

Arlington Catholic High School

Program of Studies

2009 - 2010

This booklet is designed to acquaint you with the courses available at Arlington Catholic High School. You must carry a program of six full credit courses per year. Careful consideration should be given to your abilities, interests, and aptitudes when choosing courses. Any student who is permitted to take a seventh course may not drop that course after the add/drop period. Requirements for high school graduation and for college admission are also important factors in course selection. Students should consult with parents, teachers, and guidance counselors when selecting courses.

Requirements for Graduation

English	4 years
Theology	4 years
Christian Service Hours (see Theology Department section)	60 hours
Math (Algebra I, Geometry, Algebra II)	3years
Science (Biology, Chemistry + Additional Science)	3 years
Social Studies (World History, US History)	2 years
Language (French, Latin, Spanish)	2 years
Physical Education	2 years

Honors and Advanced Placement Courses

Honors (Grades 10, 11, 12)

- A minimum of a B- average in the appropriate Honors level prerequisite college preparatory course(s).
- A minimum of a B+ average in the appropriate prerequisite college preparatory course(s).
- Since topics covered are cumulative and require considerable critical thinking, regular school attendance, including a minimal number of tardies and dismissals, is required.
- Standardized test scores including EXPLORE, PSAT, SAT etc. if applicable.
- Department approval.

Honors (Grade 9)

- A minimum of a B+ average in the appropriate subject area in grades seven and eight.
- Scores on standardized tests, including the High School Placement Test, that indicate the student is capable in a particular subject area.
- Scores on Arlington Catholic's Placement Exams in applicable subjects
- Since topics covered are cumulative and require considerable critical thinking, regular school attendance, including a minimal number of tardies and dismissals, is required.
- Department approval.

Advanced Placement

- Acceptance into Advanced Placement courses is based upon the above standards as well as upon those specified in the designated course. Preference is given to students in the Honors Sequence.
- Students applying to AP English or AP Social Studies must submit a writing sample from their English Writing Folder to the English or social studies department chair.

**** Please note that no one standard automatically qualifies a student's placement into a course.**

Requirements

Grade 9

English 1
Language
Algebra 1
Theology 1
World History 1
Physical Education

Grade 10

Biology (if not yet taken)
English 2
Language
Geometry
Theology
Physical Education

Grade 11

English 3
Algebra 2
Theology 3
United States History

Grade 12

English 4
Theology 4
Chemistry (if not yet taken)

Electives

Grade 9

App. 1/App. 2
Art 1
Biology
Dramatic Arts
Honors Latin 1
Intro. To Science

Grade 10

App. 1/ App. 2
AP World History
Art 1
Chemistry
Comp. Program 1
Creative Writing 1
Design
Dramatic Arts
French 1
Honors Latin 1,2
Honors World History 2
Painting & Drawing
Sculpture
Spanish 1
World History 2
Web Design

Grade 11

Accounting
Anatomy & Physiology
App. 1/ App. 2
AP Biology
AP Chemistry
AP U.S History
AP English Literature
Art 1
Chemistry
Computer Modeling &
Applied Algorithms
Comp. Program 1
Creative Writing 1
Design
Dramatic Arts
Environmental Science
French 1, 2, 3, 4
History, Society, & Film
Honors Anat.& Physiology
Honors Biology 2
Honors Latin 1, 2
Honors Latin 3
Honors U. S. History
Journalism
Painting & Drawing
Sculpture
Spanish 1, 2, 3, 4
Visual Arts Studio
Web Design

Grade 12

Accounting
American Law & Society
Anatomy & Physiology
App. 1/ App. 2
AP Biology
AP Calculus
AP Chemistry
AP English Literature
AP French/ Hon. French 5
AP Latin 4
AP Psychology
AP Spanish/ Hon. Spanish 5
Art 1
Computer Modeling &
Applied Algorithms
Comp. Programming 1
Design
Dramatic Arts
Economics
Environmental Science
French 2, 3, 4
History, Society, & Film
Honors Anat.& Physiology
Honors Art History
Honors Calculus
Honors Latin 2
Honors Latin 3
Honors Physics
Intro. to College Algebra
Journalism
Painting and Drawing
Physics
Pre-Calculus
Psychology
Spanish 2, 3, 4
Sculpture
The U.S. Since WWII
Visual Arts Studio
Web Design

English Department

All students are required to take four years of English, 1-4

ENGLISH 1 – 010

1 Credit

Freshman English introduces a comprehensive survey of traditional grammar to serve as a building block for effective writing. Students work on the basics of essay writing, particularly in the expository mode. Another goal of English I is to acquaint students with the literary genres of fiction, non-fiction, poetry, and drama through the anthology approach along with building vocabulary skills and analyzing literature critically. Outside and summer readings are also requirements of the course.

Grade: 9

ENGLISH 2 – 020

1 Credit

Sophomore English builds upon the skills and concepts introduced in the Freshman Course. Composition is emphasized; the writing instruction stresses effective diction, usage, sentence structure, and logical presentation of ideas. Outlining and revision of essays are also treated so that, by the end of the sophomore year, the students are capable of writing longer and more challenging papers. In the literature, the students continue to study the various genres of fiction, poetry, non-fiction, and drama. Outside and summer readings are also requirements of the course.

Grade: 10

ENGLISH 3 – 030

1 Credit

The Junior English program offers an extensive survey of American Literature and expands upon the writing and language skills from English 2. This course combines a survey of works by American authors from the Puritans to the present with an intensive language program stressing vocabulary development, expository writing, and SAT preparation. A term paper on a literary topic will be required of all students. Outside and summer readings are also requirements of this course.

Grade: 11

ENGLISH 4 – 040**1 Credit**

To prepare students for Composition at the college level, Senior English presents an overview of the four genres of literature based on a formalistic approach. More emphasis is placed upon syntax, diction, tone, imagery, and structure than on a traditional historical anthology approach. The readings are complemented by literary analyses of increasing sophistication. SAT preparation and the college essay are integral parts of the course. A research paper on a literary topic is required of all students.

Grade: 12

HONORS ENGLISH**1- 011; 2 - 021; 3 -031; 4- 041****1 Credit**

An Honors section is offered in English courses, Grades 9 through 12. The purpose of each course is essentially the same as that of the regular sequence for these years, respectively. However, the Honors curriculum is more intensive; and the pace and depth of the course are greater. A student in the honors program is expected to work more independently and to do additional outside readings.

