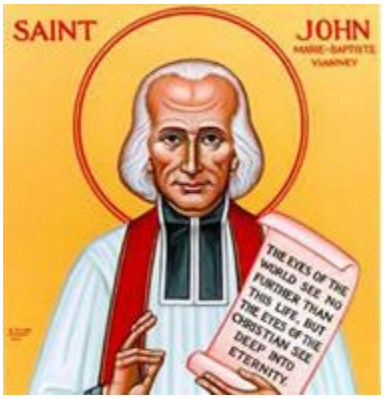
SAINT JOHN VIANNEY HIGH SCHOOL

Knowledge Commitment Involvement



Course of Studies Guide 2025 - 2026

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COURSE OF STUDIES GUIDE

This Course of Studies Guide describes the course offerings of Saint John Vianney High School. We hope that through the use of the course selection booklet, the students of Saint John Vianney High School will develop their capabilities, enrich their personal lives, and enhance their growth as Christian leaders. You will notice our guide begins with Theology and is listed alphabetically thereafter. Our Catholic faith comes first at Saint John Vianney High School.

Students are urged to carefully read the descriptions of the course selections. They should seriously consider present needs, achievements, interests, as well as graduation requirements. Future goals and ambitions should be weighed. When considering these factors, students should turn to their parents, teachers, and guidance counselors for needed help in making decisions that are appropriate for them. Whatever the students' plans, they should take the most challenging courses they can within their academic abilities.

BLOCK SCHEDULING

Students must take four courses each term, and each course is scheduled for approximately twice the standard instructional time as under traditional scheduling. All courses are 5 Credits, except for AP (Advanced Placement) Courses, which are 10 credits and taken the full school year. All students must take one term of a Theology course each year at Saint John Vianney High School.

GUIDANCE SERVICES

Our Guidance Services are based on the philosophy of "Catholic Service." Our counselors are available to help students and parents make decisions about their personal and social lives and plan for the future. We offer a full range of guidance services with a special emphasis on college and post-high school planning. We also coordinate the educational services of local, state, and federal agencies for our students and parents. Our goal is to have our graduates be self-sufficient and able to understand and deal confidently with the expectations of society. Please feel free to utilize our services at every opportunity.
All student athletes should discuss with their guidance counselors their intention to participate in college athletics. Please visit this website for NCAA eligibility: www.eligibilitycenter.org

REQUIREMENTS FOR GRADUATION

Graduation from Saint John Vianney High School requires the successful completion of certain required subjects, which include the following number of courses:

Religious Studies–4 (taken each school year at SJV)
English–4
Mathematics–3 (through Algebra II/Trigonometry)
Physical Education/Health–2** (Beginning with the Class of 2029 students will take PE through grade 11)
Lab Science–3
U. S. History–2
World History/Cultures–1
Fine/Performing/Practical Arts–1
World Languages-2

COLLEGE ADMISSIONS

All colleges are looking for candidates who have pursued the most rigorous program of studies that is available. Naturally, each college and each major has its own specific requirements, but the subjects listed below, with the number of courses completed, can be used as a base on which to plan. Remember, all students who apply to colleges will have the minimum – each SJV applicant should offer more:
English-4 Mathematics-3 (through Algebra II/Trigonometry) World Languages-2 Social Studies-3 Science Lab-3
Electives-3 (English, Social Studies, Mathematics, Religious Studies, Science, World Languages, Business/Technology)

**Early College Academy, Business Academy, and Pre-Law Academy students are not required to take Physical Education.

DUAL ENROLLMENT COURSES

Dual enrollment courses are offered through Brookdale Community College, Georgian Court University, University of Delaware, and Seton Hall University. Students entering a dual enrollment course must meet the prerequisites set by the college or university running the course. Payment for dual enrollment courses must be made by the deadline set by the college. The college or university defines the cost of the course. If payment is not made, a student will be removed from the course and placed in a different course. Students taking the Brookdale Community College courses must take the Brookdale Community College Placement Test and earn a qualifying score or meet the minimum SAT or ACT score determined by Brookdale Community College.

ADVANCED PLACEMENT COURSES

All students who take an Advanced Placement course at Saint John Vianney High School must pay for and take the Advanced Placement exam(s) on the scheduled date. The score(s) earned on the exam may or may not earn college credit or transfer to some or all colleges. Any student who drops an Advanced Placement course following semester 1 may receive a withdrawal (W) on his or her transcript. It is expected that the student will take both semesters of an Advanced Placement course and fully completes the course curriculum.

Contents

THEOLOGY

THEOLOGY 9
FOUNDATIONS OF CATHOLIC FAITH AND BELIEFS
This introductory course is for 9th grade students who have diverse religious backgrounds and faith experiences. The subject matter addresses the following: the organization and mission of the Church, fundamentals of Catholic morality, Bible skills, and basic understanding of the Old and New Testaments.

THEOLOGY 10
DEVELOPMENT AND FUNDAMENTAL BELIEFS WITHIN THE CATHOLIC TRADITION
This course offers an in-depth study of the Old Testament. Students study the foundations of Catholic ethics and morality.

THEOLOGY 11
THE CHURCH AND OUR ROLE AS ROMAN CATHOLICS
This course explores the theological, religious, historical, and cultural understanding of the nature of God and the development of the Doctrine of the Trinity. Students study the development and growth of the Church, the institution of the Sacraments, and the special role of various forms of prayer.

THEOLOGY 12
HISTORY OF THE CATHOLIC CHURCH AND ITS PLACE AMONG WORLD RELIGIONS IN THE MODERN WORLD
This course is designed to provide the student with a thorough study of the history of the Catholic Church from its religious foundations, beginning with Jesus and the Apostles, up to the challenges in modern times. Students will also examine the major world religions such as Judaism and Islam and the Eastern Religions such as Hinduism and Buddhism.

AIR FORCE JUNIOR ROTC ELECTIVE

ROTC HONORS GLOBAL AWARENESS AND LEADERSHIP
Open to students in grades 9, 10, 11, and 12

This course provides students with up-to-date information on exploring the concept of global awareness and the cultures of other regions throughout the world. It starts with an introduction of what global awareness is and the effects of technology on global culture. Students are then taken on a journey around the world, through different cultures in the Middle East, Asia, Africa, Latin America, Europe, and Australia. The students will be provided cultural information regarding Canada and Mexico.

This course is designed to improve communication, enhance awareness of self and others, and provide fundamentals of leadership and followership. The course focuses on the AFJROTC mission to "develop citizens of character dedicated to serving their nation and community." Woven throughout is the underlying theme of developing personal integrity. The course also emphasizes leadership and values such as service and excellence.

Finally, wellness is an official and integral part of the Air and Space Force Junior ROTC program. The course objective is to motivate JROTC cadets to adopt active, healthy lifestyles beyond program requirements and into their adult lives. The wellness curriculum is instrumental in developing citizens of character, dedicated to serving our nation and communities. The program is provided as a tool to help develop individualized fitness programs for cadets. Cadets will be given the opportunity to put into practice wellness concepts.

BUSINESS/TECHNOLOGY

ACCOUNTING 101

Prerequisites* *Open to students in Grades 11 and 12 with successful completion of Algebra II with a B or higher or successful completion of Algebra II B with C or higher.

This course introduces the students to the basic elements of accounting theory and procedures. It also includes computer instruction and develops student skills in business decision-making, and critical thinking, both ethically and accurately. The course contains the accounting cycle for service, retail, and corporate finances.

COMPUTER SCIENCE

Open to grades 9, 10, 11, and 12

This course introduces students to programming computer systems, coding, mobile apps, cyber security and gaming. Topics include the use of variables, loops, conditional logic, logical operators and functions. Students will apply these programming principles to develop software for PCs and robots. This is a project-based course.

FINANCIAL LITERACY

Open to students in Grades 9, 10, 11, and 12

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

ROBOTICS

Open to grades 9, 10, 11 and 12

This is an introductory programming course applied to robotics. Students will study and learn how to write programs with an emphasis on developing their problem-solving and analytical skills, while enhancing their logical problem-solving abilities. They will learn to write their own computer programs from an object-oriented perspective. Number systems key to computer programming, flowcharting, algorithm development structured programming, and stepwise refinement will follow. They will create figures that move on a computer screen and then learn to program free-standing robots. This class provides a solid programming foundation that students will find beneficial for future pursuit of computer science courses.

HONORS ENGINEERING I

Prerequisites* *Grade 9 with placement in Honors Mathematics

Grades 10, 11, and grade 12 students in an Honors Math course

This course will prepare students for college majors in engineering, and engineering technology fields, or other post-secondary experiences related to engineering. This first-year course is designed to be a foundation course and provide basic understanding of robotics, mechanics, and engineering concepts. Students will apply basic mechanical physics and programming to create devices to solve real-world problems. This course embraces STEM (Science, Technology, Engineering and Math) curriculum for the student and helps them to see how these subjects relate to real-world needs and careers.

