave trade; origins of racism in the United States. Students should consider registering for both Parts I and II for a full credit, but it is not required.

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

THE AFRICAN AMERICAN EXPERIENCE PART 2 (DP 2546) Grades 10, 11, 12 1 sem. ½ cr.

This introductory course in the African-American experience is largely constructed around the voices and language used by black people themselves. The course is organized chronologically, with an emphasis on the ideas of black social thought, political protest and efforts to initiate social change. PART II of the course focuses on the past seventy years, from the Great Depression to the Twenty-First century; from the rise of Jim Crow to the modern epidemic of mass incarceration. Focus on constructions of class, gender, and community; the impact of segregation; strategies of protest; economic development; and the role of media. Students should consider registering for both Parts I and II for a full credit, but it is not required.

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

HONORS AFRICAN AMERICAN EXPERIENCE PART 2 (DP 2556) (4.5)  
Grades 10, 11, 12 1 sem. ½ cr.

The Honors course will revolve around students completing an independent research project

focused on a subject of consequence from the 20th or 21st century. The course is still largely constructed around the voices and language used by black people themselves. PART II of the course focuses on the past one hundred and forty years, from Reconstruction to the Twenty-First century; from the rise of Jim Crow to the modern epidemic of mass incarceration. Focus on constructions of class, gender, and community; the impact of segregation; strategies of protest; economic development; and the role of media. Students should consider registering for both Parts I and II for a full credit, but it is not required.

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, industrialization 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 9, 10, 11; 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.

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

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 psy-

chology 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 second (Spring) semester 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.

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 first (Fall) semester 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.

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.

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.

**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, Algebra 2, Geometry/Trigonometry, 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.

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

This is a continuation of Algebra 1. Additional topics include rational and irrational numbers, quadratic equations and systems, exponential and logarithmic functions, & complex numbers.

**Prerequisite:** Minimum "C-" grade in Algebra 1.

HONORS ALGEBRA 2 (DP 3643) (4.5)  
Grades 9, 10; 2 sem. 1 cr.

All the topics listed in Algebra 2 (3623) are covered in greater depth.

**Prerequisite:** Minimum grade of "B-" average in Semester 2 of Honors Algebra 1.

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 2 (3623 or 3633)

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, Algebra 2, Geometry (3535).

GEOMETRY AND TRIGONOMETRY (DP 3526) 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 remainder of the course is dedicated to the study of Trigonometry. Topics will include special triangles, angle conversions, evaluating



trig functions, solving right triangles, radians, sectors of circles, the unit circle, graphing trig functions and applications. A TI-83 plus or TI-84 plus graphing calculator is required for the study of Trigonometry.

Prerequisite: Minimum grade of “C-” in Algebra 2 (3623 only) and approval of the Algebra 2 teacher and the department chair.

HONORS GEOMETRY & TRIGONOMETRY (DP 3546) Grades 10, 11; 2 sem. 1 cr.

All of the topics listed in Geometry and Trigonometry (DP 3526) are covered in greater depth.

Prerequisite: Minimum grade of “B-” in Semester 2 of Honors Algebra 2.

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: Geometry/Trigonometry course, and approval of junior year math teacher and department chair.

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 Algebra 2 (3623 only) and Geometry/Trigonometry and approval from current teacher.

HONORS PRE-CALCULUS (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 Hon. Algebra 2, and Hon. Geometry/Hon. Trigonometry course.

AP 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.

AP 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.

AP 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: Geometry/Trigonometry 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.

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 and Trigonometry.

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 in this class 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.

Prerequisite: None

**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.

Prerequisite: 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 course introduces the student to more programming languages and development environments.

Prerequisite: Minimum B average in Computer Programming 2.

ADVANCED TOPICS IN PROGRAMMING 2  
(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 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.

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

This 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.

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.

**DEPARTMENT OF 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.

ACTIVE PHYSICS (DP 4124)  
Grade 9 1 sem. 1/2 cr.