Grades: 9, 10, 11, 12

ADVANCED PLACEMENT ENGLISH (LITERATURE AND COMPOSITION)– 050**1 Credit**

Advanced Placement English is a college-level course which combines the reading and critical analysis of literature with extensive and detailed student composition. Students write essays interpreting works from a wide range of literary genres. The course prepares students to earn college credit by taking the Advanced Placement Examination in Literature and Composition. Admission to the course is dependent upon departmental approval. Summer reading is required. Any student taking this course is required to take the AP Examination.

Requirements: Students interested in this course are strongly urged to take Honors English in their junior year and to maintain a B average. Applicants from Standard English must have an A-average.

Grade: 11, 12

CREATIVE WRITING I - 0511 Credit

This elective course offers students the opportunity to express their creative impulses through writings other than the standard expository essay. Students do daily journal-writing activities designed to view ordinary objects and experiences in more fresh, vivid and interesting ways. The primary mode of expression is free verse poetry, although the class does include an introduction to writing memoir and short fiction as well. Students are encouraged to enter writing contests and look for publishing opportunities. One important focus of the class is to contribute to “Imaginary Gardens,” the school literary and artistic publication. Since the primary audience for student writing is the other members of the Creative Writing class, participation is graded and constitutes a significant portion of the student’s mark.

Grades: 10, 11

DRAMATIC ARTS – 0601 Credit

This elective course integrates performance with reading and writing. The performance arts will bring literature and writing to life. Activities will include physical warm-ups, acting exercises, improvisation, and scene work. Students will use stories, plays, and other art forms such as music as springboards for writing scripts, monologues, and essays. Students may attend drama workshops and/or local performances.

Open to all students; preference will be given to juniors and seniors

JOURNALISM – 0541 Credit

This course is designed for students who desire to learn a practical approach to journalistic writing. Students will learn to refine their style of writing using news writing techniques. Topics will include news writing, mass media, reporting, and techniques for producing a school newspaper. Students in the class will provide leadership for the school newspaper, The Cougar Chronicle, **but do NOT have to join the newspaper staff in order to take this course.**

Grades: 11, 12

Social Studies Department

WORLD HISTORY I – 110

1 Credit

This course is a survey of the great civilizations of the world. The course begins by examining and comparing the mythologies of several world cultures. Students learn about the histories and culture of Greece and Rome; the rise of the Islamic World; and the development of Europe through the Middle Ages and the Renaissance. The course concludes with a study of the French Revolution and the Enlightenment and their impact on the rest of the world. Students develop skills in geography and writing, as well as in document reading and analysis.

All students are required to take World History in their freshman year

Grade: 9

HONORS WORLD HISTORY 1 – 111

1 Credit

This course is a study of the great civilizations of the world, beginning with the earliest civilizations that developed in the Middle East and Africa, and ending at the time of the French Revolution. Students will study all aspects of a civilization: politics, culture, religion, and geography. Emphasis will be placed on critical reading and writing as well as the development of a student's analytical skills.

Grade: 9

WORLD HISTORY II – 123

1 Credit

By continuing the study of growth and development of nations from the Industrial Age to the present time, students develop a deeper awareness and concern for the other people in the world. Completion of World History II is required for Honors or AP United States History.

Grade: 10

HONORS WORLD HISTORY II – 124

1 Credit

This honors course covers the same material as the regular World History II course with a greater emphasis on analysis of issues and writing. Completion of World History II is required for admission to Honors or AP U.S History.

Grade: 10

ADVANCED PLACEMENT WORLD HISTORY -1251 Credit

This course allows students to develop greater understanding of the evolution of global processes and contacts, in interaction with different types of human societies. Students examine and compare changes and the consequences of these changes throughout world history; it is these changes that, over time, have resulted in the knitting of the world into the tightly integrated whole it is today. The AP World History Exam covers material from approximately 8000 B.C. through the present day. Given the time frame for the course, preference will be given to students who have completed Honors World History I, although the Department Chair/course instructor may allow students who did exceptionally well in World History I to select this course. All students are required to take the AP exam in May.

Grade: 10

UNITED STATES HISTORY – 1501 Credit

This is a comprehensive study of the main themes from Colonial America to the end of WWII. This course focuses on presidential administrations, foreign policy, and social/economic conditions.

Grade: 11

HONORS UNITED STATES HISTORY -1511 Credit

This is a detailed study of the growth of America's social, political, and economic issues. The students are guided through history by their interpretation of various primary sources. The course covers the period from the Founding Fathers to the end of WWII. Quarterly reports and outside readings are assigned. Students who take this course are prepared to take the SAT II American History subject test of the College Board.

Grade: 11

Requirement: Completion of World History II

**ADVANCED PLACEMENT
UNITED STATES HISTORY – 152**1 Credit

This course concentrates on the study of the various periods and developments of American history and American institutions. The course includes extensive reading, analytical papers, a research paper, book reviews, and various case studies. The students are required to take the Advanced Placement Examination in United States History. This is a college-level course for which many colleges and universities give credit based upon successful performance on the AP Exam.

Grade: 11

Requirement: Completion of World History II

HISTORY, SOCIETY, AND FILM – 1401 Credit

This elective looks at how the film industry developed, how it has influenced society, and how society has influenced the film industry. Students use their analytical skills to question the various images of American they see from movies and determine why these people, places, and events are presented in such a manner. Finally, students study whether or not filmmakers have the responsibility and obligation to interpret these people, places, and events accurately.

Grades: 11, 12

THE UNITED STATES SINCE WWII – 1421 Credit

This course is an in-depth look at significant domestic and foreign policy issues that will affect America and the rest of the world in the early 21st century. The main focus of the course is the examination and discussion of the current role of the United States in the expanding world economy and the War on Terrorism.

Grade: 12

ECONOMICS – 1411 Credit

This course is designed to promote the understanding of economics as a way of thinking. Students study such concepts as supply and demand, business decisions, and competition and markets, and the role of government in different economic systems. Students then apply these principles to current issues such as inflation, unemployment, deficit spending, and fiscal and monetary policy. Group and class discussions, field work, and outside projects are major components of this course.