HONORS ENGINEERING II

Prerequisites* *Grades 10, 11, and 12 and completion of Honors Engineering I with B- or higher and/or successful completion of Physics with a B or higher

This second-year course focuses on the engineering design process. Students will learn a broad range of engineering topics including mechanics, the strength of structures and materials electronics, automation, thermodynamics, and aerodynamics. Students develop skills in problem-solving, research, and design while learning strategies for design process documentation, collaboration, and presentation.

MARKETING

Prerequisites* *Open to students in Grades 10, 11 and 12

This course will help students develop an understanding of the broad field of business marketing and distribution. It will deal with the study of what marketing is, its role in the American economic system, the relationship of marketing to the consumer, marketing mathematics, basic sales, sales promotion, retailing, wholesaling, merchandising and operations.

DUAL ENROLLMENT MANAGEMENT THEORY AND ORGANIZATIONAL BEHAVIOR

Dual enrollment with Georgian Court University

The cooperating college/university will determine eligibility for college credit and assess an additional fee for the credit.

Open to students in Grades 10 *Business Academy students only, 11, and 12

Students will study management theories as they apply to organizations and develop the skills essential to effective management. Technology is integrated into this course and consideration is given to ethical and global issues, along with social, legal, and environmental viewpoints that help shape management decision-making.

DUAL ENROLLMENT PRINCIPLES OF FINANCIAL ACCOUNTING

Dual enrollment with Georgian Court University

The cooperating college/university will determine eligibility for college credit and assess an additional fee for the credit.

Open to students in Grades 10 *Business Academy students only, 11, and 12

Students will study the theory and procedures of accounting, including transaction recording; accrual accounting and matching concepts; financial statement preparation; inventories and merchandising company accounting; cost of goods sold; and accounting for cash, receivables, and fixed assets.

DUAL ENROLLMENT INTRODUCTION TO BUSINESS AND PERSONAL FINANCE

Dual enrollment course with Georgian Court University

The cooperating college/university will determine eligibility for college credit and assess an additional fee for the credit.

Open to students in Grades 9*, 10, 11, and 12

***Students in Grade 9 Business Academy only**

Examine the responsibilities of business as part of our society and explore the importance of personal financial literacy. Review the management and marketing process, leadership, human resource management, the functions of financial institutions, and careers in business. Also includes personal financial issues such as credit card traps, loans, planning, and long-term investing.

DUAL ENROLLMENT MACROECONOMICS

Dual enrollment course with Georgian Court University

The cooperating college/university will determine eligibility for college credit and assess an additional fee for the credit.

Open to grades 10, 11, and 12

Investigate the concepts of people making correct or optimal decisions to achieve the highest level of well-being given limited and scarce resources through the use of supply and demand analysis. Focus on the theories behind national income accounting, how and why a country's economy grows or declines over time, and why a country sometimes experiences periods of high unemployment and/or high rates of inflation. Examine the role business and government can play in causing and eliminating economic instability in our economy. Discuss the basics behind international trade and finance.

DUAL ENROLLMENT MICROECONOMICS

Dual enrollment course with Georgian Court University

The cooperating college/university will determine eligibility for college credit and assess an additional fee for the credit.

Open to grades 10, 11, and 12

Examine rational decision-making by individuals, households, and firms under different levels of completion, regulations, and policy constraints. Investigate why consumers buy different products and how firms determine how much to produce of each product under various levels of competition. Examine why people get paid different wages and salaries, poverty, the distribution of income in our society, and externalities such as pollution.

DUAL ENROLLMENT COMPUTER LOGIC AND DESIGN

Dual Enrollment with Brookdale Community College

The cooperating college/university will determine eligibility for college credit and assess an additional fee for the credit.

***Open to students in grades 11 and 12**

***Students must take the Brookdale Community College Placement test and earn a qualifying score for acceptance into the course or meet minimum SAT or ACT requirement determined by Brookdale Community College**.

This course provides students with an introduction to computer systems. The topics include computer components, computer programming logic using design structures, developing algorithms, coding programs, and debugging program code.

DUAL ENROLLMENT PROGRAMMING I

Dual Enrollment with Brookdale Community College

The cooperating college/university will determine eligibility for college credit and assess an additional fee for the credit.

Prerequisite* * Completion of DE Computer Logic and Design

***Open to students in grade 12**

The student will be able to analyze a variety of problems, develop algorithms to solve those problems and code solutions using JAVA. The fundamentals of software development, which includes logic, control structures, arrays, methods, classes, documentation techniques, testing, and debugging, are covered. Assignments give students hands-on experience to design, write, test, debug and edit their program code using an integrated development.

DUAL ENROLLMENT PROGRAMMING II

Dual Enrollment with Brookdale Community College

The cooperating college/university will determine eligibility for college credit and assess an additional fee for the credit.

Prerequisite* * Completion of DE Computer Logic and Design and DE Programming I

***Open to students in grade 12**

This course continues the development of problem-solving, logical thinking, and object-oriented programming techniques using JAVA. Topics and techniques covered include design features from objects, classes, and objects as encapsulation tools, inheritance and hierarchies among classes, polymorphism, exception handling, and GUI/event-driven programming. Assignments give students hands-on experience to design, write, test, debug and edit their program code using an integrated development environment.

DUAL ENROLLMENT SYSTEM ANALYSIS AND DESIGN

Dual Enrollment with Brookdale Community College

The cooperating college/university will determine eligibility for college credit and assess an additional fee for the credit.

***Open to students in grade 12 and successful completion of Dual Enrollment Comp Logic and Design**

Students will acquire working knowledge of principles, methods, and procedures required to develop a computerized information system. They will be able to identify, describe, and perform the various tasks associated with computer system development, particularly in systems planning, management, analysis and design, implementation and support.

DUAL ENROLLMENT DATABASE CONCEPTS

Dual Enrollment with Brookdale Community College

The cooperating college/university will determine eligibility for college credit and assess an additional fee for the credit.

Prerequisite* * Completion of DE Computer Logic and Design

***Open to students in grade 12**

This course covers how to analyze data and effectively design databases. The fundamental concepts of relational database design, implementation, and administration are presented. Design concepts include entity relationship modeling and normalization. The relation design is developed using a modeling tool. Database implementation and administration are covered through basic and advanced SQL.

DUAL ENROLLMENT ENTREPRENEURSHIP EXPERIENCE

Dual Enrollment with University of Delaware

The cooperating college/university will determine eligibility for college credit and assess an additional fee for the credit.

***Open to students in grades 11 and 12**

This course provides a strong foundation of entrepreneurship-related knowledge, skills, and experiences. The course follows best practices for entrepreneurship education, which include learning by doing, reflecting on first-hand experiences, and emphasizing an evidence-based entrepreneurship process.

DUAL ENROLLMENT BUSINESS LAW

Dual Enrollment with Georgian Court University

The cooperating college/university will determine eligibility for college credit and assess an additional fee for the credit.

***Open to students in grades 11 and 12**

This course is an introduction to the legal environment and the ethical and social responsibilities of businesses and individuals. This course includes dispute resolution, common law, statutory and administrative law, constitutional law, torts, negligence, and extensive coverage of contract law.

DUAL ENROLLMENT SPORTS MANAGEMENT

Dual Enrollment with Georgian Court University

The cooperating college/university will determine eligibility for college credit and assess an additional fee for the credit.

***Open to students in grades 11 & 12**

This course focuses on an overview of selected areas of sports management. This course provides students with an opportunity to understand the broad field of sports management and identify skills, knowledge, and experiences needed by managers of sports programs.

ENGLISH

ENGLISH I

This course focuses on major literary genres and the criteria for evaluating them. Writing and reading skills are enhanced, along with critical thinking skills, in coordination with the study of literature. Students will demonstrate successfully their ability to generate a thesis paper upon completion of the course. Grammar and vocabulary skills are stressed and enhanced through the use of a variety of resources.

HONORS ENGLISH I

Prerequisite* *Recommended by Curriculum Coordinator for students who demonstrate high proficiency in the areas of reading, comprehension, and written expression on the HSPT and/or their most recent standardized test scores.

This course provides an in-depth study of various literary genres. The curriculum includes a meticulous literary analysis of the novel, the application of critical thinking skills, and expository writing. After a review of basic grammar concepts, students will demonstrate their ability to generate a thesis paper upon completion of the course. Vocabulary enrichment is provided through the use of a variety of resources.

ENGLISH II

Prerequisite* *Successful completion of any level of English I

This course builds on students' understanding of literary genres and presents a thematic study of world literature throughout the ages. Composition and grammar skills, along with critical thinking skills, are further developed through the writing of expository essays, including argument. Vocabulary skills are developed through exercises.

HONORS ENGLISH II

Prerequisite* *A grade of A in English I or B in Honors English I plus teacher recommendation

This accelerated and demanding survey of world literature emphasizes the chronological development of literature, language, art, and philosophy. Students will develop critical thinking skills to critically analyze and interpret literature. Independent readings of representative works are required. Students will apply their analysis of literature through the writing of expository essays and synthesis papers. Grammar skills and vocabulary enrichment are expanded through exercises in the respective texts.

ENGLISH III

Prerequisite* *Successful completion of any level of English II

This course will cover the evolution of literature in America beginning with the Romantic period and moving into the present. Major literary movements will be studied through the works of famous American authors. Students will read short and full-length works, and participate in discussions regarding themes, characters and literary techniques. They will write analytical papers on work studied. Students will also write a five-paragraph essay using primary source material to support the thesis.

