

Program of Studies



2018-2019
School Year

INTRODUCTION

This Program of Studies has been drawn up in order to guide the students of Bishop Carroll Catholic High School toward the orderly development of all their powers and capabilities- spiritual, moral, mental, physical, social, and emotional.

Parents, as well as the students, are encouraged to study the contents of this Program of Studies in order to assist their sons and daughters in the selection of an appropriate course of study.

The selection of a student's program is an important matter which should be worked out carefully by the student and his or her parents with the help of the school counselor and teachers. The selection should be based on the student's abilities, interests, aptitudes, willingness to work, and future vocational and educational plans.

Parents should feel free to contact the counselor at any time during the school day to discuss a student's program and academic progress. The number is 472-7500 Ext 122.

Parents and students are reminded that recommendation of a student for post-secondary education or job placement upon graduation from Bishop Carroll depends upon the following criteria:

- (a) Quality of scholastic work in high school as evidenced by school grades and teacher's evaluations.
- (b) Suitability of high school subjects successfully passed for the type of post-secondary education or employment the graduate wishes to follow.
- (c) Intellectual, emotional, and social maturity of the graduate as evidenced by the high school record and faculty evaluation.

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REQUIREMENTS FOR GRADUATION FROM BISHOP CARROLL CATHOLIC HIGH SCHOOL

Graduation from Bishop Carroll Catholic High School requires the satisfactory completion of no less than twenty-eight (28) units of study in acceptable sequence. The successful completion of the prescribed courses in religious education is required of every student.

College Preparatory Academic Program

Religion	4.0 credits
English	4.0 credits
Math	4.0 credits
Social Studies	3.0 credits
Science	4.0 credits
Foreign Language/ Language Arts	2.0 credits
Phys Ed/Health	1.5 credits
Accelerated Reader	1.0 credit
Music/Art	0.5 credit
Computer	0.5 credit
 Mandated courses	 24.5 credits
Elective courses	<u>3.5 credits</u>
	 28.0 total credits

Students in their 11th or 12th grade year may also enroll in the programs at Admiral Peary Vo-Tech. Please see the guidance counselor to explore these possibilities.

Weighted Average Chart

The rank in class is determined by a weighted grading system. Advanced -1.10, Honors -1.05, Academic -1.00. The actual numerical grade does not change, only the average changes.

COURSE DESCRIPTIONS

RELIGION

RELIGION 9

Academic / Full Year / 1 Credit

Semester 1-The Bible: The Living Word of God

This first semester leads the students toward a deeper understanding of the Bible and the history of our salvation printed within it. The students learn to navigate the Bible and learn why Salvation History is necessary. They learn about the covenants and people of the Old Testament and about Jesus as the fulfillment of Salvation History.

Semester 2-Jesus Christ God's Love Made Visible

This semester leads students to a deeper understanding of Divine Revelation, the Trinity and the Incarnation. Jesus' significant relationships, his teachings, his example, and salvation are also presented. It explores discipleship as a response to God's love.

RELIGION 9 BC - ESL

Academic / Full Year / 1 Credit

This full year class is an introduction to Roman Catholicism. It explores Salvation History from the story of Creation to the Resurrection of Jesus Christ. The students learn the important aspects of the Catholic faith including: the Liturgy, Sacraments, Prayer, Church History, Morality and Catholic Social Teaching Principles. In this overview our main focus is understanding the reality of Jesus as historical as well as His real presence in relationship with Christians today.

RELIGION 10

Academic / Full Year / 1 Credit

Semester 1- The Paschal Mystery

This course leads the students toward a deeper understanding of Jesus as our Redeemer. It follows God's plan of redemption through Scripture and Jesus' fulfillment of that plan in His life, death, and Resurrections. The students are then led in finding the redemptive elements of Jesus' life in the Mass and in the Christian life of prayer and holiness.

Semester 2- The Church

This half of the year leads the students toward a deeper understanding of the Church as Jesus' instrument of salvation and as the means of encountering Him. It explores the human and divine elements of the Church and follows the ongoing mission of the Holy Spirit through the Church.

RELIGION 11

Academic / Full Year / 1 Credit

Semester 1- The Sacraments

This course leads the students toward a deeper understanding of the liturgy and the sacraments, instituted by Christ and given to us through the Church. Throughout the course, the sacraments as graced encounters with the Risen Christ and a strengthening of our relationship with Him are emphasized. This in turns sends us to share the love of Christ.

Semester 2 – Morality

This course leads students toward a deeper understanding of God's Law revealed to us through reason and Revelation. The content of the course is informed by moral law in the Old Testament, by Christ's moral teaching in the Gospels, and by the moral teaching of the Church as applied to contemporary problems.

RELIGION 12*Academic / Full Year / 1 Credit***Semester 1 -Church History**

This course begins with a history of the Church from the time of Christ to the twenty-first century. It looks at the growth and development of the Church in the context of each age to understand the roots of the Church and how we come to the Church we have today. Students learn that despite its human flaws, the Church is always guided by the Holy Spirit and there are great Saints in every age who keep it on course and are living models of Jesus on earth.