Grade: 12

PSYCHOLOGY – 1431 Credit

This course examines human behavior and thought processes. Among the topics that will be covered are: research methods, social psychology, how our brain and nervous system affects our behavior, sensation and perception, learning and memory, development across the lifespan, and personality and psychological disorders. Students will apply their study of psychology to their lives and will examine how the various perspectives, within this discipline, interpret the topics discussed. Students will be required to do independent reading to prepare for class, actively participate and complete outside class projects.

Grade: 12

ADVANCED PLACEMENT PSYCHOLOGY – 1471 Credit

As outlined by the College Board, Advanced Placement Psychology introduces students to the systematic and scientific study of the behavior and mental processes of human beings and other animals. Students are exposed to the psychological facts, principles, and phenomena associated with each of the major sub-fields within psychology (neuroscience, development, learning, personality, etc.). Students also learn about the methods that psychologists use in their study. This course requires independent reading (including one book over the summer), outside projects/ experiments, and extensive class participation. Emphasis is placed on the ability to think, read, and write in a critical fashion. Students must take the Advanced Placement examination in May.

Grade: 12

Requirements: An above average performance in previous science and English courses.

AMERICAN LAW AND SOCIETY – 1451 Credit

This course examines American Law in our judicial system today. Subject matter covered during the course of the year include: The Bill of Rights, the 14th Amendment, United States Supreme Court decisions that relate to issues such as due process of law, Miranda Rights, search and seizure, self incrimination, etc. other topics included the court system, public and private law enforcement agencies, and correctional institutions.

Grade: 12

Mathematics Department

All students are required to take Algebra 1, Geometry, and Algebra 2, and the TI-84 Plus (Silver Edition) graphing calculator is required in all math classes.

HONORS ALGEBRA 1 – 210

1 Credit

The course is designed for the student well prepared by fundamental pre-algebra. Moving at a rapid pace, students are challenged by a highly competitive atmosphere. Students discover and develop algebraic concepts and skills by relating their knowledge of numbers to the variable. Topics include the language of sets, linear equalities, and inequalities, quadratic equations, linear systems, and functions. Numerous word problems provide practical application of the concepts being developed.

Grade: 9

ALGEBRA 1 - 211

1 Credit

Algebra 1 is designed to give the students a solid foundation in basic algebraic concepts and skills which include sets, structure of number systems, equalities and the coordinate plane. Highlighting some of the key areas of introductory geometry and basic logical reasoning, provides students the underlying groundwork for future mathematics courses.

Grade: 9

ADVANCED ALGEBRA 1 / GEOMETRY -212

1 Credit

This advanced course covers Honors Algebra 1 and Honors Geometry topics at an accelerated pace. It is designed for highly motivated students with exceptional math skills and a strong background in Algebra.

Grade: 9

ADV. GEOMETRY / ALGEBRA 2 – 2131 Credit

This Advanced Course completes Honors Geometry and Honors Algebra 2 at an accelerated pace. It is designed for highly motivated students with exceptional mathematical skills.

Grade:9, 10

HONORS GEOMETRY – 2201 Credit

The work centers around two basic understandings: the development of geometrical principles on a plane, and the nature of mathematical proofs. These two objectives are met by starting with undefined terms, such as points, line and plane, and then proceeding through the axioms and postulates to the theorems. In this approach, concepts are important as they relate to one another. In Honors Geometry the subject matter is studied in greater depth than in the regular course.

Grade: 10

GEOMETRY – 2211 Credit

Basic concepts of Geometry which include point, line, and plane are discussed; various axioms, postulates and theorems contributing to the understanding of proofs are studied. The reinforcement of algebraic concepts helps to foster an understanding of mathematical reasoning and to illustrate the interrelation between Geometry and Algebra. Basic trigonometric ratios are also explored.

Grade: 10

HONORS ALGEBRA 2 & TRIGONOMETRY– 2301 Credit

This is an intensive course in Algebraic skills which goes into greater depth and at a more accelerated pace than Algebra 2 & Trigonometry. Topics covered will include linear and quadratic functions, matrices, complex numbers, analytic geometry and trigonometry. These topics are necessary for the study of Calculus.

Grade: 10, 11

ALGEBRA 2 & TRIGONOMETRY – 2311 Credit

This course consists of a detailed development of algebraic theory in the rational, real, and complex number systems. The subject matter deals with the study of relations, their properties and graphs with attention to the polynomial, logarithmic, exponential, and circular functions. This course is a strong foundation for all higher mathematics courses.

Grade: 10, 11

ALGEBRA 2 - 2321 Credit

This course is similar to course #231 , but without the trigonometry component. The material will be presented in a less theoretical way and at a moderate pace that will provide the student the best possible chance for success.

Students completing this course will be prepared to take Introduction to College Algebra in their senior year.

A TI-84 (Silver Edition) graphing calculator is required.

Grade: 11

INTRODUCTION TO COLLEGE ALGEBRA– 2431 Credit

This course is designed for the student who would like to take a fourth year of Mathematics in preparation for college. The focus is on a thorough review of Algebra 2, as well as on a review of SAT's in preparation for the SAT tests. The course also covers simple right triangle trigonometry.

Grade: 12

HONORS PRE-CALCULUS – 2421 Credit

This course is intended for the above average math students. The same topics studied in Pre-Calculus are studied in this course, but at an accelerated pace. More emphasis is placed on the theory and use of the graphing calculator.

Grades:10, 11, 12

HONORS CALCULUS - 2451 Credit

This course will prepare students for a calculus course in college. Topics covered will include a review of algebra, functions and graphs, derivatives, applications of the derivatives, exponential and logarithmic functions, integration, and applications of integration.

Grade: 11, 12

PRE-CALCULUS – 2411 Credit

This course is intended for average and above-average math students. Topics include: coordinate geometry, polynomials, inequalities, functions, exponents and logarithms. Time permitting topics would also include trigonometric addition formulas. The content taught in this course applies algebraic processing with geometric concepts to analyze data and graphs.

Grades: 11, 12

ADVANCED PLACEMENT CALCULUS AB – 2401 Credit

Advanced Placement Calculus is a college- level course which includes differential and integral calculus, and their applications. This course is intended for those students who are planning careers in engineering, mathematics, or computer science, and prepares students to earn college credit and/or take the Advanced Placement exam. Any student wishing to take this course is required to take the Advanced Placement Calculus AB Exam.