HONORS ENGLISH III

Prerequisite* *A grade of A in English II or B in Honors English II plus teacher recommendation

This accelerated and demanding survey of American literature will cover the evolution of literature in America through the major thematic topics. Students will read short and full-length works, participating in discussions regarding theme, characters, literary techniques, and modern literary criticism. They will write analytical papers on works studied, focusing on logical argumentation. Students will also write a researched synthesis essay using primary source material to support the thesis.

A.P. ENGLISH LANGUAGE AND COMPOSITION

Prerequisites* *Open to 11th and 12th grade students

***A grade of A- in Honors English II with a minimum PSAT score of 560 on PSAT evidence-based reading and writing score or Pre-ACT score of 51 (English and reading combined) or ACT score of 51 (English and reading combined)**

***Honors English II teacher recommendation**

The AP English Language and Composition course is designed to help students become skilled readers of prose written in a variety of periods, disciplines, and rhetorical contexts and to become skilled writers who can compose for a variety of purposes. To accomplish this task, the course requires expository, analytical, and argumentative writing assignments that are based on readings representing a wide variety of prose styles and genres. Through writing and reading in this course, students should become aware of the interactions among a writer's purposes, audience expectations, and subjects, as well as the way generic conventions and the resources of language contribute to effective writing. Students in this class are required to take the Advanced Placement English Language and Composition Exam from the College Board in May.

A.P. ENGLISH LITERATURE AND COMPOSITION

Prerequisites* *Open to 11th and 12th grade students

***A grade of A- in Honors English III with a minimum SAT evidence-based reading and writing score of 550 or Pre-ACT or ACT score of 63 (English and reading combined) and Honors English III teacher recommendation.**

OR

***Successful completion of A.P. English Language and Composition with that teacher's recommendation.**

This course, for highly motivated students, involves the comprehensive reading and study of selected works of classical and contemporary literature. Students will learn the various approaches to analyzing literature and the terms needed to explicate their observations. Students will write critical and interpretive papers based on their close readings. Students in this class are required to take the Advanced Placement English Literature and Composition Exam from the College Board in May.

ENGLISH IV

Prerequisite* *Successful completion of any level of English III

This course is a survey of British literature with an emphasis on major themes presented through various genres. Students will apply their critical thinking skills through argumentative writing in conjunction with their literary study. Students will write a synthesis essay using primary and secondary sources to support the thesis. They will enhance vocabulary knowledge through skilled practice and complete a research essay on a relevant topic.

HONORS ENGLISH IV

Prerequisite* *A grade of A in English III or B in Honors English III plus teacher recommendation

This course offers students an opportunity for application of critical thinking skills through in-depth study and analysis of some of the great classics of British literature presented in various genres. Students will be required to supplement class assignments by completing designated outside readings and writing reports. A research-based synthesis essay along with other expository writings will be completed by students.

DUAL ENROLLMENT ENGLISH 121: ENGLISH COMPOSITION

Dual enrollment with Brookdale Community College

Prerequisites* *Brookdale Community College will determine eligibility for college credit and assess an additional fee for the credit. Students must pass Brookdale Community College Placement Test or meet minimum SAT or ACT requirement determined by Brookdale Community College

***Open to students in grades 11 and 12**

***A grade of A- in Honors English III for seniors with teacher recommendation or a grade of A in Honors English II for juniors with course teacher recommendation**

OR

***Recommendation of AP English Language and Composition teacher**

Honors English 121 is a college-level, introductory writing course in which students compose and revise narrative and expository essays, in addition to using writing to analyze texts. Through a writers' workshop approach, students explore the writing process, respond to a variety of texts, and learn to communicate their ideas effectively and confidently in writing. As this course will offer students dual credit between Saint John Vianney High School and a cooperating college/university, students should be prepared for challenging assignments, firm deadlines, and the need for active participation. Assignments MUST be submitted digitally. Students in this course are required to register for credit with the cooperating college.

DUAL ENROLLMENT ENGLISH COMPOSITION 122: WRITING AND RESEARCH

Dual enrollment with Brookdale Community College

Prerequisites* *Completion of DE English 121 with a grade of C or higher

***Open to students in grades 11 and 12**

This course teaches techniques and strategies for conducting research and for writing effectively on a range of subjects. Students learn to write and revise persuasive papers using critical thinking skills and information they find to support an assertion or position. Related reasoning and support for papers necessitates inquiry into social ethics and moral situations. Students learn to analyze and process this information using foundational principles of logic, ethical reasoning, and social morals. Students also learn and demonstrate proper documentation style.

DUAL ENROLLMENT SHORT STORY

Dual enrollment with Brookdale Community College

Prerequisites* *Brookdale Community College will determine eligibility for college credit and assess an additional fee for the credit. Students must pass Brookdale Community College Placement Test to meet minimum SAT or ACT requirement determined by Brookdale Community College.

***Open to students in grades 11 and 12**

Students will read and discuss short stories drawn from the literature of many cultures and countries. They will analyze the stories for the theme, form, relationship to their own lives, and reflection of various cultures. The relevance of these short stories for the modern reader will be examined.

ENGLISH DEPARTMENT ELECTIVES

All courses meet the Fine, Practical, or Performing Arts requirement for graduation.

JOURNALISM I

Prerequisite* *Open to students in Grades 9, 10, 11, and 12

This is a writing-intensive workshop course that introduces students to journalism's highest standards. The class's news laboratory is the school where students work to produce a newspaper. Topics include news writing, feature writing, interviewing, photojournalism, sports writing, music, book and movie reviewing, editorial writing, and layout. The newspaper is designed through PageMaker and Photoshop and posted on the school website.

JOURNALISM II

Prerequisite* *Successful completion of Journalism I with a minimum grade of B+ and Journalism Teacher's recommendation

This course is for students who want to take their study of journalism to a higher level. Students take on the editorial leadership of the school newspaper as they upgrade their writing skills and develop an in-depth understanding of journalism production, history and ethics. Production assessment is based on journalism's A-B-C gold standard: Accuracy, Brevity, and Clarity.

JOURNALISM III

Prerequisites* *Final grades of A- or higher in Journalism I and Journalism II, along with Journalism Teacher's recommendation

This course is an intensive immersion in all aspects of newspaper and public relations work. A college-level standard is applied to achievement in all areas. Students use state-of-the-art technology to develop page makeup that clearly shows the interrelationship of pictures and text. Journalistic proficiencies are fine-tuned. The course is for students who are seriously considering working in the field of journalism.

YEARBOOK I

***Yearbook moderator approval**

Prerequisites* *Open to students in Grades 11 and 12

***Successful completion of any level of English II, English III with a minimum grade of A- OR**

***Successful completion of AP English Language & Composition**

This course is designed to teach students the fundamentals of Yearbook publishing. Students will write Yearbook copy and feature articles, proofread manuscripts, and layout pages using a computerized desktop publishing system. The basics of photography will be taught. No prior experience is required, but students must have good writing/editing skills and be detail-oriented. Strong leadership skills will be developed as well.

YEARBOOK II

***Yearbook moderator approval**

Prerequisites* *Open to students in Grade 12

***Successful completion Yearbook I**

This course is designed to continue to teach students about Yearbook publishing. Students will write and edit copy and feature articles, proofread manuscripts, and layout pages using a computerized desktop publishing system. Strong leadership skills continue to be fostered.

FINE & PERFORMING ARTS

ART FUNDAMENTALS

Open to students in grades 9, 10, 11 and 12

This course is an introductory level course dedicated to providing an opportunity for students to develop their drawing and painting skills. These skills will be established through the seven elements of art using wet and dry media. Understanding the influence of art throughout history will enable students' ability to create through self-expression. Self-motivation, self-discipline, and independent thinking are encouraged in each student.

BASIC DESIGN

Open to students in grades 9, 10, 11, and 12

This course offers an exploration of the foundational design principles, spanning both two-dimensional and three-dimensional forms. Emphasizing independent work habits and advanced art creation skills, the curriculum includes basic drawing and painting techniques. Students will explore art history, product design, and compositional design. This approach enables students to conceptualize and create original designs, preparing them for further studies in various design disciplines.

DIGITAL ART

Open to students in Grades 11 and 12

Students will learn the elements and principles of design and composition using the computer as a tool of art. Basic drawing techniques, perspective, layout and lettering as well as advertising and landscape design will be explored. Students will be required to provide their own USB storage device.

PHOTOGRAPHY: AN INTRODUCTION

Prerequisite* *Open to students in Grades 10, 11 and 12

Requirements: Each student must provide a digital camera for class and a USB for storage or transfer of images.

No matter what kind of photos you like to take, this course will help you to become a better photographer. During this hands-on course, instruction will be given on all types of photographic styles including portraiture, action, still life, and nature. Technical matters and unique lighting problems will be examined and solved. Students will learn to edit their photos using Adobe Photoshop. The work and techniques of famous photographers as well as the history of photography, will be studied during the course of the semester.