Semester 2 – Catholic Social Teaching

The course then examines the foundations of Catholic Social Teaching and how it is rooted in Scripture and Tradition. Next, students explore the tremendous growth in this teaching over the last century as the Church has responded to rapid and far-reaching changes in society. Specific social issues are explored and students are called to reflect on Christ's call to live justly and confront sinful social structures.

ENGLISH**ENGLISH 9***Academic / Full Year / 1 Credit*

This course introduces the students to the genres of fiction (both short story and novel), poetry, drama, and non-fiction. In addition, there is a review of grammar, development of basic writing skills and vocabulary, and an introduction to the use of the library.

ENGLISH 10*Academic / Full Year / 1 Credit*

This course follows the development of American fiction, poetry, non-fiction, and drama. Grammar review is combined with vocabulary units, composition skills, and the style and writing of a research paper.

ENGLISH 11*Academic / Full Year / 1 Credit*

This is a full-year course which combines a survey of British literature. Grammar review is combined with vocabulary units, composition skills, and the style and writing of a research paper.

ENGLISH 12*Academic / Full Year / 1 Credit*

The course teaches development of universal themes in world literature; classic and modern. All forms of literary genre are explored. Grammar review is combined with vocabulary units, composition skills, and the style and writing of a research paper.

AP PLACEMENT LANGUAGE & COMPOSITION – 12*Advanced / Full Year / 1 Credit*

Prerequisite: Minimum 87% average in previous English courses, PSAT Critical Reading Score of 53 or better, Completion of summer reading

In this course, students study mostly nonfiction and apply advanced techniques to understand sophisticated layers throughout their readings and within all writing. A primary focus of the course is argumentation. Students learn models of rhetoric and study rhetorical devices to become stronger critical readers and consumers of all media. Readings range from articles of current events, essays, nonfiction novels, visual arguments, advertisements, etc. In the composition area of the course, students engage in rigorous preparation to enhance their writing skills. This preparation includes modeling of master writers, independent teacher/student writing workshops, independent and peer revisions and writers' workshops, and reflective feedback given by the teacher and student writers.

This writing takes form in multiple assignments such as: Narrative (college admissions essay), Persuasive (Article of the Month response, Analysis Essays from readings, and Timed Writings. Developing speaking skills is also an areas of focus for students. Informal discussion settings are paired with formal Socratic methods to both expose students to post-secondary discussion models but also to challenge students to develop stronger speaking and listening skills, as well as evidence-based contributions. This course will substantially prepare you for college, not just in Humanities courses but in any course that requires critical thinking, reading, writing, and/or discussions.

CREATIVE WRITING – 11, 12

Academic / 1 Semester / 1/2 Credit

This course is designed to introduce students to a variety of writing purposes including character sketches, fictional stories, writing from prompts, and writing with group collaborations. Students will move through the writing process, including brainstorming, writing drafts, and peer conferencing with a focus on writing for enjoyment. The majority of the work will be done in class to produce coherent and concise essays.

PUBLIC SPEAKING – 11, 12

Academic / 1 semester / 1/2 Credit

This course is designed to enable students to develop socially acceptable and socially effective communication skills. In addition, students will learn to speak coherently and relevantly in a number of public situations. Students will demonstrate learned skills by preparing and performing speeches for a variety of purposes including informative and persuasive. Students will develop the necessary skills by completing exercises in audience-centered speaking situations.

READING LAB – 9 10, 11, 12

Academic / Full Year / 3/5 Credit

This full year course is geared to help foster better reading habits for students, grades 9 to 12, whose reading achievement is not yet at level expectancy. Formal and informal reading diagnosis will be implemented individually. Students will be scheduled two times a week. Activities will be centered on areas of weaknesses in comprehension and vocabulary skills. There is also an attempt for the student to develop better work skills, study habits, and more accurate listening.

ENGLISH AS A SECOND LANGUAGE – 9, 10, 11, 12

Academic / Full Year / 1 credit

This course is designed for students whose primary home language is not English. The course is designed to teach English language learners social and academic language skills as well as the cultural aspects of the English language necessary to succeed in an academic environment and contribute to society. It involves teaching listening, speaking, reading and writing at appropriate developmental and proficiency levels with little or no use of the native language. Courses are correlated to the Pennsylvania Academic Standards for Reading, Writing, Listening and Speaking. Students are assessed with the W-APT and MODEL tests.

JOURNALISM/YEARBOOK – 11, 12

Academic / Full Year / 1 Credit

This course is designed to teach both journalistic writing and publishing skills. Students will produce weekly columns for the local newspapers called *Huskie Highlights* that will capture what is happening with the people and events of Huskie Hill. They will also report on current events that are of interest to the student body. Students will examine the power of the written word, the ethics, responsibilities, and the freedoms of journalists. In addition, they will apply those skills to learning the basics of yearbook journalism to meet deadlines imposed by the instructor and complete the school yearbook.