Grade: 11, 12

ADVANCED PLACEMENT CALCULUS BC – 2501 Credit

Calculus BC is a full-year course in the calculus of functions of a single variable. It includes all topics covered in Calculus AB plus additional topics. This course represents college-level mathematics for which most colleges grant advanced placement in a mathematics class and college credit. Any student wishing to take this course, must have successfully completed one full year of Calculus, be recommended by his/her Calculus teacher and is required to take the Advanced Placement Calculus BC exam.

Grade: 12

COMPUTER MODELING and APPLIED ALGORITHMS – 256**1 Credit**

Designed to complement other mathematics and science courses at AC, this course explores algorithms and solution sets commonly taught in geometry, algebra, physics, and chemistry, and also touches upon problems in social science as well. Interesting and real-world problems, which may include: projectile motion, minimum cost scenarios, predator-prey models, the spread of disease or pollution, exponential growth and decay, and the logistics of a military campaign. Topics of discrete mathematics underpin all models created and include number theory, probability, enumeration, decision-making in finite settings, combinatorics, graph theory, iteration, recursion, and matrices. A variety of computer programming and simulation tools will be used including MS Excel, Stella, Geometer's Sketchpad, StarLogo and Flash.

Grades: 11, 12

Computer Science

APPLICATIONS 1 /**APPLICATIONS 2 – 251****1 Credit**

This laboratory class is designed to develop an understanding of and literacy about computers and digital technology. In addition to using print and electronic textbooks, the Internet is integrated throughout both semesters of this split topic course. During the first semester (Applications 1), students develop expertise in the use of the Microsoft Office Suite, covering advanced Word topics, Excel spreadsheets, and Access databases.

In the second semester (Applications 2), students explore desktop publishing and graphic design. Beginning with advanced topics in Microsoft Power Point and then moving on to Adobe In Design for advanced page layout, the course covers aspects of the design and production of communication products. The course also covers electronic publishing including producing Adobe PDF documents and basic Internet web pages.

Grades: 9, 10, 11, 12

WEB DESIGN – 257**1 Credit**

In this course on developing content for the Internet, students learn to create dynamic and interactive web sites. In the first semester, students learn to write HTML code and use Adobe Go Live to create web pages that include tables and frames. Effective graphics are a big part of programming for the web, and students also learn to use Adobe Photoshop to manipulate graphics files.

In the second semester, students learn to use forms and JavaScript to make their web pages more interactive and responsive to the user. Students also explore audio and video helper applications to add multimedia components to their projects.

Grades: 10, 11, 12

COMPUTER PROGRAMMING 1 – 2531 Credit

Designed as a first course in computer programming, students use Visual Basic.NET to write Windows-based software that is object-based and employs graphical interfaces. The learning objectives include: understanding the concepts of objects, methods and events, creating programs that can solve real-world problems, making effective decisions, efficiently using loops, and developing algorithms. In the second semester, students employ Visual Basic's graphic capabilities as they learn to program their own original games, as well as arcade classics.

Grades: 10, 11, 12

ACCOUNTING – 8411 Credit

This course provides a foundation in basic accounting skills. Problems are analyzed and solved using the steps of the accounting cycle. Concentration in the first semester is on the sole proprietorship using the general journal. During the second semester, concentration is on the corporation using special journals. Attention is given to financial statements, six and eight-column worksheets, adjusting and closing entries.

Grades: 11, 12

Science Department

All students are required to take three years of science, two of which must be Biology and Chemistry.

INTRODUCTION TO SCIENCE – 311

1 Credit

This course is designed to acquaint students with some of the most important concepts in the biological, physical and space sciences. This is an introductory level course, which includes lab activities that provide an excellent foundation for biology, chemistry, and physics.

Grade: 9

HONORS BIOLOGY 1 -320

1 Credit

Honors Biology 1 is designed for freshmen who plan to take four years of science at Arlington Catholic and have demonstrated high aptitude in mathematics and reading comprehension. It is a laboratory-based course intended to provide those students with an in-depth knowledge of biology and to further develop their investigative and interpretive skills. Its content is taught on a molecular level, allowing students a better understanding of the rapid advances in biotechnology. Topics include: cells, DNA structure, protein synthesis, genetics, evolution, recombinant DNA technology, as well as a deeper study of life processes as they relate to various organisms. This course requires independent research and study. Sophomores who meet the requirements may also elect to take this course

Grades: 9, 10

BIOLOGY 1 – 321

1 Credit

Biology 1 is a **required laboratory course** offered to freshmen and sophomores. This course is designed to heighten awareness of the interdependence of living organisms with the environment. Topics covered include: cell structure and function, biochemistry of organic nutrients, classification, plant and animal structure, energy transformations, DNA, genetics, and life processes as they relate to various organisms.

Grades: 9, 10

HONORS BIOLOGY 2 – 342**1 Credit**

Honors Biology 2 is open to juniors and seniors who plan to continue their study of science in college. This course has been designed in conjunction with Honors Biology 1 to give students a thorough foundation in biological science. Topics include: biochemistry, photosynthesis, cell respiration, DNA, gene expression, DNA technology, embryology and development, plant anatomy and physiology, comparative anatomy and physiology of animals, and biodiversity. Independent research is required.

Grades: 11, 12

ADVANCED PLACEMENT BIOLOGY –344**1 Credit**

AP Biology is a course designed to be the equivalent of a college introductory biology course usually taken by biology majors during their first year. Colleges may grant credit, appropriate placement in college courses, or both, to students who have scored satisfactorily on the AP exam. Goals of this course include the following: to help students develop a conceptual understanding of science as a process; to give students personal experience in scientific inquiry; to study unifying themes that integrate major topics in biology; and to apply knowledge and critical thinking to environmental and social concerns. Topics covered include: the chemistry of life, cells and their structure, cellular respiration and photosynthesis, heredity, molecular genetics, evolutionary biology, diversity of organisms, structure and function of plants and animals, and ecology. The course also requires students to participate in laboratory experiments, which may involve extra time before and after school. In addition, students must complete a summer assignment prior to the start of the course in the fall. Students are required to take the AP Biology Exam.

Grades: 11, 12

Requirements: Students must have received at least an A- in both Honors Biology 1 and Honors Chemistry in addition to having above average reading comprehension. **Departmental approval is required for enrollment in this course.**

CHEMISTRY – 351**1 Credit**

A TI-84 graphing calculator (Silver Edition) is required for this course.