This course is open only to freshman and is taken in sequence with Biochemistry to satisfy a portion of the full one credit science requirement for freshman year. This course will serve as a preparatory course that will introduce students to not only basic concepts of physics but will serve as an introduction to scientific thinking and methods as well. This course will stress the inquiry approach to science. (Active Physics and Biochemistry are the only one semester courses that count towards the three required credits in science for graduation.)

**BIOCHEMISTRY**

Grade 9

(DP 4125)

1 sem. 1/2 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 procedures of the scientific method.

**HEALTH** (DP 9123) Grade 9 1 sem. 1/2 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.)

**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 1/2 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 classi-

cal 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 PLACEMENT CHEMISTRY** (DP 4553) (5.0) Grades 11, 12 2 sem. 1 1/2 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 emphasis of the course is developing 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/Trigonometry (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 Advanced Placement Physics.

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

**ADVANCED PLACEMENT PHYSICS 1** (DP 4451) (5.0) Grades 11, 12; 2 sem. 1 cr.

AP Physics 1 is an algebra based course equivalent to the first semester of an introductory college physics course for students who do not plan to major in either physics or engineering. This course focuses on the "big ideas" of an introductory college physics course. The course deviates from the traditional "content coverage" to an approach that focuses on a less mathematical and more inquiry based learning model. It will help students develop critical thinking and reasoning skills necessary to help them achieve success in their college science work not only in physics but other areas of the sciences as well. Students taking this course may not take a second physics course (Regular, Honors, AP) for an additional credit the following year.

**Prerequisites:** A minimum 3.0 average in previous math/science course work. Completion of a full year course in both Algebra 1 and Algebra 2, with Honors Algebra 1 and 2 strongly recommended and a minimum final grade no lower than "B" in both Algebra courses.

**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.

MEDICAL SCIENCE (DP 4655)  
Grades 11, 12; 2 sem. 1 cr.

This course will provide an overview of the systems of the human body and the underlying chemical processes that are essential for health. Diseases and their treatments as well as pharmacology will be examined. This course will be useful for those interested in medical related careers. Prerequisites: Biology and Chemistry

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 (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.

GEOLOGY (DP 4823) Grades 11,12  
1 sem. ½ cr.

Geology is the study of the earth and the processes that shape it. Many geologic processes occur so slowly that it is only over long periods of time that significant change occurs. This course will take both a physical and historical view of geology. The physical study of geology will include the understanding of the many physical processes that help to shape our world including plate tectonics, volcanic activity, metamorphism, movement of streams and oceans, weathering, landslides and climate. The historical study of geology will focus on the earth and the movements that have shaped it from the Archean (origin of the universe) to the Cenozoic (the last 66 million years).

Prerequisites: 2 years of science with a course in both Biology and Chemistry.

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.

FIELD BIOLOGY: THE AMAZON (DP 4723)  
Grades 10, 11, 12 1/2 cr.

Rainforest Conservation Biology is a .5 credit science elective offered during the summer. Students engage in scientific field research learning about the rainforest in the Picaya-Samiria National Reserve in Peru. This course can also be used as one of the requirements towards a Diploma with Distinction in Science.

Students travel to a scientific research site run by Dr. Bodemere in the Picaya-Samiria National Preserve. During the two weeks students attend lectures on the formation of the Amazon Basin, the different animals that inhabit the rainforest, how to conduct the different survey techniques, and the Cuomo Indians that inhabit the preserve. Once at the research site, twice a day, students participate in gathering data on the different populations of animals. Students use the different methods used in population sampling such as: conducting terrestrial transects,

mist netting, point surveys, river transects, fishing pole and net fishing. In each of these methods, students record the number and species of the different animals that inhabit the Peruvian Rainforest. Students learn how to enter data into a database that is used in the writing of research articles published in scientific journals, as well as helping the Peruvian government preserve the rainforest and develop sustainable conservation practices.

## 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.

**Regular:** 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.

French 1 consists of an introduction to a limited amount of 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. These limits involve the use of the com-

mon 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.

In the second year of French, the student is introduced to 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) Grade 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 of the works read.

**Prerequisites:** Successful completion of AP French Language and Culture 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 (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 begun 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  
(DP 5253) (5.0) Grade 11, 12; 2 sem. 1 cr.