MATHEMATICS

Sequencing of courses:

Track I

9 – Hon Algebra 2
10 – Hon Geometry
11 – Adv. Trig/Pre-Calculus (11)
12 – AP Calculus or Calculus

Track II

Algebra 1
Geometry
Algebra 2
Adv. Trig/Pre-Calculus
or Trig
Integrated Math 12

Track III

Algebra 1 Part 1
Algebra 1 Part 2
Geometry
Algebra 2 or
Integrated Math 12

ALGEBRA I, PART 1 – 9

Academic / Full Year / 1 Credit

This full-year course is designed to cover the half of the material covered in an average Algebra I class at a pace easily understood. Topics included are the number line, operations with integers and rational numbers, exponents, order of operations, solving linear equations and inequalities, problem solving and an introduction to graphing in the rectangular coordinate system.

ALGEBRA I, PART 2 – 10

Academic / Full Year / 1 Credit

This course is the follow-up to the Algebra 1, Part 1. After completion of the course all topics generally taught in Algebra I will have been covered. Topics include solving systems of equations, operations with polynomials, factoring, operations with algebraic fractions, integer exponents and irrational numbers.

ALGEBRA I - 9

Academic / Full Year / 1 Credit

This full-year course is a formal course in beginning algebra. It emphasizes structure as well as method. Topics included are operations with real numbers, exponents, order of operations, solving linear equations and inequalities, problem solving, operations with polynomials, factoring, operations with algebraic fractions, an introduction to quadratic equations, and an introduction to graphing in the rectangular coordinate system, and 2-variable equations.

HONORS ALGEBRA 2 - 9

Honors / Full Year / 1 Credit

A full-year course on fundamental algebra, including all the topics in the regular Algebra I, with a stronger emphasis on word problems and applications, plus second year algebra topics such as fractional equations, negative exponents, imaginary numbers, solutions to quadratic equations, radicals, and matrices.

APPLIED GEOMETRY/GENERAL CONCEPTS – 11

Academic / Full Year / 1 Credit

This course is a simple yet thorough introduction to the fundamentals of Euclidean Geometry. This course is a slower-paced, hands on practical version of the mainstream sophomore Geometry course with less emphasis on deductive proof.

GEOMETRY - 10

Academic / Full Year / 1 Credit

A beginning looks at the structure of a mathematical system with definitions, axioms and theorems with deductive reasoning and proof throughout. Triangles, squares and other geometric figures are studied based upon the Geometry of Euclid with applications to the physical world, including the study of 3-D polyhedrons.

HONORS GEOMETRY - 10*Honors / Full Year / 1 Credit***Prerequisite: Honors Algebra 2**

The first semester of this course covers Algebra II topics such as inverse functions, logarithms, and analytic geometry work with parabolas, circles, ellipses, hyperbolas. The second semester is a faster-paced version of the Geometry taken by most sophomores. (see Geometry – 10).

ALGEBRA II - 11 & 12*Academic / Full Year / 1 Credit***Prerequisite: Geometry**

A continuation of first year algebra starting with a review of Algebra I material. Includes more problems with fractions and word problems. New material includes square and cube roots, imaginary numbers, quadratic equations, fractional and negative exponents.

ADV TRIG/PRE-CALCULUS (11)*Advanced / Full Year / 1 Credit***Prerequisite: Honors Geometry**

A college preparatory course based upon six special functions and their properties. Includes work with identities, trigonometric equations, radian measure, polar coordinates, double and half-angle formulas, solution of triangles, graphs of the trigonometric functions. Applications to science and engineering are covered throughout the year. The latter part of the course contains more advanced work with functions, exponential and logarithmic functions, probability, sequence and series, matrices. For a fee, 3 college credits may be earned in Math 150 from Carlow University or Mount Aloysius College upon completion of the course with a C or above average.

ADV TRIG/PRE-CALCULUS (12)*Advanced / Full Year / 1 Credit***Prerequisite: Algebra II (85% or higher)**

A college preparatory course based upon six special functions and their properties. Includes work with identities, trigonometric equations, radian measure, polar coordinates, double and half-angle formulas, solution of triangles, graphs of the trigonometric functions. Applications to science and engineering throughout. The latter part of the course contains more advanced work with functions, exponential and logarithmic functions. For a fee, 3 college credits may be earned from Carlow University or Mount Aloysius College upon completion of the course with a C or above average.

AP CALCULUS AB- 12*Advanced / Full Year / 1 Credit***Prerequisite: Adv Trig/Pre-Calc**

This course will be a full-year course in Calculus. The topics include: limits and their properties, differentiation, The Chain Rule, implicit differentiation, and integration. The Fundamental Theorem of Calculus, applications of differentiation, and integration are used throughout the course, as well as graphic calculators. Students must have their own calculator. The student can receive 3 credits from Carlow University or Mount Aloysius College for this course with a C average.

CALCULUS I - 12*Advanced / Full Year / 1 Credit***Prerequisite: Adv Trig/Pre-Calc**

This course will be a full-year course in Calculus at a slower pace than AP Calculus. The topics include: limits and their properties, differentiation, The Chain Rule, implicit differentiation, and integration. The Fundamental Theorem of Calculus, applications of differentiation, and integration are used throughout the course, as well as graphic calculators. Students must have their own calculator. The student can receive 3 credits for Carlow University or Mount Aloysius College for this course with a C average.