Chemistry is a **required laboratory course** offered to sophomores, juniors, and seniors. This course is designed to familiarize students with the basic concepts involved in chemistry. Topics covered include: structure, properties and classification of matter, physical and chemical changes in matter; formula writing, chemical equations, atomic structure, periodic properties of the elements, chemical bonding, behavior of gases and the gas laws, acids, bases and salts, solution chemistry and basic stoichiometry. Laboratory exercises are designed to reinforce principles taught in the class.

Grades: 10, 11, 12

HONORS CHEMISTRY – 3501 Credit

A TI-84 Plus graphing calculator (Silver Edition) is required for this course.

Honors Chemistry acquaints the student with the basic concepts of chemistry as outlined in regular chemistry; however, it includes a more intensive treatment of subject matter with a particular emphasis on chemical mathematics. This course requires independent research.

Grades: 10, 11, 12

AP CHEMISTRY – 3541 Credit

AP Chemistry is designed to be the equivalent of the general chemistry course usually taken during the first year in college. For some students, this course enables them to undertake, in their first year, second-year work in the chemistry sequence at their institution or to register in courses in other fields where general chemistry is a prerequisite. For other students, the AP Chemistry course fulfills the laboratory science requirement and frees time for other courses. AP Chemistry will meet the objectives of a college general chemistry course. Students in this course will attain a depth of understanding of fundamentals and reasonable competence in dealing with chemical problems. The course will contribute to the development of the students' abilities to think clearly and to express their ideas, orally and in writing, with clarity and logic. This course differs from the usual first high school level chemistry course with respect to the kind of textbook used, the topics covered, the emphasis on chemical calculations and the mathematical formulation of principles, and the kind of laboratory work done by students. Other differences include the number of topics treated, the time spent on the course by students, and the nature and variety of experiments done in the laboratory. Topics covered include atomic theory and structure, chemical bonding, nuclear chemistry, gases, liquids, solids, solutions, reaction types, stoichiometry, equilibrium, kinetics and thermodynamics. The course also requires students to participate in laboratory experiments, which may involve extra time before and after school. Students should plan on a summer assignment prior to the start of the course in the fall. All students enrolled in this class are required to take the AP Chemistry exam.

Grades: 11, 12

Requirements: Students must have received at least an A- in Honors Chemistry I. Students should have received an A- in Honors Algebra II or an equivalent math course. **Departmental approval is required for enrollment in this class.**

PHYSICS - 3411 Credit

A TI-84 Plus graphing calculator (Silver Edition) is required for this course.

This course is open to juniors and seniors who have a good mathematical background. It is designed to familiarize students with concepts of physics necessary for following science courses in college. Course content includes: force, motion, work, energy, waves, optics, electricity, magnetism and nuclear energy. Problem solving is an important part of this course. Students taking this course are required to prepare independent projects.

Grade: 12

Requirements: Students enrolling in this course should have a minimum B average in Algebra 2.

HONORS PHYSICS – 3401 Credit

A TI-84 Plus graphing calculator (Silver Edition) is required for this course.

The course includes the topics mentioned in Physics 341, but with a more in-depth, mathematical approach. Students are expected to work independently on assigned readings and in the preparation of projects.

Grade 12

Requirements: Students must have demonstrated very strong mathematical abilities and have a minimum B average in Honors Algebra 2 or Pre-Calculus.

ENVIRONMENTAL SCIENCE – 3451 Credit

Environmental Science is an elective course that provides students a broad background in ecology, conservation of resources, biodiversity and pollution issues. This course also helps prepare students interested in pursuing a career in environmental science, wildlife conservation/management, or biology. In addition, it provides information regarding the wise use of resources in everyday life. Some of the topics studied are: energy flow through ecosystems, community structure, competition, predation, mutualism, ecological succession, population growth, climate and biomes. Issues such as global warming, stratospheric ozone depletion, and hazardous waste materials are addressed.

Students are required to do research projects and present their findings to the class.

Grades: 11, 12

Requirements: Students need to have completed Biology and Chemistry and should have attained a C average in each class. If these requirements are not met then departmental approval is needed.

ANATOMY & PHYSIOLOGY – 3431 Credit

This course is open to students who need to fulfill their 3-year science requirement and to students interested in learning about the human body as a whole, including structure and function at the molecular, cellular, tissue, organ, systemic and organismic levels. This course prepares students for a variety of pursuits in the health sciences and to take an active role in their own health and wellness.

Grades: 11, 12

Requirements: Students need to have completed Biology and Chemistry and should have attained a C+ average in each class. If these requirements are not met then departmental approval is needed.

HONORS ANATOMY & PHYSIOLOGY - 346

Honors Anatomy and Physiology is open to juniors and seniors who may be interested in pursuing a health-care related course of study in college. While it covers the same material described in standard Anatomy and Physiology, there is a more intensive pace with a focus on understanding structural functions by learning the mechanisms of action and control for each major system of the body. Independent reading and research are required in this course.

Grades: 11, 12

Physical Education

PHYSICAL EDUCATION - 956 (SOPH) 958 (FRESHMEN)¼ Credit

Physical Education is a course requirement for all Freshmen and Sophomores. The class will be structured as a fun, positive and safe environment for all students. Students will receive instruction and information in the area of skills and knowledge in a selection of activities such as Flag Football, Ultimate Frisbee, Polo, Paddle tennis, Volleyball, Basketball, Soccer, Floor Hockey, Badminton, Lacrosse, Stickball as well as assorted and structured recreational games. The Physical education class promotes a healthy environment with emphasis placed on good sportsmanship and fair play.

Grades: 9, 10

World Language Department

All students are required to take two years of a world language: French, Latin, or Spanish. Any level 1 course **MUST** be followed by the level 2 course.

SPANISH 1 – 410

1 Credit

Pronunciation, grammar, reading, and writing skills are introduced and developed. This course also includes an introduction to Hispanic cultures. This course is intended for students who have had little or no previous Spanish study.

Grades: 9, 10, 11

HONORS SPANISH 1 – 411

1 Credit

See description for Spanish 1. Instruction is at an accelerated pace with emphasis on oral proficiency. Readings in Spanish provide students cultural enrichment. It helps to develop a deeper awareness of Hispanic cultures.