Spanish 4 is an advanced level course which allows 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 (DP 5523) (4.5)  
Grades 9, 10, 11, 12; 2 sem. 1 cr.

Honors Latin 1 provides an innovative approach to learning Latin while fostering appreciation for the many cultures of the Ancient Mediterranean. 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. The cultural component of the course will focus upon the human element of Ancient

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

Prerequisites: Minimum overall 3.0 average.

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

Honors Latin 2 builds upon the groundwork laid by the successful completion of Honors Latin 1. The course will continue the inductive approach of the previous course to expand greatly the student's proficiency as a reader of Latin, implementing both traditional and internet activities. The student 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 as great figures to life again from the written page.

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

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

Honors Latin 3 completes the student's preparation to read unadapted Latin prose and poetry. Students will read unadapted works from Tacitus, Martial, Ovid, Phaedrus, Catullus, Horace, Vergil, Petronius, Cicero, Livy, and others. The student 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 GERMAN 1 (DP 5423) (4.5)  
Grades 9, 10, 11, 12; 2 sem. 1 cr.

Honors German 1 provides the student with the fundamentals of the German language which form the foundation for later more advanced studies. The student will be exposed to useful and interesting vocabulary as well as basic grammar and communicative functions. The course will focus on the four critical skills of listening, speaking, reading, and writing. Finally, the culture of the German-speaking peoples will be an integral part of the course.

Prerequisite: Minimum overall 3.0 average.

HONORS GERMAN 2 (DP 5424) (4.5)  
Grades 9, 10, 11, 12; 2 sem. 1 cr.

Honors German 2 continues the progression of study begun in Honors German 1 in order to further develop the four critical skills of listening, speaking, reading and writing. Grammatical points will be reviewed and new grammar introduced through useful and interesting vocabulary and situations. Additional reading material will be utilized in order to familiarize the student with grammar as used in the written language. Also, the culture will remain an important part of the course.

Prerequisites: Minimum "C" average in Honors German 1 and approval of the instructor.

HONORS GERMAN 3 (DP 5425) (4.5)  
Grades 11, 12; 2 sem. 1 cr.

Honors German 3 emphasizes the further development of the student's listening, speaking, reading and writing skills through oral and written activities. The ability to read from a variety of sources is also strengthened. Grammatical structures continue to be reviewed and new grammar is presented. Special attention is paid to word order and the building of vocabulary through derivatives. Current topics as pertain to the German-speaking countries are included.

Prerequisites: "B-" in Honors German 2 and permission of the instructor.

TPRS GERMAN (DP 5430)  
Grades 10, 11, 12; 2 sem. 1 cr.

TPRS stands for Teaching Proficiency through Reading and Story-telling and is the methodology used in this course. The goal of this course will be to improve your proficiency in German through reading and story-telling. Most of the class will be spent using German --not using English to talk about German--and the focus will be on listening to and reading stories with high levels of comprehensible input. These stories will initially be created by the teacher but will also require student participation in creating newer and more interesting versions. Grammar points will be integrated into instruction as they naturally occur in the stories. Participation is an integral part of this class as you will be required to be actively involved in the reading, writing and role-playing of the stories. Homework will focus on vocabulary review and the constant retelling (oral and written) of the stories. A foundation in German is required to take this class.

Prerequisites: Successful completion of Honors German 1 and Honors German 2, and permission of the instructor.

ADVANCED PLACEMENT GERMAN 4  
(DP 5453) (5.0) Grades 11, 12; 2 sem. 1 cr.

German 4 enables the student to pursue college level studies in German. Grammar, vocabulary, and sentence structure will be reviewed and expanded. The student will write short compositions to advance his writing ability in German. Oral proficiency in the language will be further developed through conversation and discussion and the student will read from a variety of original sources in German. Through mastery of the above skills, the student will be prepared to take the College Board Advanced Placement Test which, if successfully completed, will qualify him for advanced placement and/or credit at a

participating college or university. (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.

Prerequisites: Honors German 3 and permission of instructor.