CALCULUS II - 12*Advanced / Full Year / 1 Credit***Prerequisite: Calculus I**

This course will be a full-year course in Calculus II. The course will review all topics required for the students taking the AP Calculus AB and include new topics needed for the AP Calculus BC test. The main topics include limits, derivatives, integrals, sequences, series and polar coordinates. A graphic calculator is required.

Trigonometry*Academic / Full Year / 1 Credit***Prerequisite: 75% or higher in Algebra II**

A college preparatory course based upon six special functions and their properties. Includes work with identities, trigonometric equations, radian measure, polar coordinates, double and half-angle formulas, solution of triangles, graphs of the trigonometric functions. Applications to science and engineering throughout

INTEGRATED MATH*Academic / Full Year / 1 Credit*

This is a full-year course on the fundamentals of mathematics. It shows a mathematical explanation for real-world examples. Some topics which are included, but not limited to order of operations, percentages, consumption problems, logic, inflation and depreciation, taxation, borrowing and saving, patterns, likelihood, and fitness and sports.

STATISTICS 101*Academic / Full Year / 1 Credit***Prerequisite: 80% or higher in Algebra II**

Methods used in the collection, presentation, analysis and interpretation of data, including experimental design sampling theory, estimation theory, hypothesis testing, regression, correlation, analysis of variance and nonparametric techniques. The course is designed as an alternative to the traditional mathematics sequence leading to Calculus. Computer analysis is also required. This course is part of the Professor in Residence Program with Saint Francis University and is offered as a 3-college credit course.

COMPUTERS

COMPUTER APPLICATIONS I – 10*Academic / 1 semester / 1/2 Credit*

This course covers the basics of Word, Excel, PowerPoint, Access, and FrontPage. In addition, students will be introduced to a programming language. The course focuses on daily use of the computer and is thus “hands on.” The history of computers and number systems, such as binary, will also be covered.

COMPUTER APPLICATIONS II – 10, 11,12*Academic / 1 semester / 1/2 Credit***Prerequisite: Computer Applications I**

This course covers advanced topics in Excel and Access. In addition, students will be introduced to the Visual BASIC Applications (VBA), which is used in advanced work in both Excel and Access. The course focuses on daily use of the computer and is thus “hands on”.

COMPUTER PROGRAMMING 1*Academic / 2 semesters / 1 Credit***Prerequisite: Students must be taking or have completed Algebra 2.**

This course will use the C++ programming language to instruct the techniques of programming. As part of the course, basic programming techniques will be introduced and implemented through introduction to creating classes. Emphasis will be placed upon designing a computer program before trying to

create the program. Additionally, emphasis will be placed upon properly testing a program to assure it works correctly under different situations. Java graphics will also be introduced throughout the course.

AP COMPUTER SCIENCE A

Academic / 2 semesters / 1 Credit

Prerequisite: Students must have completed Algebra 2 and be enrolled in a higher-level math course. Computer Programming 1 is recommended.

This course will use the Java programming language to instruct the techniques of programming. As part of the course, basic programming techniques will be introduced and implemented using the class construct. Emphasis will be placed upon designing a computer program before trying to create the program. Additional emphasis will be placed upon properly testing a program to assure it works correctly under different situations. This is an advanced course where the student should be well prepared in mathematics. For a fee, three college credits can be earned through Saint Francis University.

COMPUTER SEMINAR I

Academic / 1 semester / 1/2 Credit

Prerequisite: Students must have completed AP Computer Science A

The student is expected to work independently on different areas of interest. The topic(s) must be approved by the instructor prior to starting work on them.

COMPUTER SEMINAR II

Academic / 1 semester / 1/2 Credit

Prerequisite: Students must have completed AP Computer Science A

The student is expected to work independently on different areas of interest and in a more advanced format than in Computer Seminar I. The topic(s) must be approved by the instructor prior to starting work on the project(s).

HISTORY

BASIC GEOGRAPHY/CIVICS – 9

Academic / Full Year / 1/2 Credit each

This course brings out the interrelationship between man and his environment. It also examines the nature and distribution of the environment, the landscape, landform, climate, animals, soil and vegetation. Also, a basic understanding of maps, the globe and how to use them are covered. Each continent is studied including the people and their cultures. Current Event topics are discussed throughout the course. The study of the general principles of the American system of constitutional government; special emphasis is placed upon the organization and functions of the national government; legislate, executive, and judicial. The rights and duties of citizenship, the electorate, political parties and civil rights in America.

WORLD HISTORY – 10

Academic / Full Year / 1 Credit

A survey of social, cultural, and political developments, including the chronology and significance of major events and movements from pre-history and man's emergence through the two World Wars. A fundamental theme will be the historical developments underlying present connections and similarities among the world's peoples, and the major differences dividing them.

U.S. HISTORY – 11

Academic / Full Year / 1 Credit

The course begins to prepare students for post-secondary studies in the Social Studies field. The students are presented with a general survey of the United States from the early settlement period through the beginning of the 20th Century and includes Colonial America, the American Revolution, the rise of political parties, early American ideological and political formation, westward expansion, Jacksonian Democracy, Manifest Destiny, Slavery, civil unrest, Civil War, Reconstruction, the Gilded

Age, Immigration, America's growth as a world power, the Progressive Era and American involvement in World War I. Current events, both domestic and international, are emphasized, as are the knowledge and understanding of geography, politics, economics and Pennsylvania's role in American history.