Grades: 9, 10, 11

SPANISH 2 – 420

1 Credit

This course consists of a review of grammar skills, introduction of more sophisticated structures, and further development of reading, writing and speaking. It helps to develop a deeper awareness of Hispanic cultures.

Grades: 10, 11, 12

HONORS SPANISH 2 - 421

1 Credit

This course includes review of grammar skills and complex grammatical structures. Idiomatic expressions and vocabulary are introduced to the students. Reading, writing, and speaking Spanish are major goals. The students continue to study Hispanic culture. Instruction is at an accelerated pace with emphasis on oral proficiency.

Grades: 10, 11, 12

HONORS SPANISH 2A – 427**1 Credit**

This is an honors course for incoming freshman who have studied the equivalent of Spanish 1 in 7th and 8th grade. After a comprehensive review of Spanish 1, students begin the study of Spanish 2. See Honors Spanish 2 description.

Placement in this course will be determined by the results of a Spanish Placement Test given in the spring.

Grade: 9

SPANISH 3 - 430**1 Credit**

This course emphasizes the study and usage of verb tenses not covered in Levers 1 and 2. The grammar focus is on more sophisticated grammatical structures. In addition to grammar skills, the students are introduced, through readings, to more conversational Spanish and greater vocabulary content. The students also increase their knowledge of Hispanic culture.

Grades: 10, 11, 12

HONORS SPANISH 3 – 431**1 Credit**

See description for Spanish 3. Instruction is at an accelerated pace.

Grades: 10, 11, 12

SPANISH 4 – 440**1 Credit**

This course provides for a more expanded knowledge of Spanish grammar and emphasizes more advanced vocabulary, idiomatic expressions, conversation, and writing. Class work is conducted primarily in Spanish in order to provide an environment that reinforces language skills. Students continue to study Hispanic culture by various readings.

Grades: 11, 12

HONORS SPANISH 4 – 441**1 Credit**

See description for Spanish 4. In addition, students are required to read independently for comprehension and as a basis for compositions. Class discussions are conducted in Spanish, and students are required to give presentations in Spanish. Instruction is at an accelerated pace with emphasis on oral proficiency.

Grades: 11, 12

ADVANCED PLACEMENT SPANISH – 461 / HONORS SPANISH 5 – 460**1 Credit**

This course is designed to develop the ability to comprehend and speak formal and informal Spanish in various situations, to master advanced grammar, and to improve writing skills. Students read and analyze stories and articles written by a variety of Hispanic authors. Students taking this course for Advanced Placement credit are required to do additional preparation for the AP Exam, which they must take in the spring.

Grades: 11, 12

FRENCH 1 – 412**1 Credit**

Pronunciation, grammar, reading, speaking, and writing skills are introduced and developed. This course also includes an introduction to the culture of the French-speaking people. This course is intended for students who have had little or no previous French study.

Grades: 9, 10, 11

HONORS FRENCH 1 - 413**1 Credit**

See description for French 1. Instruction is at an accelerated pace with emphasis on oral proficiency. Enrichment is gained by cultural readings in French.

Grades: 9, 10, 11

FRENCH 2 – 422**1 Credit**

This course provides a comprehensive review of basic grammar and introduces more complicated grammatical structures and vocabulary. Development of writing skills and reading comprehension is emphasized at this level.

Grades: 10, 11, 12

HONORS FRENCH 2 – 423**1 Credit**

See description for French 2. Enrichment is added through cultural readings in French. Instruction is at an accelerated pace with emphasis on oral proficiency.

Grade 9 placement will be determined by the results of the French Placement Test given in the spring.

Grades: 9, 10, 11, 12

FRENCH 3 – 432**1 Credit**

This course consists of more challenging grammatical structures, vocabulary, and reading comprehension topics. Conversation and writing skills are further developed through readings in French civilization.

Grades: 10, 11, 12

HONORS FRENCH 3 – 433**1 Credit**

See description for French 3. In addition students are required to read independently for comprehension and vocabulary building. Class discussions are conducted in French and instruction is at an accelerated pace.

Grades: 10, 11, 12

FRENCH 4 – 4421 Credit

A thorough review of essential grammar is presented. Advanced idiomatic vocabulary is introduced in order to facilitate discussion of reading done at this level. Students read excerpts from French newspapers, magazines, and short stories in their text. Writing skills are further developed through composition work.

Grades: 11, 12

HONORS FRENCH 4 – 4431 Credit

See description for French 4. In addition, students read independently and prepare an “explication de text”. Discussion of reading material is done in French.

Grades: 11, 12

ADVANCED PLACEMENT FRENCH - 444/HONORS FRENCH 5 - 4501 Credit

The objective of this course is to develop the ability to understand spoken French in various contexts, to master French vocabulary sufficient for reading newspapers, magazine articles and literary texts, to cultivate the skills necessary to clearly express oneself both orally and in writing, and to use advanced, idiomatic French. Students who take this course for AP credit must do additional work to prepare for the AP Exam which they are required to take in the spring.

Grade: 12

HONORS LATIN 1 – 4141 Credit

The purpose of this course is to introduce the student to the foundations of the Latin language: its grammar, pronunciation, and syntax. The introduction to passages from Latin authors and from mythology is also included. In addition, supplementary work in Latin culture and English derivatives, and participation in national and state competitions are parts of the course.

Grades: 9, 10, 11

HONORS LATIN 2 – 4241 Credit

The purpose of this course is to expand the student’s knowledge of the Latin language by a review of the vocabulary, grammar, and syntax of Honors Latin 1, and to expose them to more complex constructions such as verbals, periphrastic, and subjunctive mood. In addition, a proficiency in reading Latin is sought through Caesar’s *Commentaries*, the myths of Hercules, and the story of Jason and the Argonauts. Part of this course is a brief overview of Roman culture, its history, and its art. Students are also expected to enter various academic competitions on both national and state levels.

Grades: 10, 11, 12

HONORS LATIN 3 - 4521 credit

This course will focus upon the readings of Latin authors such as Cicero, Livy, Ovid, and Catullus in exploring the cultural, social, and historical world of the first century B.C. Advanced concepts of grammar, metrics, and rhetoric will also be included. Students will compete in national academic tests and competitions.

Grades: 11, 12

ADVANCED PLACEMENT LATIN 4 - 4541 Credit

AP Latin focuses on selected passages from Virgil’s *Aeneid*, from Catullus’ *Poems* and from other Latin authors. In addition, students undergo intensive work in advanced principles of Latin grammar. Students who take the course must also take the AP Exam in the spring.