A.P. STUDIO ART

Prerequisites* *Open to students in grades 10, 11, and 12

***Successful completion of Art Fundamentals and either DE Drawing OR Basic Design*Teacher recommendation**

This course is designed for students who are highly motivated and seriously interested in the study and practical experience of art. It is a rigorous program with specific guidelines for successfully completing a large body of work for the AP Art Exam. Work outside of the classroom is necessary to complete the requirements. Submission of a portfolio in May is mandatory for receiving AP credit. If required work is not completed and submitted, then regular Studio Art credit will be given. ***Each student must provide a camera and USB storage device for class daily.***

DUAL ENROLLMENT DRAWING I

Dual enrollment course with Georgian Court University. The cooperating college/university will determine eligibility for college credit and assess an additional fee for the credit.

Prerequisite* *Grade 9 Portfolio Review *Grades 10, 11, and 12: Successful completion of Art Fundamentals, Basic Design or Textile Design and teacher recommendation

This Georgian Court University class is a studio course. Through the process of experimenting with a variety of drawing techniques and materials students will develop their drawing skills through observational drawing. Emphasis will be on student creativity.

DUAL ENROLLMENT VISUAL ART AND DESIGN

Dual enrollment course with Georgian Court University

The cooperating college/university will determine eligibility for college credit and assess an additional fee for the credit.

Prerequisite* *Grades 10, 11, and 12: Successful completion of Art Fundamentals, Basic Design or Textile Design and teacher recommendation

An investigation of the formal principles of design and communication used in the studio by visual artists. Visual perception is developed through hands-on projects in both traditional and digital media; two-dimensional, three-dimensional, and color will be covered. Through the process of thinking through a series of visual problems, students will develop the skills and vocabulary needed to assess their work and gain a better understanding of the role of design in the creative process.

BEGINNING GUITAR

Open to students in grades 9, 10, 11, and 12

This course is an entry-level music class. Basic skills include holding the instrument, proper positioning of the hands, and proper playing techniques. Students are taught to read music, execute proper technique, play chords, and read tab. Students are expected to practice what is taught in class at least thirty minutes a day at home.

GUITAR II

Open to students in grades 9, 10, 11, and 12

Prerequisite* *Successful completion of Guitar I and teacher recommendation

This course is a secondary-level music course. Students will learn performance techniques and expand on their guitar playing abilities.

BEGINNING PIANO

Open to students in grades 9, 10, 11, and 12

This course is an entry-level music class. Basic skills include proper positioning of the hands, proper playing techniques, and reading music. Students are expected to practice what is taught in class at least thirty minutes a day at home.

PIANO II

Open to students in grades 9, 10, 11, and 12

Prerequisite* *Successful completion of Piano I and teacher recommendation

This course is secondary-level music course. Students will learn performance techniques and expand on their piano playing abilities.

AUDIO ENGINEERING

Open to students in grades 9, 10, 11, and 12

Students will learn the ins and outs of recording auditing in many different environments. The class will focus on simple voice-over and editing, all the way through advanced music recording, both live and in studio. The class will use recording industry standards, preparing the students for a future in audio engineering.

MATHEMATICS

ALGEBRA I PART A

Prerequisites * *Based on HSPT score and standardized test scores.

Algebra I Parts A and B cover the same material as Algebra I, but over the course of a year instead of during one semester. In Part A, topics include simplifying numerical and algebraic expressions; an introduction to relations and functions; solving, graphing and writing linear equations and inequalities (including those involving absolute value); solving systems of linear equations; and working with exponents, roots and radicals. This course requires a TI-NSpire CX II graphing calculator. Students move from this course to Algebra I Part B.

ALGEBRA I PART B

Prerequisite* *Completion of Algebra I Part A

In this course, students continue their study of Algebra I by expanding and factoring polynomials; solving, graphing and writing quadratic equations; simplifying rational expressions; and exploring basic principles of data analysis and probability. Modeling and application problems are infused throughout the course. This course requires a TI-NSpire CX II graphing calculator. Upon completion of Algebra I Part B, students move on to Plane Geometry.

ALGEBRA I

Prerequisite* *Based on HSPT score and standardized test scores.

Algebra I is designed to give students a foundation for all future mathematics courses. Topics covered include an introduction to relations and functions; solving, graphing and writing linear equations and inequalities (including those involving absolute value); systems of linear equations; working with exponents, roots and radicals; expanding and factoring polynomials; solving, graphing and writing quadratic equations and an introduction to rational expressions. Modeling and real-world applications are infused throughout the course. This course requires a TI-NSpire CX II graphing calculator.

HONORS ALGEBRA I

Prerequisites* *Recommended by the Curriculum Coordinator for incoming freshmen who demonstrate high proficiency on the HSPT and their most recent standardized tests OR * Qualifying score on the SJVHS Algebra Achievement Test and Curriculum Coordinator approval.

Honors Algebra 1 is designed to provide students with a foundation for all future honors mathematics courses through an in-depth study of Algebra 1 topics at an accelerated pace, with enrichment problems and real-world applications woven throughout the course. This course requires a TI-NSpire CX II graphing calculator.

PLANE GEOMETRY

Prerequisites* *Completion of Algebra 1 Parts A and B

This course approaches geometry from a hands-on and visual perspective. Topics covered include angles, parallel and perpendicular lines, congruence, similar triangles, properties and applications of right triangles, polygons, circles, perimeter, area, and coordinate geometry. A brief introduction to right triangle geometry is also included. This course requires a TI-NSpire CX II graphing calculator.

PLANE GEOMETRY/TRIGONOMETRY

Prerequisites* *Completion of Algebra I with a minimum grade of C or completion of Algebra I A and B with an average of A or better and Teacher Recommendation.

Studying geometry provides many foundational skills and helps to build the thinking skills of logic, deductive reasoning, analytical reasoning, and problem-solving. In this course, plane Euclidean geometry is developed through a systematic application of postulates and theorems. Topics covered include angles, parallel and perpendicular lines, congruence, similar triangles, properties and applications of right triangles, polygons, circles, perimeter, area, volume and coordinate geometry. Students will also complete a unit on right triangle trigonometry. This course requires a TI-NSpire CX II graphing calculator.

HONORS GEOMETRY/TRIGONOMETRY

Prerequisites* *Grade 9: qualifying score on the SJVHS Math Algebra I Achievement Test and Curriculum Coordinator approval, or *Grade 9/10: Minimum grade of B in Honors Algebra I at SJVHS

This accelerated course is designed for students who have a strong background in Algebra I, as demonstrated by the qualifying score on the SJVHS Algebra I Achievement Test or by achieving a grade of B or better in Honors Algebra I at SJVHS. It provides a rigorous, proof-based study of the topics in the Plane Geometry/Trigonometry course. It expands the trigonometry unit to include trigonometric functions and their inverses, as well as using the Law of Sines and Law of Cosines to solve triangles. This course requires a TI-NSpire CX II graphing calculator.

ALGEBRA 2/TRIGONOMETRY

Prerequisite* *Grade of C or better in both Algebra 1 and in Plane Geometry/Trigonometry

The course reviews Algebra I and continues with an in-depth study of relations and functions. Linear, absolute value, quadratic and piecewise functions and their applications are emphasized, as well as solving systems of linear and quadratic functions. Additional topics include the complex number system, polynomial, rational and radical functions. After a review of the triangular trigonometry studied in Plane Geometry/Trigonometry, students are introduced to circular trigonometry. This course requires a TI-NSpire CX II graphing calculator.

ALGEBRA 2

Prerequisite* *Completion of Plane Geometry/Trigonometry with C- or less or completion of Plane Geometry

The course provides an in-depth review of Algebra 1 and continues a study of linear, quadratic, absolute value, and piecewise functions. Additional topics include the complex number system, as well as an introduction to polynomial, rational and radical functions. This course requires a TI-NSpire CX II graphing calculator.

HONORS ALGEBRA 2/TRIGONOMETRY

Prerequisite* *A minimum grade of B in Honors Geometry/Trigonometry (and in Honors Algebra I if this course was taken)

***Minimum PSAT score of 500 strongly advised or minimum Pre-ACT score of 18 or above in Math**

This course presents a modern integrated course in intermediate algebra and trigonometry, including a thorough review of elementary Algebra. It stresses broad, basic, and unifying concepts of functions and their transformations including linear, piecewise, absolute value, quadratic, polynomial, exponential, logarithmic, trigonometric, and inverse functions. Additional units of study include complex numbers, types of variation, systems of equations involving three variables and trigonometric graphs, identities, and equations. This course requires a TI-NSpire CX II graphing calculator.

ADVANCED ALGEBRA AND TRIGONOMETRY

Completion of Algebra 2

This course reviews solving quadratic, polynomial, rational, and radical equations, and then introduces solving exponential and logarithmic equations. The second half of the course includes a thorough study of right triangle trigonometry and an introduction to circular trigonometry. This course requires a TI-NSpire CX II graphing calculator.

MATH MODELING

Prerequisites* * Completion of Algebra 2/Trigonometry, or Advanced Algebra and Trigonometry

A "mathematical modeling" is an expression, equation, or inequality that describes a real-world process. In this course, students will encounter a variety of real-world problems that can be solved with linear, quadratic, rational, exponential and trigonometric functions. Applications include topics related to health and fitness, the environment, civic readiness, finance, the digital world, and the arts. This course requires a TI-NSpire CX II graphing calculator.