AP U.S. GOVERNMENT & POLITICS – 12

Advanced / Full Year / 1 Credit

Prerequisite: 85% average in U.S. History and approval of the instructor.

History Objective:

This course is an investigative and evaluative look at the major events and trends that have shaped the United States of America in the 20th century and beyond, with special focus on the social, political and economic aspects. Areas of study include the Depression, the New Deal, World War II, the Post War World, the Cold War, Civil Rights, the Vietnam Era, the Reagan era, the technology boom and bust and modern terrorism. Current events, politics, economics and Pennsylvania involvement are also included in the course of studies. This is also a college in high school course and for a fee; students may earn transferable college credits from Mount Aloysius College.

Politics Objective:

To engage the students in an active study, evaluation and participation of the American political system from the revolutionary times to the present with an emphasis on religion and society's impact. Students will discover how Christianity helped shape this nation, sustained it through difficult times and strives today to remain an active entity in American life. Areas of study will include elections, documents, Supreme Court cases, social and economic programs, wars and issues.

ECONOMICS – 11, 12

Academic / One Semester / 1/2 Credit

This course introduces students to basic economic concepts, microeconomics, the branch of economic theory that deals with behavior and decision making by small units such as individuals and firms, and macroeconomics, the part of economic theory dealing with the economy as a whole and decision making by large units such as governments and unions. In addition to the daily class work, the course includes a semester long business simulation model. Students also read "The World Is Flat," which describes modern economic practices.

SOCIOLOGY – 11, 12

Academic / 1 Semester / 1/2 Credit

Students will be capable of perceiving the basic social principles which underpin a society and of applying these principles to various aspects of our culture. Basic concepts such as status, role, socialization, deviance and others will be explored separately and form the basis of classroom instruction. Other cultures will also be examined, giving the students the opportunity to compare the aspects of foreign societies with those of our own. The societal effects of scientific technology will be a showcased area of study. Human cloning, in vitro fertilization, gender selection and other procedures will be evaluated as to their potential societal impact. Students will read the science fiction novel, A Brave New World and compare author Aldous Huxley's hypothetical society to our own.

PSYCHOLOGY – 11, 12

Academic / 1 Semester / 1/2 Credit

The psychology course is designed to be an introduction into the science of psychology. The course content will include the general academic overview of psychology, including its vocabulary, research methods and important individuals in the area of psychology. It will also present the general methods of scientific investigation as they are applied to human behavior. The course content will give students the opportunity to examine and reflect upon their beliefs, attitudes and feelings about themselves and their ideas of what people are like and why they behave as they do. Also included are topics such as: personality, intellectual abilities and adjustment, learning skills, perception, emotions, motivation, personality disorders, thinking and biological influences on behavior.

POP CULTURE -11,12*Academic / 1 Semester / 1/2 Credit*

The course introduces students to the various areas of popular culture, including but not limited to various forms of media, style, customs, cultures, interactions, and popular fads. Many aspects of the course are looked at through a religious, Catholic point of view. Students participate in a variety of activities and coursework in addition to major projects. Supplemental materials, including novels and visual aids, are used daily.

SCIENCE**MODERN BIOLOGY – 9***Academic / Full Year / 1.2 Credits*

This is an inquiry-oriented pre-college biology course. Students should have comprehensive reading ability and be prepared to do outside assignments. Lab work is correlated with the material covered in class during a special double lab period.

ADV. HUMAN ANATOMY AND PHYSIOLOGY – 11, 12*Advanced / Full Year / 1 Credit***Prerequisite: 80% average in Modern Biology**

This is a college level course for students who wish to major in biology, pre-med, nursing, or paramedical technology. Detailed explanation of the human body structure and functions are given. There is no scheduled lab period but lab work is performed during regular class periods. For a fee, four college credits in Basic Anatomy & Physiology may be earned from Mount Aloysius College upon completion of the course.

AP BIOLOGY/LAB – 12*Advanced / Full Year / 1.2 Credits***Prerequisite: 85% average in Modern Biology & 75% average in Modern Chemistry or instructor permission**

This is a second-year biology course designed for students who wish to pursue college level topics of biology while still in secondary school. Emphasis is placed on molecular and cellular aspects of living things, genetics viruses and evolution. The class meets for 4 lectures and 1 double lab period weekly. For a fee, four college credits in General Biology may be earned from Mount Aloysius College upon completion of the course.

ECOLOGY – 11, 12*Academic / 1 Semester / 1/2 Credit***Prerequisite: Successful completion of Modern Biology**

This is a basic ecology course designed to help the student understand the interactions of living organisms with one another and the physical world, and the effects of human activities on the environment. There is no scheduled lab period but lab work is performed during the regular class period using text activities.

ZOOLOGY – 11, 12*Academic / 1 semester / 1/2 Credit***Prerequisite: Successful completion of Modern Biology and a willingness to dissect animals.**

The major objective of the course is to examine the concepts and principles of zoology that provide a basis for understanding the nature, diversity, structure and functioning of animals. There is no scheduled lab period but lab work is performed during the regular class period.