Grade: 12

Theology Department

All students are required to take four years of Theology, which includes a one semester elective their senior year. Active participation is expected in all classes.

CHRISTIAN SERVICE REQUIREMENT

Christian Service is an integral part of the educational process. To this end, Arlington Catholic High School has a Christian Service requirement. All students are required to complete 60 hours of service before graduation. Twenty hours of service must be completed during each of the Freshman and Sophomore years, and 10 hours of service during each of the Junior and Senior years. The Campus Ministry office provides possible service placement opportunities. Other individual placement opportunities may be discussed with the Director of Campus Ministry. The students are encouraged to link academic learning with the kind of direct community service that develops and demonstrates deepened spirituality through self-giving and social responsibility, which enrich both the students' lives and the lives of those being served.

THEOLOGY 1 – 510

1 Credit

FUNDAMENTALS OF CATHOLIC BELIEF

This course introduces the four-year Theology curriculum. Its purpose is to help the students examine and deepen their own understanding of the fundamental beliefs of the Catholic faith. Students explore the nature of God and faith and the meaning of God's call to live in unconditional love. They are encouraged to apply these concepts to their own lives. In addition, such basic doctrines as the Trinity, the Incarnation, and the Paschal Mystery are studied.

INTRODUCTION TO THE HEBREW SCRIPTURES

This course is designed as an introduction to the Bible as well as a study of the Hebrew Scriptures. It offers students an opportunity to read the Bible and learn how to understand and apply its truths to their own lives. Through a study of basic biblical themes, the course develops an understanding of how God has worked in human history and still works in our world today.

Grade: 9

THEOLOGY 2 – 5201 Credit**INTRODUCTION TO THE CHRISTIAN SCRIPTURES**

This course introduces students to the person and message of Jesus and continues the study of the Bible begun in the preceding course. It shows students how to understand the message of the Christian Scriptures by examining the historical and cultural background of both Jesus' time and that of the early Christian evangelists and by studying the Gospels as a unique literary form. Students are given opportunities to apply Jesus' gospel message to their own lives.

CHRISTIAN MORALITY

This course presents a Catholic understanding of the nature and meaning of morality and the process of moral decision-making. It explores the Christian understanding that being moral means being fully human, with Jesus as our model of a morally good and fully human person. Students are given the opportunity to study a decision-making process based on Christian values and principles and to apply that process to various moral issues.

Grade: 10

HONORS THEOLOGY 2 – 5211 Credit

This course covers essentially the same issues, concepts, and questions as the standard course. However, it offers students the opportunity to explore these questions and concerns in more depth. Therefore, this course requires students to do additional reading, write quality essays, and engage in active, meaningful discussions.

Additional Requirements: Students must have a minimum grade of B+ in freshman English, or a minimum grade of B- in freshman Honors English.

Grade: 10

THEOLOGY 3 – 530

1 Credit

SOCIAL JUSTICE

This course is designed to enable students to make mature, Christian decisions about world issues. Specifically, the course addresses the national and global problems of discrimination such as racism and sexism, and poverty and political oppression. The responsibility of the Church to address these issues is examined through the study of pertinent Church documents, encyclicals and pastoral letters.

SACRAMENTS AND THE CHURCH

This course examines sacramental awareness as a natural, human activity. It explores sacredness and sacramentality from a Catholic perspective. The concepts of symbol and ritual are considered in an historical context so that students can appreciate the living traditions of the Church from post Resurrection times to the present.

Grade: 11

HONORS THEOLOGY 3 – 531

1 Credit

This course covers essentially the same issues, concepts, and questions as the standard course. However, it offers students the opportunity to explore these questions and concerns in more depth. Therefore, this course requires students to do additional reading, write quality essays, and engage in active, meaningful discussions.

Additional Requirements: Students must have a minimum grade of B+ in sophomore English, or a minimum grade of B- in sophomore Honors English.

Grade: 11

THEOLOGY 4**Senior Electives:****RELIGIONS OF THE WORLD – 541**

1 Credit

The study of the world religions examines the development of religious awareness among human beings and its various expressions in the world today. Specifically, the students study primitive religion, Judaism, Christianity, Islam, Hinduism, Buddhism and the religions of Japan and China, as well as related topics such as atheism, cults, and mythology. The course is designed to give the students a better understanding of religious thought in order that they may strengthen their personal faith.

THE CHALLENGE OF PEACE, NONVIOLENCE AND CONFLICT RESOLUTION - 542

1 Credit

This course examines non-violent methods of conflict resolution. It includes case studies, films, readings, current events, and class discussions. The students study the non-violent theories and methods taught by Jesus, Gandhi, Martin Luther King, and others. They also explore the many successful non-violent revolutions that took place during the twentieth century.

VOICE AND VISION - 543

1 Credit

This elective combines the fields of theology and communications. Students will be taught formal speaking skills and group process techniques. In addition, students will explore biographical portraits of renowned Christian activists, peacemakers and theologians. Topics will include lying and deception, ethical issues, spirituality and leadership. Formal speeches are part of this course, but the core of the course revolves around ethical and theological topics. The textbook is a teacher-designed resource.

THE SEARCH FOR TRUTH: CHRISTIAN ETHICS FOR THE 21ST CENTURY- 544

1 Credit

This course focuses on contemporary Christian ethics and ethical decision making. The roles of conscience formation, personality development, religious values and social structures are considered in ethical decision-making. In addition, the questions of good versus evil, personal versus communal values, authority versus conscience, and religion versus society are addressed. Case studies are drawn from the fields of political, business, environmental, medical, and social ethics.

CHRISTIAN LIFESTYLES – Required semester course in all senior electives

Senior year presents students with a variety of decision and concerns for their future. In this second semester course for all senior electives, students assess their own moral values as they relate to the Church's views on the issues of personal identity and autonomy, love and sexuality, and the vocational choices of marriage, single life and ministry.

Fine Arts Department

FINE ARTS DEPARTMENT

ART 1 - 751

1 Credit

This introductory course focuses on the basic skills and vocabulary of art. Techniques covered include: color theory, pencil-shading techniques, perspective, figurative gesture drawing, collage, introduction to sculpture and basic design layout. Home assignments include short readings and occasional sketchbook/planning drawings. This course is recommended for students who have not had extensive previous art experience.