HONORS CLASSICAL GREEK 1 (DP 5623)  
(4.5) Grades 10, 11, 12; 2 sem. 1 cr.

Honors Classical Greek I provides an innovative approach to learning the Classical Greek language while fostering appreciation for the many cultures of the Ancient Mediterranean. Language instruction will focus upon the development of translation and reading skills, implementing both regular classwork as well as internet activities. Passages of the New Testament and Septuagint, as well as of prominent ancient philosophers such as Plato and Aristotle, will also be implemented and discussed. In the process, the student will also 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 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 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 Herodotus, 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.

MANDARIN CHINESE 1 (DP 5723)  
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.

MANDARIN CHINESE 2 (DP 5724)  
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.

MANDARIN CHINESE 3 (DP 5725)  
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 experience with cultural topics gleaned from the internet and ancillary materials.

Prerequisites: Mandarin Chinese 2 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. As well, 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. The student 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. Fundamentals of Art and Color 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.

Prerequisite: Fundamentals of Art and Color

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.

DARKROOM BASICS (DP 6922)  
Grades 10, 11, 12; 1 sem. ½ cr

Students learn more advanced techniques in the application of photography using filters, special effects and studio lighting. Using various types of B/W film to photograph projects, the students will learn how to develop their film, interpret the results using a contact sheet and make enlargements in the darkroom. Finished prints will be suitable for framing, exhibition or as a portfolio. Requirements include one text, a working, manual 35mm camera and a \$50 fee for film, paper and chemistry. Materials fee will be collected by the instructor.

PHOTOJOURNALISM 1 (DP 6923)  
Grades 11,12 1 sem. ½ cr.

Students will cover on a weekly basis assignments for the school newspaper and yearbook based on the needs of those publications. A student photo gallery will exhibit work on a weekly basis for everyone to see prior to work being published. Students will learn how to build portfolios and how to choose quality and possibly award winning photographs. Requirements include one text, a working digital camera, flash, telephoto lens and a \$20 lab fee for enlargements. Materials fee will be collected by the instructor. Independent Study.

Prerequisite: Digital Photography, Permission of the Instructor.

PHOTOJOURNALISM 2 (DP 6924)  
Grades 11, 12; 1 sem. ½ cr.

The relationship of the photographer with editors and photo editors of publications is explored in depth. Who has final say about a photographer's work and how it is used in a publication? Ethical issues of photographing people in "a bad light" and censorship/public relations conflicts are discussed. The student continues to cover events for the school paper and yearbook as well as specialized publications. Work is assessed based on content, thoroughness, timeliness of meeting deadlines, and successful publication of a body of work. Independent Study.

Prerequisite: Digital Photography, permission of instructor.

PHOTOJOURNALISM 3 (DP 6925)  
Grades 11, 12; 1 sem. ½ cr.

A continuation of previous courses with emphasis on advanced techniques for sports and illustration photography as well as night available light shooting. Independent Study.

Prerequisite: Digital Photography, permission of instructor.

PHOTOJOURNALISM 4 (DP 6926)  
Grades 11, 12 1 sem. ½ cr.

This last semester of the series deals with portfolio creation, copyright law as it applies to images, legal issues of photographing in public and private locations, model releases, and contract issues with "work for hire" agreements. Independent Study.

Prerequisite: Digital Photography, permission of instructor.

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.

ADVANCED PHOTOSHOP (DP 6929)  
Grades 11, 12 1 sem. ½ cr.

This class builds on the skills learned in Digital Photography, Photoshop 7 and Photoshop CS as well as various plug-ins will be explored in depth. Emphasis will be placed on workflow foundations and RAW image manipulations. Through assigned projects students will learn advanced techniques of enhancing and exaggerating images, color and tone treatments, use of artistic effects, overlays, combining and collaging photos, and pseudo-infrared. Text, digital camera and \$50 lab fee required. *This course fulfills the computer graduation requirement.*

Prerequisite: Digital Photography.

SMART PHONE PHOTOGRAPHY (DP 6931)  
Grades 11, 12; 1 sem. ½ cr.