APPLIED CHEMISTRY – 11*Academic / Full Year / 1 Credit*

This is a basic chemistry course which stresses chemistry fundamentals with a non-mathematical approach and with emphasis on applications to everyday life. Demonstrations and experiments are incorporated to supplement concepts taught in class.

MODERN CHEMISTRY – 11*Academic / Full Year / 1.2 Credits*

This is a qualitative and quantitative approach to chemistry. Emphasis is on the periodic table, problem solving and laboratory skills. The course includes basic factual material and principles of the following topics: measurement, matter, solutions, reactions, stoichiometry, energy changes, equilibrium, and kinetics.

ADVANCED CHEMISTRY – 12*Honors / Full Year / 1.2 Credits*

Prerequisite: Must have: 90% or above in Modern Chemistry, 85% or above in Trig/Pre-Calc, Approval of Chemistry teacher.

This course will develop in greater depth some of the topics in Modern Chemistry. Additional topics will be taught including stoichiometry, aqueous chemistry, theories of acids and bases, reaction energy and kinetics, chemical equilibrium, oxidation and reduction, electrochemistry and an introduction to organic chemistry. This course is intended for strongly motivated students planning to major in chemistry, pre-med, pharmacy, engineering and related fields. For a fee, students can earn four college credits through Mount Aloysius or St. Francis University.

ORGANIC CHEMISTRY – 11,12*Academic / Full Year / 1 Credit*

This course is a slow-paced investigation of Organic Chemistry. This course will explore covered in a College Organic Chemistry course. It will cover the depth of material at least equal to the level found in a college organic chemistry class. Emphasis will be placed on reaction mechanisms, reaction intermediates and transitional states of species found in organic reactions. Students will be able to identify organic compounds by their absolute Configuration and predict products in relationship to their structure. This course is intended for strongly motivated students planning to major in the pre-medical programs at the college level.

MODERN PHYSICS – 11,12*Academic / Full Year / 1 credit*

This course focuses on the principles and applications of basic physics such as mechanics, energy, and waves. Subtopics of mechanics include motion, force and displacement in one and two dimensions, gravitation, rotational motion, and momentum. Relationships between work and energy are covered as well as numerous types of energy and its conservation. Types of waves are also studied, such as sound and light waves. This course is designed to educate students in basic physics principles as well as how to apply these concepts to real situations to solve problems.

ADVANCED PHYSICS – 11, 12*Academic / Full Year / 1 Credit*

The student is given a general over view of Newtonian Physics. Topics range from scientific method, measurement, Newton's laws of motion, to light and an introduction to modern physics. The physics curriculum should enable students to develop positive attitudes towards science. The physics curriculum should develop awareness and understanding, allowing students to apply and evaluate key concepts. The physics curriculum should provide students with opportunities to understand important interrelationships among science, technology, society, and the environment. For a fee, students can earn three college credits through Saint Francis University.

MEDICAL TERMINOLOGY 11,12*Academic / 1 Semester / 1/2 Credit*

The course is a study of the professional language of medicine, including description, interpretation, building, and spelling medical terms that relate to human anatomy and physiology, pathophysiology, diagnostic testing and medical procedures.

LANGUAGE

LATIN 1

Academic / Full Year / 1 Credit

Open to all students. There is an introduction to the skills of understanding, reading and writing with special emphasis on the essential of grammar and pronunciation. The vocabulary and grammar are directed to reading Caesar.

LATIN 2

Academic / Full Year / 1 Credit

Prerequisite: Latin 1

This course is a continuation of the study of Latin grammar stressing, the different ways of the subjective, the infinitives and the participles. Exercises and vocabulary are based on Caesar. Church Latin is incorporated with excerpts from the vulgate and the mass. The study of Roman history and civilization are also included.

LATIN 3

Academic / Full Year / 1 Credit

Prerequisite: Latin 2

Grammar and vocabulary are based on Cicero-especially his First Oration Against Catiline. Latin concentrates on the growth of Christianity in the Ecclesiastical Roman world. Excerpts by the Church Fathers are studied. For a fee this course may be taken in conjunction with the Saint Francis University College in high school program. The students are enrolled in Latin 201 and receive 3 college credits.

LATIN 4

Honors / Full Year / 1 Credit

Prerequisite: Latin 3

Grammar and vocabulary are based on Virgil- especially on the Aeneid. Ecclesiastical Latin concentrates on recent church documents. For a fee, three college credits can be earned from SFU.

SPANISH 1

Academic / Full Year / 1 Credit

Open to all students. This is a first-year Spanish language course aimed at developing four basic skills: listening, speaking, reading and writing. Emphasis is on learning vocabulary and grammatical structure. Hispanic culture is also presented.

SPANISH 2

Academic / Full Year / 1 Credit

Prerequisite: Spanish 1.

This is a second level Spanish course in which the students, building on the knowledge acquired in Spanish 1, develop a greater proficiency in the four basic skills: listening, speaking, reading and writing. At the same time the course aims to increase the students' knowledge and appreciation of the diverse culture of the Spanish speaking world.