PRE-CALCULUS

Prerequisite* *Minimum grade of C in Algebra 2/Trigonometry

This course will prepare students for advanced mathematical study leading to Calculus. It includes a thorough analysis of the behavior of linear, polynomial, rational, radical, exponential and logarithmic functions. It extends the previous study of trigonometry to include transformations of trigonometric graphs; simplifying trigonometric identities; and solving trigonometric equations. It also includes the study of conic sections. This course requires a TI-NSpire CX II graphing calculator.

HONORS PRE-CALCULUS

Prerequisites* *Grade of B or better in Honors Algebra 2/Trigonometry

***Minimum PSAT/SAT Score of 500 strongly advised or Pre-ACT score of 18 or above in Math**

***Teacher recommendation**

This course is designed to prepare advanced mathematics students for the study of Calculus. This course emphasizes the treatment of conic sections, functions, analytic geometry and higher-level Algebra and Trigonometry with an emphasis on using the graphing calculator as a tool for analyzing and exploring functions. SAT/ACT-type questions are embedded throughout the course. This course requires a TI-NSpire CX II graphing calculator.

HONORS DIFFERENTIAL CALCULUS

Prerequisites* *Minimum grade of C in Honors Pre-Calculus or minimum grade of A- in Pre-Calculus and

***Teacher recommendation**

This course is for the student not ready for a full year of college-level calculus. It provides a thorough review of elementary functions and then goes on to cover limits; definition and rules of differentiation; and applications of differentiation. This course requires a TI-NSpire CX II graphing calculator.

AP CALCULUS AB

Prerequisites* *Minimum grade of B+ in Honors Pre-Calculus and minimum SAT math score of 550 or score of 23 on ACT Math

***Teacher recommendation**

This college-level course is for strong mathematics students with a solid foundation of functions, trigonometry and analytic geometry. It entails a comprehensive study of one semester of college-level differential and integral calculus. Students will take the Advanced Placement exam in May, in lieu of the final semester exams. This course requires a TI-NSpire CX II graphing calculator.

AP CALCULUS BC

Prerequisites* *Minimum grade of B in AP Calculus AB

***Teacher recommendation**

This college-level course is for the exceptional mathematics student who has exhibited superb analytical thinking skills. It entails a comprehensive study of two semesters of college-level differential and integral calculus. In addition to incorporating all the topics covered in A.P. Calculus AB, it also includes parametric, polar and vector representations of functions, as well as a thorough study of infinite series. Students will take the Advanced Placement exam in May, in lieu of the final semester exams. This course requires a TI-NSpire CX II graphing calculator.

AP STATISTICS

Prerequisites* *Minimum grade of B in Pre-Calculus or B- in Honors Pre-Calculus (prior to Pre-Calculus requires Curriculum Coordinator approval) and

***Minimum Math SAT score of 550 and minimum Verbal SAT score of 550 or score of 23 on ACT Math and 43 on ACT English and reading.**

*** Teacher recommendation**

This college-level Statistics course introduces students to the major concepts and tools for collecting, analyzing and drawing conclusions from data. It requires extensive writing and strong verbal skills as well as strong math and logic skills. Students are exposed to four broad conceptual themes: (1) Exploring Data (describing patterns and departures from patterns);(2) Sampling and Experimentation (planning and conducting a study); (3) Anticipating Patterns (exploring random phenomena using probability and simulation); and (4) Statistical Inference (estimating population parameters and testing hypotheses). This course requires a TI Nspire CX II graphing calculator. Students will take the Advanced Placement exam in May, in lieu of the final semester exams.

PROBABILITY AND STATISTICS

Prerequisites* * Grade of B or better in Algebra 2 or in Advanced Math

Or *Grade of C or better in Algebra 2/Trigonometry

This course will prepare the student for college Statistics. It will include an emphasis on the vocabulary of statistics, an intuitive notion of the tests and models for a given set of data, evaluation of statistical claims, and the basic principles of probability. This course requires a TI-NSpire CX II graphing calculator.

DUAL ENROLLMENT STATISTICS

Dual enrollment with Brookdale Community College

Prerequisites* *Brookdale Community College will determine eligibility for college credit and assess an additional fee for the credit. Students must pass Brookdale Community College Placement Test to meet minimum SAT or ACT requirement determined by Brookdale Community College.

***Open to students in grades 11 and 12, B- or higher in Honors Algebra 2/Trig, or Algebra 2/Trig with an A or higher AND Honors English II with a B or English II with A or higher.**

This course begins with descriptive statistics, including graphical representations of data and measures of central tendency, position and variation. Basic probability concepts lead to the study of the binomial and normal probability distributions. The course continues with the Central Limit Theorem and its use in the development of estimation through confidence intervals and hypothesis testing. The course concludes with Chi Squares tests and linear correlation and regression. Computer software will be used in class to gain a greater understanding of underlying concepts.

PHYSICAL EDUCATION & HEALTH

PHYSICAL EDUCATION / HEALTH – GRADE 9 ***FITNESS/NUTRITION, DRUGS AND ALCOHOL***

Through exercise, team sports, and Fitness Gram testing, the students will get a chance to develop their skeletal and cardiovascular systems. Certain activities will offer the students social contacts that help to foster social growth and the development of a positive self-image. Students will sign up for the Physical Education activity of their choice and they will take four activities in a term. Physical Education activities are based on student interests.

Students will be given the tools to achieve optimum wellness. Emphasis will be on fitness nutrition and positive self-image (eating disorders and obesity), with some time devoted to safety and stress management. Students will learn to establish personalized fitness programs. This course will also cover drugs and alcohol and help guide the students to make solid value judgments and present them with all the available pertinent information. Such topics as the classification of drugs and why students take drugs will be discussed, along with the physical and psychological effects drugs have on the body.

PHYSICAL EDUCATION / HEALTH – GRADE 10 ***DRIVER'S EDUCATION, CPR/FIRST AID***

Through exercise, team sports, and Fitness Gram testing, the students will get a chance to develop their skeletal and cardiovascular systems. Certain activities will offer the students social contacts that help to foster social growth and the development of a positive self-image. Students will sign up for the Physical Education activity of their choice and they will take four activities in a term. Physical Education activities are based on student interests.

Students are instructed in safe driving situations through speakers, text, films and other visual aids. Preparation for the State Test is included in the curriculum and is administered to the students on the last day of the driver's education unit. The CPR/First Aid course is designed to prepare the students to react quickly and accurately in the event of an emergency.

PHYSICAL EDUCATION DEPARTMENT ELECTIVES

HONORS CONCEPTS OF ATHLETIC TRAINING

Prerequisites* *Min grade of B in Biology and B in Anatomy and Physiology *Open to students in Grades 11 and 12

For students intending to pursue a career in the Health Profession such as Athletic Training, Physical Therapy, Occupational Therapy, Nutritionist, or Physical Education/Health Instructor, this course will provide content and practice of anatomy, evaluation and treatment of specific injuries, rehabilitation exercises, and taping techniques for the treatment and prevention of injuries.

PHYSICAL EDUCATION – Grades 11-12

Through exercise, team sports, and Fitness Gram testing, the students will get a chance to develop their skeletal and cardiovascular systems. Certain activities will offer the students social contacts that help to foster social growth and the development of a positive self-image. Students will sign up for the Physical Education activity of their choice and they will take four activities in a term. Activities will include both Team Sports (softball, basketball, floor hockey, eclipse ball, volleyball, soccer, kickball, weight room, ultimate frisbee, lacrosse, football) and lifetime sports (walking/jogging, pickleball, meditation, bowling, golf, badminton, weight room, ultimate Frisbee, table tennis, basketball, volleyball). Physical Education activities are based on student interests.

STRENGTH AND CONDITIONING

Open to students in Grades 10-12

This course is designed to give students the opportunity to learn weight training concepts and techniques used for obtaining optimal physical fitness. Students will benefit from comprehensive weight training and cardiorespiratory endurance activities. Students will learn the fundamentals of weight training, strength training, and overall fitness training and conditioning. Students will be empowered to make wise choices, meet challenges, and develop positive behaviors in fitness, wellness, and movement, for a lifetime.

SCIENCE

BIOLOGY AND LAB

This is the study of all living things and life processes. Students will study the major concepts and principles of general biology. Topics will include lab safety, the scientific method, the community of living things, cell structure and function, cell division, cell environment, microscopes (use and care), cell biochemistry, ATP, respiration, photosynthesis, genetics, DNA, RNA and protein synthesis, evolution, and classification.

HONORS BIOLOGY AND LAB

Prerequisites* *Open to students in Grades 9 or Grade 10

***Qualifying Score on Placement Test *Curriculum Coordinator approval**

This is the study of living things and life processes. Students will study the major concepts and principles of biology. Students will complete topics on lab safety, the scientific method, ecology and the communities of living things, cell biochemistry, and properties of water cell structure and function, cell transport and communication, microscopes (use and care), ATP, cellular respiration, leaf structure, photosynthesis, cell division, heredity, DNA, reproduction, and evolution.