Students will learn how to get the most from their smart phone or tablet. Besides the basics of composition, lighting, shutter speeds and apertures, students will learn tips and tricks to help ordinary photos become great photos. Emphasis will be placed on getting the most from smartphone apps and special effects. Special tools and accessories will be demonstrated such as supports and lenses. Students will import photos into Photoshop and Lightroom for even more choices of photo manipulation. Required text is The Smartphone Photography Guide by Peter Cope. There is a \$50 lab fee to cover ink, paper, mats, frames, etc for proper presentation. The body of work from this class will be displayed in a new section of the Spring Photography and Art Show.

## MUSIC

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, DeMatha Harmonics and DeMatha Singers) 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 SINGERS 9 (DP 7621)  
Grade 9 only; 1 sem. ½ cr.  
(Repeatable second semester)

This course is open to freshmen only. No audition is required, and no one is excluded. Basic vocal skills and fundamental musicianship are emphasized. Rehearsal and performance techniques are taught, using music written in unison and 2-part harmony.

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 semester course for beginning string students. No previous experience is necessary to join. Students will learn how to play a string instrument through daily instruction. The semester culminates in a performance at the fall concert. After successful completion of Concert Strings I, students will be placed into Concert Strings II.

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.

## 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 I (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.

This course is an introduction to the business

world. Students will learn the meaning of business, the different types of businesses, and how to set up and operate a business. The course focuses on small business and entrepreneurship. Each student will design a small business of his own and create a business plan that will be presented with the purpose of obtaining a loan to start the business. The course is designed to interest students in owning their own business. \*\*\*Sophomores must have the approval of the instructor with the Counseling Center's consent.

**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 8 for course description.)*

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

This course concentrates on the principles of personal finance and introduces the consumer protection aspect of business law. Students will learn their rights and duties when making purchases, when entering into contracts, incurring debt, and many other consumer and business transactions. Additionally, the students gain valuable insight into areas such as student loans, insurance, obtaining credit, purchasing automobiles and homes, paying off debt, investing, and saving for retirement. A highlight of the course is the stock market game, which allows students to create their own portfolio and track their investments in real time. Students will learn how to avoid mistakes which at a young age can cause long lasting financial problems.

**MARKETING CONCEPTS** (DP 8610)  
Grades 11, 12; 1 sem. ½ cr.

Marketing Concepts is designed to present contemporary applications of many different aspects of marketing strategies. This course will lay the groundwork for those students interested in further understanding the Marketing process in regards to everyday consumer and some business products, or are interested in a marketing/business career after high school or studying marketing/business in college. Throughout the course we will refer to current events in the marketing world from advertisements on television and in magazines and view/discuss video case studies done on various companies. The course consists of, but is not limited to the following: Marketing, Creating Satisfaction Through Customer Relations; Strategic Planning and Marketing Process; Consumer Behavior; Marketing Segmentation, Targeting, and Positioning; Advertising; Category and Brand Management; Price Concepts and Approaches; and Pricing Strategies.

### 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 the body for exercise. Each student will be given a physical fitness test. 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.

**This course does not count toward the seven credit yearly minimum (six and a half for seniors) that students are required to take each year.**

### 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. Students 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  
Science Seminar and Investigation  
Honors French 5, 6  
Photojournalism 1, 2, 3, 4

**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 the following 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 ACE/Ecology 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

<b>English</b>	
Journalism 1, 2, 3	5
Yearbook Fundamentals	5
Yearbook 2, 3	5
Mythology 1	5
Film Study	5
Creative Writing	5
Advanced Creative Writing	5
Speech	5
Video Broadcast Journalism	6
ESOL	6
Research and Presentation	6
<b>Social Studies</b>	
Advanced Placement World History	6
The African American Experience Parts 1 and 2	7
Honors The African American Experience Parts 1 and 2	7
Advanced Placement Human Geography	7
Honors History and Systems of Psychology	7
Understanding 9/11	7
Honors Foundations of Psychology	8