SPANISH 3

Academic / Full Year / 1 Credit

Prerequisite: 75% or higher average in Spanish 2.

This is a third level course that builds on the knowledge acquired in Spanish 2 and 3. Proficiency is stressed in reading comprehension and written expression. All basic aspects of Spanish grammar are reviewed and the uses of the subjunctive mood are emphasized. The attitudes of Hispanic youth toward contemporary society are studied and students are encouraged to compare these attitudes with their own. Students are expected to keep abreast of current events in the Hispanic world so they can participate in classroom discussions. For a fee, students can earn three college credits from St. Francis University.

SPANISH 4*Advanced / Full Year / 1 Credit***Prerequisite: 75% average or higher in Spanish 3 and recommendation of teacher.**

This course reviews and expands upon the essential grammatical points covered in the first three years of the language. It makes use of dialogues for reading practice, listening exercises, abundant personalized exercises, speaking strategies and a variety of activities intended to stimulate conversation. For a fee, students can earn three college credits from St. Francis University.

BUSINESS**ACCOUNTING – 11, 12***Academic / Full Year / 1 Credit*

This course presents the complete accounting cycle. Each topic builds upon previous knowledge, from the simple to the complex. Neatness and accuracy are important. Accounting is of value, not only, to those who wish to pursue careers in accounting or related fields; but also, to those who may wish to use this knowledge in their personal record keeping. For a fee, three college credits can be earned from Mount Aloysius College or Penn Highlands Community College

PERSONAL FINANCE – 11, 12*Academic / 1 Semester / 1/2 Credit*

A hands-on approach is used in this study of personal financial awareness. Each student will have an individual program that incorporates a career, bi-weekly paychecks, living arrangements, buying a car, monthly bills, and those nice, little, unexpected expenses that seem to come up at the most inopportune times. These individual programs will enhance the major areas addressed: effective career planning, finding and keeping a job, budgeting and money management, checking accounts and other banking services, taxes, and credit.

WALL STREET 101: BUSINESS IN A GLOBAL SOCIETY*Academic / Full Year / 1 Credit***Prerequisite: 80% or higher in Algebra II.**

Provides a broad business perspective that considers the ancient and modern economic systems that balance resource supply with human wants, the ethical and legal dimensions of business decisions, the role of demographic diversity in a multicultural workforce, and how business operates in a global society. This course is part of the Professor in Residence Program through Saint Francis University and is a 3-credit course.

FINE ARTS

*Note – Any student wishing to participate in any PMEA or Cambria County Honors Band Festivals must be scheduled for Band or Chorus **BOTH** semesters.*

MUSIC APPRECIATION – 9*Academic / 1 Semester / 1/2 Credit*

Music appreciation is an all-inclusive arts course where students are introduced to the iconic composers and their counterparts in the Visual Arts and Architecture in each style period. Students are shown how the Arts reflect the societies in which they were created from Caveman to modern day. It's a class for the eyes as well as the ears.

BAND – 9, 10, 11, 12*Academic / 1 or 2 semesters / 1/2 or 1 Credit*

The Band program provides opportunities for the student musician to develop and display his or her individual musical talents and to become a vital part of a cooperative organization that is dedicated to

musically enriching the student's life. Performing organizations may include marching, concert, pep and jazz bands, as well as smaller specialized ensembles. Members may perform in parades, football games, basketball games, Christmas and spring music programs. Outstanding instrumentalists are encouraged to participate in county and district band. Director's approval is necessary to enroll in any band organization. All after school rehearsals and performances are extensions of the course work and are included in the student's grade.

CHORUS – 9, 10, 11, 12

Academic / 1 or 2 semesters / 1/2 or 1 Credit

The chorus program provides opportunities for the student musician to develop and display his or her individual musical talents and to become a vital part of a cooperative organization that is dedicated to musically enriching the student's life. Performing organizations include concert and show choirs, as well as smaller specialized ensembles. Members perform at the Christmas and spring programs. Outstanding vocalists are encouraged to participate in county and district chorus. All after school rehearsals and performances are extensions of the course work and are included in the student's grade.

ART I – 10, 11, 12

Academic / 1 Semester / 1/2 Credit

Art I will consist of an exploration of two-dimensional art forms, specifically drawing, painting and sculpture. Art History will be referenced through class projects as fine art skills and techniques are learned. A 9" x 12" spiral-bound sketchbook is required for drawing assignments.

ART 2 – 10, 11, 12

Academic / 1 Semester / 1/2 Credit

Art II will consist of an exploration of three-dimensional art forms, specifically clay, advanced drawing, painting, and calligraphy. Hands-on experience in each of these areas will be supplemented by Art History which will be referenced through most class projects. A 9" x 12" spiral-bound sketchbook is required for drawing assignments.

ART APPRECIATION – 9

Academic / 1 semester / 1/2 Credit

This is an introductory course in art appreciation, focusing on the art and culture with an emphasis on the Elements and Principles of Art. Reading and sketching are enhanced by simple art projects which relate to each chapter. Through these experiences, students become aware of the rich heritage of their culture through an appreciation of art and knowledge of how art is created.