ANATOMY & PHYSIOLOGY AND LAB

Prerequisite* * Open to students in Grades 11 and 12 Minimum grade of B in Biology and B in Chemistry

This course explores the anatomy and structure of the human body and each body part according to its body system and function. The main systems of study include integumentary, skeletal, muscular, circulatory, nervous, respiratory, digestive, urinary, reproductive, endocrine, and lymphatic systems. In addition to identifying the main anatomical features of the body, students will learn anatomical terminology and the structure of cells and tissues within the body. The material learned in this course can be applied to medical field careers, health and fitness careers and biological research careers.

ENVIRONMENTAL SCIENCE AND LAB

Prerequisite* *Open to students in Grades 10, 11 and 12

***Biology and Lab**

This course will introduce major ecological concepts and environmental issues that affect the world. Included will be topics on international policies, environmental policies, law and the environment, cycles of nature, the water cycle, water use, water pollution, acid rain, air pollution, climate change, global warming, population growth and control. Students will study the relationships among organisms, their environment, and how pollution affects this relationship. Emphasis will be placed on New Jersey Environmental issues.

MARINE BIOLOGY AND LAB

Prerequisite* *Open to students in Grades 11 and 12 *Biology and Lab

This course will introduce the living organisms of the ocean and their relationship to the chemical, physical and geological nature of the oceans. Students will study units on the living organisms, the taxa of the organisms, along with tides, waves, currents, ocean floor geology and water chemistry.

CHEMISTRY AND LAB

Prerequisites* Open to grades 10, 11, and 12 *Biology and Lab minimum grade of B or better; minimum grade of B in Algebra I or minimum grade of B+ or higher in both Algebra 1 A and Algebra 1 B.

This course is for students who have demonstrated adequate math skills. Students will study lab safety, the properties and structure of matter, including topics such as chemical and physical properties and changes in matter, naming and writing chemical formulas, writing and balancing chemical equations, history of chemistry, atomic structure, quantum theory, periodic law, the mole, stoichiometry, bonding, kinetic theory, and gas laws.

HONORS CHEMISTRY AND LAB

Prerequisites* *Grade 9: Honors Grade 9 Math (may be concurrent) and Curriculum Coordinator approval
***Grade 10: Hon Biology/Hon Math, grade of B- in each, or A in Biology and Algebra 1 and Curr. Coord. approval.**

This course is for students who have demonstrated good math and science skills, and will cover topics including the history of chemistry, and the fundamental properties of matter, beginning with units of matter, atoms, and proceeding to how they behave. Students will complete units on lab safety, matter, atoms, and proceeding to how they behave, along with units on matter and energy, chemical shorthand and nomenclature, bonding, stoichiometry and the mole, atomic structure, quantum mechanics, periodic law, kinetic theory, and descriptive chemistry of the elements.

DUAL ENROLLMENT ANATOMY & PHYSIOLOGY AND LAB

Dual enrollment course with Seton Hall University. The cooperating college/university will determine eligibility for college credit and assess an additional fee for the credit.
Prerequisite* * Open to students in Grades 11 and 12 *Honors Biology with minimum grade of B or Biology with a minimum grade of A and Honors Chemistry with a minimum grade of B and teacher recommendation or Chemistry with a minimum grade of A and Curriculum Coordinator approval.

This is an advanced course that provides an in-depth study of the human body. Included will be a survey of the history of Anatomy and Physiology, a review of the structure and function of the cell, anatomical terminology, general body structure, epithelial tissue, connective tissue, skeleton and joints, muscle tissue, major muscles, nerve tissue, nervous system, endocrine system, blood, immunity, circulatory system, respiratory system, digestive system, reproductive, and urinary system. Lab skills are emphasized.

PHYSICS AND LAB

Prerequisites* *Algebra II/Trigonometry (may be concurrent); minimum grade of B or Algebra 2 with a B or higher.

The course will cover a mathematical investigation into the natural laws which govern matter and energy. Emphasis is placed on mathematical deductions, forms of energy, properties of matter and energy and their interrelationships. Students will complete units on motion, dynamics, universal gravitation, work and power, energy, thermodynamics, waves and energy, light, sound, mirrors and lenses, electricity, and magnetism.

HONORS PHYSICS AND LAB

Prerequisites* Hon Biology and/or AP Bio, Honors Geometry/Trig, B or better in each, or Algebra II/Trig with A.

This course is typically for juniors and seniors. It will involve an in-depth study of mechanics, dynamics, thermodynamics, waves, sound, light, optics, electricity and magnetism, in addition to advanced lab work reinforcing concepts presented in lecture.

AP BIOLOGY AND LAB

***Grade 10: Minimum grade of B or higher in Honors Chemistry**
***Grade 11 and 12: B in Honors Biology or A in Biology and B or Higher in Honors Chemistry**
*** Teacher Recommendation**

This course will provide a learning environment that enables students to develop a solid understanding of the principle concepts in Biology, which are then synthesized into major concepts and themes. The Big Ideas of: 1) that process of evolution drives diversity and unity of life, 2) that biological systems utilize free energy and molecular building blocks to grow, reproduce and maintain dynamic homeostasis, 3) that Living systems store, retrieve, transmit and respond to information essential to life processes, and 4) that biological systems interact and these systems and their interactions possess complex properties will be studied in depth. Emphasis will be placed on the corresponding laboratory work for each topic: molecular biology, cytology, genetics, evolution, heredity, classification, populations and ecology. All students will be required to take the A.P. Biology Exam.

AP CHEMISTRY AND LAB

Prerequisites* *Grades 11 and 12 * B in Honors Biology, Honors Chemistry, and Honors Algebra II/Trig (may be concurrent)

***Teacher recommendation**

This course is available to juniors and seniors. AP Chemistry is a college-level chemistry course in which topics covered in Honors Chemistry are pursued in greater depth as well as topics which are not covered in Honors Chemistry. Emphasis is placed on chemical calculations and mathematical formulations of principles. In-depth coverage of the Big Ideas will also be emphasized: 1) the chemical elements are fundamental building materials of matter and all matter can be understood in terms of arrangements of atoms, 2) the chemical and physical properties of materials can be explained by the structure and arrangements of atoms, ions or molecules and the forces between them, 3) the changes in matter involve the rearrangement of atoms or transfer of electrons, 4) the rates of chemical reactions are determined by details of molecular collisions, 5) the laws of thermodynamics as the essential role of energy and explain and predict the direction of changes in matter , and 6) that any bond or intermolecular attraction that can be formed can also be broken. The laboratory work is of a qualitative and quantitative nature, requiring research and implementation by the student. All students will be required to take the AP Chemistry Exam.

AP PHYSICS 1 AND LAB

Prerequisites*Open to grades 11 and 12 B in Honors Algebra II/Trig and B in Honors Biology and Honors Chemistry**Teacher recommendation**

AP Physics 1 is an algebra-based, introductory college-level physics course. Students cultivate their understanding of physics through inquiry-based investigations as they explore these topics: kinematics, dynamics, circular motion and gravitation, energy, momentum, simple harmonic motion, torque and rotational motion, electric charge and electric force, DC circuits, and mechanical waves and sound. All students in AP Physics 1 are required to take the AP exam.

FORENSICS AND LAB

Prerequisites* *Open to Grade 11 and 12

***Minimum grade of B in Biology and Chemistry and minimum of B- in Plane Geo/Trig.**

Forensic science integrates science, math, and written communication by utilizing real-life applications and case studies. Topics covered will include collection and handling of specimens and examination of trace evidence (hair, fibers, soil, pollen and glass) fingerprints, blood and blood spatter examination, DNA, handwriting and tool mark analysis, impressions; ballistics; forensic anthropology; determination of the cause and time of death. Lab work is an integral part of the course.

SOCIAL STUDIES

WORLD HISTORY/CULTURES

This course will examine our world's history from the earliest civilizations through the present day. This course is designed to develop analytical and critical thinking skills as students relate the physical geography of the globe to the cultural, economic, political, historical, and social aspects of human activity. Current events are incorporated on a weekly basis.

HONORS WORLD HISTORY/CULTURES

Prerequisites* *Qualifying Score on Placement Test

***Curriculum Coordinator approval**

This course will examine world history from the earliest civilizations through the present day. This course is designed to develop analytical and critical thinking skills as students examine events in world history and the inter-relationship of world cultures. Emphasis will be placed on cause-and-effect relationships and developing the ability to present ideas clearly and persuasively in a written format. Current events are incorporated on a weekly basis.

US HISTORY I

Prerequisites* Successful completion of World History or Honors World History

This course will examine our nation's history from the period of Colonization to the period of American Diplomacy under President Roosevelt. This course is designed to develop analytical and critical thinking skills as students relate the cultural, economic, political, historical, geographical, and social aspects of human activity. Current events are incorporated on a weekly basis.

HONORS US HISTORY I

Prerequisites* *Successful completion of World History with a minimum grade of A- or Honors World History with a minimum grade of B.