<b>General Psychology</b>	8
<b>Economics</b>	8
Advanced Placement Economics	8
<b>Mathematics</b>	
Statistics	9
Advanced Placement Statistics	9
<b>Computer Science and Engineering</b>	
Research and Presentation	9
HTML	9
Engineering Design and Problem Solving	9
Honors Engineering Design and Problem Solving	9
Robotics	9
Advanced Robotics	9
Introduction to Prototyping	10
Advanced Topics in HTML	10
Computer Programming 1	10
Computer Programming 2	10
Advanced Topics in Programming 1	10
Advanced Topics in Programming 2	10
Advanced Placement Computer Science	10
Advanced Placement Computer Science Principles	10
Seminar in Computer Science	10

<b>Sciences</b>	
Advanced Placement Physics I	11
Advanced Placement Physics	11
Advanced Placement Environmental Science	12
Seminar and Investigation	12
Human Anatomy and Physiology	12
Biotechnology	12
Geology	12
Astronomy	12
Field Biology: The Amazon	12

<b>World Languages</b>	
AP French Language and Culture	13
Honors French 5	13
Spanish 4	14
Honors Spanish 4	14
Advanced Placement Spanish	14
Advanced Placement Latin 4	14
TPRS German	15
Advanced Placement German 4	15
Honors Classical Greek 1, 2, 3	15

<b>Art</b>	
Fundamentals of Art and Color	15
Drawing	16
Painting	16
Advanced Art	16
Darkroom Basics	16
Photojournalism 1, 2, 3, 4	16
Digital Photography	16
Advanced Photoshop	16
Smart Phone Photography	16

<b>Music</b>	
Percussion Ensemble I	17
Percussion Ensemble II	17
Advanced Percussion Ensemble	17
Concert Band	17
Concert Band I, II	17
Symphonic Band	17
Wind Ensemble	17
DM Singers 9	17
Voices of DeMatha	17
DeMatha Harmonics	17
Sinfonia	17
Concert Strings I	17
Concert Strings	17
Advanced Music Theory 1,2,3,4	17

<b>Business</b>	
Accounting 1	17
Business Topics 1	17
Economics	17
Advanced Placement Economics	18
Personal Finance	18
Marketing Concepts	18

<b>Physical Education</b>	
Introduction to Sports Medicine/Athletic Training	18
Body Composition	18

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

<b>Health</b>	
All Art courses	
All Photography courses	
Some Sciences courses	

### PROGRAM OF STUDIES

The DeMatha Way (Freshmen only)

<b>Theology</b>	
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	
Fundamentals of Catholic Thought and Tradition	
Sacramental Theology	
Catholic Social Teaching	
Catholicism in an Ecumenical World	

<b>English</b>	
English 9	
Honors English 9	
Survey of American Literature	
Honors American Literature	
World Literature	
Honors World Literature	
Advanced Placement English Language and Composition	
British Literature	
Honors British Literature	
Crime and Detective Fiction	
Twentieth Century Novel	
Science Fiction	
Dystopian Literature	
War Narratives	
Film Study	
African American Literature	
Tolkien's <i>Lord of the Rings</i>	
Catholic Writers	
Senior Composition	
Advanced Placement English Literature and Composition	
Journalism 1, 2, 3	
Yearbook Fundamentals	
Yearbook 2, 3	
Mythology 1	
Creative Writing	
Advanced Creative Writing	
Speech	
Reading and Study Skills	
Video Broadcast Journalism	
ESOL	
Research and Presentation	
<b>Social Studies</b>	
World History	
Honors World History	
U.S. History	
Honors U.S. History	
Advanced Placement U.S. History	
Government/Law	
Honors Government	
Advanced Placement Government	
The African American Experience Parts 1 and 2	
Honors The African American Experience Parts 1 and 2	
Advanced Placement Human Geography	
Honors Foundations of Psychology	
Honors History and Systems of Psychology	