Grades: 9, 10, 11, 12

DESIGN – 752

1 Credit

This course focuses on different areas of design. Good craftsmanship is emphasized. Projects include: calligraphy, interior design, type exploration, corporate identities, page layout, advertising, and printmaking. Home assignments include the maintenance of a journal of ideas throughout the year.

Requirements: Previous average grade of “A” in primary school art classes and/or completion of Art 1.

Grades: 10, 11, 12

PAINTING AND DRAWING – 753

1 Credit

A variety of media is utilized in this course including: acrylic paint, watercolor, gouache, ink, graphite, pastel, colored pencil, pen and ink. Still life, observational, imaginative and abstract drawing and painting are explored. Home assignments include sketchbook drawings throughout the year.

Requirements: Previous average grade of “A” in primary school art classes and/or completion of Art 1.

Grade: 10, 11, 12

SCULPTURE - 754**1 Credit**

Three dimensional art making is studied in this course. Projects include: wire sculpture, jewelry making, papermaking, figurative forms, ceramic vessels, and relief sculpture. Home assignments include the maintenance of a sketchbook/idea journal throughout the year.

Requirements: Previous average grade of “A” in primary school art classes and/or completion of Art 1.

Grades: 10, 11, 12

VISUAL ARTS STUDIO – 756**1 Credit**

This course is for advanced students who are thinking of applying to a college art program and pursuing an art-related career. Ability to work independently is required. Portfolio preparation and presentation are the main focus. Home assignments include drawings and conceptual planning in journal form throughout the year.

Requirements: Permission of Instructor.

Grade: 12

Fine Arts Extra-Curricular Programs

BAND PROGRAM**August through June**

Arlington Catholic offers a Concert Band that meets from late August through early June and Ensembles that have a varied meeting schedule throughout the course of the year. Our Ensembles and award winning Concert Band are offered to students who have a minimum of one year of lessons on their chosen instrument. New students must schedule an audition with the Band Director.

Participation in our Band Program provides the opportunity for students to develop ensemble skills and improve their musicianship skills. A variety of Jazz, Rock, Pop, Broadway, and Classical music is explored through performance. Students will develop confidence, poise, self-discipline, leadership, and teamwork skills. Students are advised to take private lessons to continue developing their technique and maintain their skills to contribute to the ensemble.

Concert Band Membership

Two weekly rehearsals are held and performances include the annual Christmas Concert, Spring Band Concert, Arlington Catholic Arts Festival, Pep Band, Graduation, Band Festivals, Drama Performances, and Special Occasions. Concert Band membership includes participation in all Ensembles as well.

Ensembles and Pep Band

One weekly rehearsal is held and performance dates will vary depending on the group. Some ensembles will need to meet twice a week prior to performance. Pep Band members will meet

with Concert Band members. All groups will participate in performance. Students may choose to participate in one or more ensemble.

Drum Line is for the percussionist who wishes to become part of a team of drummers demonstrating technique and precision. Materials and routines designed to develop strength, control, and endurance will be explored.

String Ensemble will provide the student the opportunity to perform music with a variety of musicians in both large and small groups.

Pep Band will perform in the bleachers at home games, the school pep rally, and the Thanksgiving game. Rehearsals begin in August.

Four Reasons to Join Pep Band:

1. It's fun and a great way to meet new people and make new friends.
2. It's a great time to make some crazy loud music and people don't mind if you yell and scream...a lot!
3. You get to wear an AC Band sweatshirt.
4. Free admission to the games.

Performances and Schedules

Band members will serve and represent the school in concert and in a variety of performances. Concert attire will be required at all performances. Band Sweatshirts will be required for Pep Band members.

Concert Band Rehearsals will be held on Wednesdays from 1:45 p.m. to 3:00 p.m. in the music room at Arlington Catholic and Mondays from 6:00 p.m. to 7:30 p.m. at St. Agnes School across the street. Attendance at both rehearsals is preferred. *Mandatory Monday rehearsals are scheduled for three consecutive weeks prior to performances.*

Ensemble Rehearsals to be scheduled based on enrollment.

Instruments

Students who play the following instruments are encouraged to participate:

Concert Band: flute, clarinet, bass clarinet, oboe, trumpet, trombone, tuba, alto saxophone, tenor saxophone, baritone saxophone, electric guitar, bass guitar, drums, percussion, and piano.

Ensembles: (includes all concert band instruments) violin, viola, cello, bass, electric guitar, bass guitar, drums, percussion, and piano.

Instruments may be stored in lockers or kept in the music room.

Small Group lessons, Private Lessons, and Instrument Rental are available.

Please contact the Band Director for further information.

BAND HAND BOOK WILL BE GIVEN AT FIRST MEETING

REHEARSALS BEGIN THIRD FULL WEEK OF AUGUST FOR PEP BAND

Concert Band Membership Fee:	\$400 (includes all Ensembles and Pep Band) (Fees for Festivals and Sweatshirt not included)
Pep Band Fee:	\$100 (plus additional fee \$35 Band Sweatshirt)
Ensemble Membership Fees:	\$200 String Ensemble \$200 Drum Line Membership to additional Ensemble \$100

To Register: Please contact Charlotte Stone, the Arlington Catholic Band Director at cstone@achs.com or call (339) 221-2332. Don't miss a beat! Don't delay! Call right away

CONCERT CHORALE

In this after school program, students with an interest and with the appropriate level of ability engage in an intense choral experience. Challenged by musical selections that require attention to harmony, rhythm, and diction, students perform at the Christmas Concert, Spring Concert, selected liturgies throughout the year, and graduation.

DRAMA

The ACHS Drama program is a creative outlet which seeks to foster students' knowledge and appreciation of the dramatic arts. The stage is a place where students can *imagine, create, and discover* while having fun and forging important friendships. In addition to providing opportunities to act, sing, dance and make music, the program offers students the chance to work as technicians and artists in other facets of production such as lighting, sound, crew, make-up, props and costumes. Participants are encouraged to make the shows their own: they often take on the roles of playwrights, stage managers, student directors, musical directors and choreographers. The program usually produces three performances: a dinner theatre or student-scripted show in the fall, a one act play in the winter, and a musical in the spring. Part of the production's success depends on creating a team in which all players value individual talents. Drama Club is open to everyone!