***Teacher recommendation**

This course will examine our nation's history from the period of Colonization to the period of American Diplomacy under President Roosevelt. This course is designed to develop analytical and critical thinking skills as students examine events of our nation's history and the inter-relationship of our nation's cultures. Emphasis will be placed on cause-and-effect relationships and developing the ability to present ideas clearly and persuasively in written form. Current events are incorporated on a weekly basis.

US HISTORY II

Prerequisite* *Successful completion of U.S. History I or Honors US I

This course will examine our nation's history from the Progressive Movement to the present day. This course is designed to develop analytical and critical thinking skills as students relate the cultural, economic, political, historical, geographical, and social aspects of human activity. Current events are incorporated on a weekly basis.

HONORS US HISTORY II

Prerequisites* *Successful completion of U.S. History I with a minimum grade of A- or Honors U.S. History I with a minimum grade of B *Teacher recommendation

This course will examine our nation's history from the Progressive Movement to the present day. This course is designed to develop analytical and critical thinking skills as students examine the events of our nation's history and the inter-relationship of our nation's cultures**.** Emphasis will be placed on cause-and-effect relationships and developing the ability to present ideas clearly and persuasively in written form. Current events are incorporated on a weekly basis.

DUAL ENROLLMENT AMERICAN CIVILIZATION I

Dual Enrollment with Brookdale Community College (B.C.C.)
***Students must take the B.C.C. Placement test and earn a qualifying score for acceptance into the course or meet minimum SAT requirement; qualifying score and minimum SAT or ACT requirement determined by B.C.C.**
The cooperating college will determine eligibility for college credit and assess an additional fee for the credit.
Prerequisites *Open to students in grades 11 and 12

Students will identify and discuss problems, events, and personalities in American history which have influenced the origins and growth of the Republic from the colonial period until the Civil War (1861). History will be viewed from many perspectives.

DUAL ENROLLMENT AMERICAN CIVILIZATION II

Dual Enrollment with Brookdale Community College (B.C.C.)
The cooperating college/university will determine eligibility for college credit & assess an additional fee for the credit.
***Students must take the B.C.C. Placement Test and earn a qualifying score for acceptance into the course or meet minimum SAT requirement; qualifying score and minimum SAT or ACT requirement determined by B.C.C.**
Prerequisites *Open to students in grades 11 and 12

Students will demonstrate an understanding of personalities, events, and problems in American history from the Civil War until World War II.

DUAL ENROLLMENT CONTEMPORARY WORLD HISTORY

Dual Enrollment with Brookdale Community College (B.C.C.)
The cooperating college/university will determine eligibility for college credit & assess an additional fee for the credit.
***Students must take the B.C.C. Placement Test and earn a qualifying score for acceptance into the course or meet minimum SAT requirement; qualifying score and minimum SAT or ACT requirement determined by B**.C.C.
Prerequisites* *Open to students in grades 11 and 12

This course is designed to provide students with the framework of the contemporary world, which will be discussed by examining key historical developments since 1945, including the Cold War and the fall of communism, as well and the independence movements and revolutions in Asia, Africa, Latin America, and the Middle East. Relying on a variety of historical readings and current accounts, emphasis will be placed on understanding the historical readings and contemporary issues such as international conflict, the environment, human and natural resources, and global, cultural, and economic trends.

AP US HISTORY

Prerequisites*
Minimum grade of B in AP World History, or minimum grade of A in Honors World History, and Teacher Recommendation.
Grade 11 and 12: Minimum grade of A- in Honors U.S. History I, or a minimum grade of A in U.S. History I; plus a minimum PSAT evidence based reading and writing score of 560 or SAT evidence-based reading and writing score of 560 or Pre-ACT or ACT score of 44 in English and reading
***Curriculum Coordinator approval**

The period from Colonial America to the present day will be covered in depth. Students will be required to complete weekly reading assignments. Skills in the critical analysis of primary source documents, the interpretation of historical changes the ability to arrive at conclusions on the basis of informed judgment and to present ideas clearly and persuasively in essay format will be strengthened. Complete in-depth research paper required. The Advanced Placement Test will be taken in May.

AP US GOVERNMENT
***Prerequisites**
Grade 10: Honors World History and Honors English I, minimum grade of A-
***Grades 11 and 12: Honors US I and/or Honors US II, or AP World History minimum grade of B or better or AP US History with a minimum grade of B or better; plus, a minimum PSAT evidence-based reading and writing score of 560 or SAT score of 560 or Pre-ACT or ACT score of 44 in English and reading**
***Curriculum Coordinator approval**
This course gives students an analytical perspective on government and politics in the United States. It includes both the study of general concepts used to interpret US politics and the analysis of specific examples. Students will examine the constitutional basis of government, political beliefs and behaviors, mass media, institutions of government, and civil rights and liberties. The Advanced Placement Test will be taken in lieu of the usual final exam.

SOCIAL STUDIES ELECTIVES

HONORS INTRODUCTION TO LAW
Prerequisites* *Grade 9- Pre-Law Academy student only
Grades 11 and 12: Successful completion of Honors US I with a minimum grade of B or US I with a minimum grade of A-
The purpose of the course is to provide law-related education, practical information and problem-solving for legal survival in modern society. This course will provide students with an introduction to law and the legal system**.** Emphasis will be placed on criminal law and the criminal justice process, juvenile justice, civil law, consumer and housing law, and family law. Analysis of current events and court cases will take place on a weekly basis.

PSYCHOLOGY
Prerequisites * *Open to all students in Grades 10, 11, and 12
This course will provide the high school student with a comprehensive introductory Psychology course similar to what may be expected by a college freshman. This course will acquaint the student with the basic theories and doctrines of modern psychology along with its practical application and techniques. This course is recommended for students who wish to pursue a career in the fields of mental health, social work, medicine, education, and physical and occupational therapy.

SOCIOLOGY
Prerequisites* *Open to students in Grades 10, 11, and 12
Sociology is the science of society, the study of the social order. Upon completion of this course, students will be familiar with the concepts and many facets of socialization, social institutions, social stratification, and changes in the social order.

DUAL ENROLLMENT PSYCHOLOGY 105:
Prerequisites* (Dual enrollment with Brookdale Community College)
Brookdale Community College will determine eligibility for college credit and assess an additional fee for the credit. Students must take and pass the Brookdale Community College Placement Test offered by Brookdale Community College at SJVHS or meet the minimum SAT or ACT requirement determined by Brookdale Community College.
***A grade of A in most recent history course**
***Open to students in Grades 11 and 12**
Students will demonstrate an understanding of Psychology as a science. They will complete exercises covering fundamental areas of the discipline: history of psychology, scientific method, sensation and perception, learning and memory, and IQ.

WORLD LANGUAGES

World Languages may be selected in any year. Incoming freshmen may be granted advanced standing in Italian or Spanish, upon recommendation from their eighth grade World Language teacher and approval from SJVHS Department Chair.

ITALIAN I

Italian I is a course designed to develop basic language competence in the four areas of listening, speaking, reading and writing. Students will also gain an appreciation and knowledge of the cultural, geographical and social characteristics of Italy and its regions, providing an opportunity to further explore the language and culture. The creative use of technology, interactive activities, TPR lessons, digital textbook activities as well as the regular use of props, games and videos will be utilized on a daily basis for the achievement of these goals.

ITALIAN II

Prerequisite* *Italian I with a minimum grade of C

Italian II builds upon skills learned in Italian I and is designed towards more advanced listening, speaking, reading and writing skills. More advanced structures are presented through various oral and written exercises, directed dialogue and abbreviated readings. It is also designed to provide a greater cultural introspection emphasizing the immigrant experience and honoring the traditions of old world Italy.

ITALIAN III

Prerequisite* *Italian II with a minimum grade of B

Students of Italian III will further expand the listening, speaking, reading and writing skills achieved in Italian I and II. In this course, students will gain a greater understanding of vocabulary and grammar structures they have previously learned as they embark on a deeper cultural experience allowing them to analyze how technology and the popularity of American culture have affected the traditions, customs and old-world values of Italy in the 21st century.

HONORS ITALIAN IV

Prerequisites* *Italian III with a minimum grade of B and *Teacher recommendation

This college Intermediate Italian Level I course will enhance students' abilities to speak, listen, read, and write in Italian. Students will also obtain a greater understanding of Italian cultural topics through films, music, and selected readings of medieval and Renaissance literary works.

HONORS ITALIAN V

Prerequisites* *Honors Italian IV with a minimum grade of B and *Teacher recommendation

This college Intermediate Italian Level I course will enhance students' abilities to speak, listen, read, and write in Italian. Advanced vocabulary and grammatical structures will be integrated into oral conversations and written compositions to refine Italian language skills. The course will be taught entirely in Italian.

SPANISH I

This course is directed toward the development of language competence in Spanish. Structure as well as culture are presented through various oral and written exercises, directed dialogue and all four basic skills: listening, speaking, reading and writing.

SPANISH II

Prerequisite* *Spanish I with a minimum grade of C

In this course more complex grammatical structures are studied. Emphasis is placed on the attainment of oral fluency and good pronunciation, while introducing readings rich in cultural content.

SPANISH III

Prerequisites* *Spanish II with a minimum grade of B

In this course, full communication in Spanish is developed. Instruction includes the integration of listening, speaking, reading, and writing skills. The introduction of advanced vocabulary and grammar enhances the student's ability to communicate.