FINE ARTS: CULTURE AND VALUES – 10,11

Academic / 3 College Credits

This is part of the summer in France program with Saint Francis University

This course aims to make clearer the policies of the Roman Catholic Church across Western Europe – and especially France – during the Middle Ages. In an introductory class on pre-historical times and Antiquity, we will examine the birth of spirituality and abstract thought in mankind, and then move along to the emergence and development of Christianity during the Roman Empire.

AP 2-D ART – 11,12

Advanced / Full Year / 1 Credit

The AP 2-D Art course is for students interested in a rigorous and focused study in art. Students will develop a quality portfolio that demonstrates a mastery of concept, composition and execution in 2D design. This course is based on a student creating a body of work that demonstrates quality, concentration and breadth. This portfolio will be submitted to the College Board for college credit. The course will meet for a full year, 1 class period per day. As in any college-level course, students will be expected to spend a considerable amount of time outside of class in order to complete assignments and doing homework and sketchbook assignments.

AP DRAWING – 11,12*Advanced / Full Year / 1 Credit*

The AP Drawing course will give serious art students the opportunity to explore drawing issues including line quality, light and shade, rendering of form, composition, surface manipulation, the illusion of depth and mark-making through a variety of means, such as painting, printmaking or mixed media. This course is based on a student creating a body of work that demonstrates quality, concentration and breadth. This portfolio will be submitted to the College Board for college credit. The course will meet for a full year, 1 class period per day. As in any college level course, students will be expected to spend a considerable amount of time outside of class in order to complete assignments and doing homework and sketchbook assignments.

PHYSICAL EDUCATION AND HEALTH

Health and Physical Education Grade 9 – The physical education component will concentrate on general fitness, team work, leadership, sportsmanship, cardiovascular endurance, muscle endurance, muscle strength, flexibility, and life time sports and activities. This is a performance based curriculum. Students will be evaluated by written and pre and posttests that will give the student's feedback on their progress.

The health component of the course will have emphasis in stages of growth and development, interaction of body systems, nutrition, alcohol, tobacco, and chemical substances, health problems and disease prevention, safe/unsafe practices, strategies to avoid/manage conflict, safe practices in physical activity, physical activities that promote health and fitness , effects of regular participation, physical activity and motor skill improvement, physical activity and group interaction, movement skills and concepts, motor skill development, concepts, principals and strategies of movement – practice strategies, principles of exercise/training, and game strategies.

Health and Physical Education Grade 10 –The physical education component will concentrate on general fitness, team work, leadership, sportsmanship, cardiovascular endurance, muscle endurance, muscle strength, flexibility, and life time sports and activities. This is a performance based curriculum. Students will be evaluated by written and pre and posttests that will give the student's feedback on their progress.

The health component of the course will have emphasis in health practices, products and services, health information and consumer choices, health information and the media, decision-making skills, health and environment, strategies to avoid/manage conflict, safe practices in physical activity, physical activities that promote health and fitness, effects of regular participation, physical activity and motor skill improvement, physical activity and group interaction, movement skills and concepts, motor skill development, practice strategies, principles of exercise/training, and game strategies.

Health and Physical Education Grade 11- The physical education component will concentrate on general fitness, team work, leadership, sportsmanship, cardiovascular endurance, muscle endurance, muscle strength, flexibility, and life time sports and activities. This is a performance based curriculum. Students will be evaluated by written and pre and posttests that will give the student's feedback on their progress.

The health component of the course will have emphasis in emergency responses/injury management.

Health and Physical Education Grade 12- The physical education component will concentrate on general fitness, team work, leadership, sportsmanship, cardiovascular endurance, muscle endurance, muscle strength, flexibility, and life time sports and activities. This is a performance based curriculum.

Students will be evaluated by written and pre and posttests that will give the student's feedback on their progress.

The health component of the course will have emphasis physical activities that promote health and fitness, effects of regular participation, responses of the body systems to physical activity, physical activity preferences, physical activity and motor skill improvement, physical activity and group interaction, movement skills and concepts, motor skill development, practice strategies, principles of exercise/training, scientific principles that affect movement, and game strategies.

ELECTIVES 11-12

FAMILY & CONSUMER SCIENCES-11, 12

Academic / 1 Semester / 1/2 Credit

This course will address skills important in family life. It will include survival sewing to learn basic repair, washing, and ironing skills. Next, we will spend 8 weeks in child development, following conception, physical, intellectual, and emotional growth up to age 3. Day care visits will be part of the learning. Finally, students will spend 9 weeks learning basic cooking skills by preparing breakfasts, lunches, and dinners. The emphasis will be on healthy cooking, avoiding convenience or processed foods and using basic natural ingredients.

INTRODUCTION TO ENGINEERING AND STEM-11,12

Academic / Full Year / 1 Credit

Prerequisite: Cumulative GPA of 80% or higher and concurrent or previous enrollment in Pre-Calculus.

This course uses hands-on, project-based experience in the art of engineering design. The introductory course explores many sub-disciplines within engineering including civil, mechanical, environmental, petroleum, and chemical engineering. Students will develop new skills with some basic engineering tools and engage in ethical decision making. This course is part of the Professor in Residence Program with Saint Francis University and is offered as a 3-college credit course.