<b>General Psychology</b>	8
<b>Economics</b>	8
Advanced Placement Economics	8
Understanding 9/11	
<b>Mathematics</b>	
Algebra 1, Part 1	9
Algebra 1, Part 2	9
Algebra 1	9
Honors Algebra 1	9
Algebra 2	9
Honors Algebra 2	9
Geometry	9
Trigonometry	9
Geometry and Trigonometry	9
Honors Geometry and Trigonometry	10
Pre-Calculus	10
Honors Pre-Calculus	10
Advanced Placement Calculus AB	10
Advanced Placement Calculus BC	10
Statistics	10
Advanced Placement Statistics	10
<b>Computer Science and Engineering</b>	
Research and Presentation	11
HTML	11
Advanced Topics in HTML	11
Computer Programming 1	12
Computer Programming 2	12
Advanced Topics in Programming 1	12
Advanced Topics in Programming 2	12
Advanced Placement Computer Science	12
Advanced Placement Computer Science Principles	12
Seminar in Computer Science	12
Engineering Design and Problem Solving	12
Honors Engineering Design and Problem Solving	12
Robotics	13
Advanced Robotics	13
Introduction to Prototyping	13
<b>Sciences</b>	
Health	14
Active Physics	14
Biochemistry	15
Biology	15
Honors Biology	15
Biotechnology	15
Marine Biology	15
Medical Science	15
Forensic Science	16
Advanced Placement Biology	16
Chemistry	16
Honors Chemistry	16
Advanced Placement Chemistry	16
Physics	16
Honors Physics	16
Advanced Placement Physics	16
Advanced Placement Physics 1	16
Advanced Placement Environmental Science	17
Seminar and Investigation	17
Honors Human Anatomy & Physiology	17
Geology	17
Astronomy	17
Field Biology: The Amazon	17
<b>World Languages</b>	
Honors French 1, 2, 3	17
AP French Language and Culture	17
Honors French 5	17
Spanish 1, 2, 3, 4	17
Honors Spanish 1, 2, 3, 4	17
Advanced Placement Spanish	17
Honors Latin 1, 2, 3	17
Advanced Placement Latin 4	17
Honors German 1,2,3	17
TPRS German	17
Advanced Placement German 4	17
Honors Classical Greek 1, 2, 3	18
Mandarin Chinese 1, 2	18
<b>Arts</b>	
Fundamentals of Art/Color	18
Drawing	18
Painting	18
Advanced Art	18
Darkroom Basics	18
Photojournalism 1, 2, 3, 4	18
Digital Photography	18
Advanced Photoshop	18
Smart Phone Photography	18

<b>Music</b>	
Percussion Ensemble I, II	
Advanced Percussion Ensemble	
Concert Band	
Concert Band I, II	
Symphonic Band	
Wind Ensemble	
DM Singers 9	
DeMatha Harmonics	
Voices of DeMatha	
Concert Strings I	
Concert Strings	
Sinfonia	
Advanced Music Theory 1, 2, 3, 4, 5, 6	
<b>Extracurricular Music</b>	
Jazz Ensemble	
Jazz Lab	
Pep Band	
<b>Business</b>	
Accounting 1	
Business Topics 1	
Economics and AP Economics (Cross-listed in the Social Studies Department.)	
Personal Finance	
Marketing Concepts	
<b>Physical Education</b>	
Physical Education	
Introduction to Sports Medicine & Athletic Training	
Body Composition	

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

**SAMPLE PROGRAMS**

**SAMPLE MATH PROGRAMS**

**Class of 2020 and beyond:**

**GRADE 9**

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

**GRADE 10**

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

**GRADE 11**

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

**GRADE 12**

Christian Life plus 1 elective  
Brit. Lit. plus 1 Senior Seminar  
Government  
Mathematics  
--2 and 1/2 electives

(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) or Algebra 3

(3)

**(For most DeMatha students)**

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

(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

**Course Planning Worksheet:**

**(Place core courses label here.)**

**Alternate courses must equal two full credits and should be listed in order of preference:**

**Alternate course(s):**

- 1. \_\_\_\_\_ Credit: \_\_\_\_\_
- 2. \_\_\_\_\_ Credit: \_\_\_\_\_
- 3. \_\_\_\_\_ Credit: \_\_\_\_\_
- 4. \_\_\_\_\_ Credit: \_\_\_\_\_

**Important: The normal course load is a minimum of seven credits for all students. (8 credits with Counselor approval)**