HONORS SPANISH IV

Prerequisites* *Spanish III with a minimum grade of B and ***Teacher recommendation**

Students will further expand the listening, speaking, reading and writing skills achieved in Spanish III. In this course, students will gain a greater understanding of the vocabulary and grammar structures they have previously learned as they embark on a deeper cultural experience allowing them to analyze and reflect on diverse human values and perspectives that may differ from their own.

HONORS SPANISH V

Prerequisites* *Honors Spanish IV with a minimum grade of B and *Teacher recommendation

This course aims to extend proficiency in language skills to an advanced level. Extensive reading of varied materials and topics, advanced vocabulary, composition and performing orally with facility will be the focus. The course will be fully taught in Spanish.

EARLY COLLEGE ACADEMY COURSES

Students must pass the Brookdale Community College Placement Test administered by Brookdale Community College before a student can take any of the Early College Academy courses listed below. ACAD College Studies is the only course that can be taken before passing the Brookdale Community College Placement Test.

(ECA DE - Early College Academy Dual Enrollment)

ENGLISH

ECA DE English Comp I
*__Open only to grade 10 Early College Academy students__
English Comp I is an introductory writing course in which students compose and revise narrative and expository essays and prepare for the study of literature by using writing to analyze texts. Through a writer's workshop approach, students explore the writing process, respond to a variety of texts, and learn to communicate their ideas effectively and confidently in writing.

ECA DE English Comp II
***Open only to grade 11 Early College Academy students**
This course teaches techniques and strategies for conducting research and for writing effectively on a range of subjects. Students learn to write and revise persuasive papers using critical thinking skills and information they find to support an assertion or position. Related reasoning and support for papers necessitates inquiry into social ethics and moral situations. Students learn to analyze and process this information using foundational principles of logic, ethical reasoning, and social morals. Students also learn and demonstrate proper documentation style.

ECA DE English Short Story
***Open only to grade 10 Early College Academy students**
Students will read and discuss short stories drawn from the literature of many cultures and countries. They will analyze the stories for theme, form, relationship to their own lives, and reflection of various cultures. The relevance of these short stories for the modern reader will be examined.

MATHEMATICS

ECA DE Pre-Calc
***Open only to grade 10 Early College Academy students**
This course prepares students for the study of calculus. Problems are approached from a variety of perspectives, including graphical, numerical, verbal, and algebraic. The topics require students to exhibit critical thinking skills as they analyze a variety of problems, create functions from a problem situation, and solve optimization problems using those functions. Students use their calculators and their understanding of the behavior of functions to perform regression analysis on data sets, including linear, quadratic, exponential, logistic, and sinusoidal models. Types of functions studied include rational, inverse trigonometric, exponential, and logarithmic. Parametric equations are introduced and used to define circles, ellipses, and hyperbolas. A graphing calculator is required; the specific model is determined by the department.

ECA DE Calculus I (Optional for A.A. in Social Sciences; required for A.S. in Computer Sciences)

***Open only to grade 11 Early College Academy students who have earned a C or higher in ECA DE Pre-Calc**
This is a first semester scientific calculus course, and the topics include limits, continuity, derivatives and their applications, and integrals, including the Fundamental Theorems. Algebraic, trigonometric, inverse trigonometric, exponential, and logarithmic functions will be studied. Problems are approached from a variety of perspectives, including graphical, numerical, verbal, and algebraic. Computer software will be used extensively in class to gain a greater understanding of concepts as well as to consider non-routine problems.

ECA DE STATISTICS

Dual enrollment with Brookdale Community College

Prerequisites* *Brookdale Community College will determine eligibility for college credit and assess an additional fee for the credit. Students must pass Brookdale Community College Placement Test to meet minimum SAT or ACT requirement determined by Brookdale Community College.

***Open to students in grades 11 and 12, B- or higher in Honors Algebra 2/Trig, or Algebra 2/Trig with an A or higher AND Honors English II with a B or English II with A or higher.**

This course begins with descriptive statistics, including graphical representations of data and measures of central tendency, position and variation. Basic probability concepts lead to the study of the binomial and normal probability distributions. The course continues with the Central Limit Theorem and its use in the development of estimation through confidence intervals and hypothesis testing. The course concludes with Chi Squares tests and linear correlation and regression. Computer software will be used in class to gain a greater understanding of underlying concepts.

SOCIAL STUDIES

ECA DE College Studies

***Open only to grade 9 Early College Academy students**

Students learn to identify and practice a variety of skills and behaviors that can foster success in college and work. Students will explore their values and academic goals through individual projects, class exercises, and group interaction. This course will be taken in the student's first term at Saint John Vianney High School.

ECA DE US History I

***Open only to grade 11 Early College Academy students**

Students will identify and discuss problems, events and personalities in American History which have influenced the origins and growth of the Republic from the colonial period until the Civil War (1861). History will be viewed from many perspectives.

ECA DE US History II

***Open only to grade 11 Early College Academy students who have completed ECA DE US History I**

Students will demonstrate an understanding of personalities, events and problems in American history from the Civil War until World War II.

ECA DE PSYCHOLOGY 106:

***Open only to grade 11 Early College Academy students**

Students will demonstrate an understanding of Psychology as an applied science. They will complete exercises covering the relevant areas: social and interpersonal behavior, motivation, emotion, stress, health and coping, psychological disorders, personality theories and psychotherapies. Students will gain the ability to analyze a variety of theoretical perspectives from critical and diverse points of view while applying them to problems of daily living.

ECA DE Contemporary World History

This course is designed to provide students with the framework of the contemporary world which will be discussed by examining key historical developments since 1945, including the Cold War and the fall of communism, as well as the independence movements and revolutions in Asia, Africa, Latin America, and the Middle East. Relying on a variety of historical readings and current accounts, emphasis will be placed on understanding the historical readings and contemporary issues such as international conflict, the environment, human and natural resources, and global cultural and economic trends.

WORLD LANGUAGES

ECA DE Spanish I
***Open only to grade 9 Early College Academy students**
This course is designed for students with no previous knowledge, or very limited knowledge, of the Spanish language. Strong emphasis will be placed on acquiring conversational and comprehension skills, using practical and interesting situational materials that will stress both language and culture. Grammatical patterns and syntax will be introduced with the aim that students read and write what they have learned to say and understand. **(Course is not open to native Spanish speakers.)**

ECA DE Spanish II
***Open only to grade 10 Early College Academy students with a grade of C or higher in ECA DE Spanish I or teacher recommendation.**
In this course students will build upon skills learned in ACAD Spanish I and will be able to express themselves in a variety of new and more complex situations in Spanish. **(Course is not open to native Spanish speakers.)**

COMPUTER SCIENCE

ECA DE Computer Logic and Design
***Open only to grade 9 Early College Academy students**
This course provides students with an introduction to computer systems. The topics include computer components, computer programming logic using design structures, developing algorithms, coding programs, and debugging program code.

ECA DE Database Concepts
Dual Enrollment with Brookdale Community College
The cooperating college will determine eligibility for college credit and assess an additional fee for the credit.
Prerequisite* * Completion of ECA DE Computer Logic and Design
***Open to students in grades 11 and 12**
This course covers how to analyze data and effectively design databases. The fundamental concepts of relational database design, implementation, and administration are presented. Design concepts include entity relationship modeling and normalization. The relation design is developed using a modeling tool. Database implementation and administration are covered through basic and advanced SQL.

ECA DE Programming I
***Open to Early College Academy students in grade 10 and successful completion of ECA DE Comp Logic and Design with a C or higher.**
The student will be able to analyze a variety of problems, develop algorithms to solve those problems and code solutions using JAVA. The fundamentals of software development, which includes logic, control structures, arrays, methods, classes, documentation techniques, testing, and debugging, are covered. Assignments give students hands-on experience to design, write, test, debug and edit their program code using an integrated development.

ECA DE Programming II
***Open to Early College Academy students in grade 10 and successful completion of ECA DE Programming I with a C or higher.**
This course continues the development of problem-solving, logical thinking and object-oriented programming techniques using JAVA. Topics and techniques covered include design features from objects, classes and objects as encapsulation tools, inheritance and hierarchies among classes, polymorphism, exception handling and GUI/event-driven programming. Assignments give students hands-on experience to design, write, test, debug and edit their program code using an integrated development environment.

ECA DE System Analysis and Design

***Open to Early College Academy students in grade 11 and successful completion of ECA DE Comp Logic and Design, ECA DE Programming I, and ACAD Programming II**

Students will acquire working knowledge of principles, methods, and procedures required to develop a computerized information system. They will be able to identify, describe, and perform the various tasks associated with computer system development, particularly in systems planning, management, analysis and design, implementation and support.

*****Saint John Vianney High School reserves the right to make any corrections, additions, or deletions to the Course of Studies Guide in accordance with any of the following: Diocese of Trenton, New Jersey Department of Education, the Saint John Vianney Administration, the Saint John Vianney Curriculum Committee, Brookdale Community College, Georgian Court University, University of Delaware, and Seton Hall University.*****