



Bishop O'Connell High School
Course Catalog
2026-2027

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MISSION STATEMENT

Our mission is to provide students with an education rooted in the life of Christ and to foster the pursuit of excellence in the whole person.

GRADUATION REQUIREMENTS

Bishop O’Connell High School offers a curriculum that is designed to prepare students for admission to leading colleges and universities.

For graduation, Bishop O’Connell requires a **minimum of 26 credits** to be distributed as follows:

SUBJECT	REQUIRED CREDITS
Theology	4
English	4
Social Studies	4
Mathematics	3 (4 recommended)
Science	3 (4 recommended)
World Language	2 (4 recommended)
Health/ Physical Education	1.5 (2 recommended)
Fine Arts	0.5 (2 recommended)
Technology/Business	0.5 (2 recommended)
Additional Courses/Electives	3.5

Credit earned in 8th grade for subjects such as Spanish 1 or Algebra 1 may appear on the high school transcript and qualify a student for advanced study after a qualifying test has established proficiency. This, however, does not reduce the overall requirement of 26 units to be earned during grades 9-12.

In planning their course of studies, student-athletes are reminded of the need to meet **NCAA core course requirements** for athletic participation at the college level.

Seniors must pass all classes to receive a diploma, including those that do not apply to graduation requirements. Seniors with failures receive a diploma when credit has been earned for failed classes.

Each year, students are required to participate in at least one **retreat** and provide appropriate **Christian service**. These programs are coordinated by Campus Ministry.

REGISTERING FOR CLASSES

This guide is published to help students make responsible decisions regarding next year's academic program.

Students select seven (7) credits each year. When planning course selection, students with their parents and their counselors should carefully review prerequisites and grade levels listed with each class, then select classes consistent with their abilities and interest, past achievements and future goals, matching the admissions requirement of the colleges and universities they plan to consider.

The school reserves the right to cancel or postpone courses for which inadequate enrollment, lack of physical facilities, or unavailability of teacher personnel necessitates such action. The Dean of Academics reserves the right to adjust selection depending on pupil ability, past performance or teacher recommendation.

Drop/Add procedures common at the college level do not apply. Students must seek the approval of their teacher and/or counselor to request a change in scheduled classes.

All students in AP courses are required to take the corresponding examination in May.

Muller Academic Support – Students with documented learning disabilities may apply for acceptance into this program which provides a daily class period of learning support and assists in providing student accommodations. *Additional tuition is assessed for this program.*

Expanded Services – Students with cognitive and intellectual disabilities may apply for admission under Expanded Services, which allows them to grow academically, socially and spiritually with their peers in a Catholic high school environment. More information about Expanded Services may be found on page 65.

Sample Catalog Codes

2300 FRENCH 3 HONORS 10-12 YR 1.0cr

2300 - course number

French 3 Honors – course name

10-12 – course open to grades 10-12

YR – course term (YR – full year, SEM – semester)









1.0 cr – credit value of course

NCAA – NCAA approved core courses for student-athletes

BISHOP O'CONNELL HIGH SCHOOL

Course Map

Courses marked with* are offered at both the college-prep and honors level.

	 THEOLOGY 4 CREDITS	 MATHEMATICS 3 CREDITS (4 RECOMMENDED)	 ENGLISH 4 CREDITS
 GRADE 12	Living as a Disciple of Christ The Church in the 20th Century Sharing the Faith in the World Today Witnessing the Gospel Theology of the Body	AP Calculus BC AP Calculus AB Calculus Honors AP Pre-Calculus AP Statistics Statistics Honors Multivariable Calculus Linear Algebra Pre-Calculus Honors Pre-Calculus College Math Topics Statistics and Applied Math	AP English Literature English 4*
 GRADE 11	Theology 3: Sacraments Theology 3: Morality	AP Calculus AB Calculus Honors AP Pre-Calculus Pre-Calculus Honors Pre-Calculus College Math Topics Algebra 2/Trig Honors Algebra 2/Trig Algebra 2	AP English Language and Composition English 3*
 GRADE 10	Theology 2: Jesus, the Redeemer Theology 2: The Church	Geometry Honors Geometry/A Geometry AP Pre-Calculus Pre-Calculus Honors Algebra 2/Trig Honors Algebra 2/Trig	English 2*
 GRADE 9	Theology 1: Jesus in Scripture Theology 1: Old Testament	Algebra 2/Trig Honors Algebra 2/Trig Algebra 1	English 1*
 DEPARTMENTAL ELECTIVES			Elective courses available in Writing, World Literature, Journalism, Humanities and more

ELECTIVES	 FINE ARTS 0.5 CREDITS	 HEALTH & PE 1.5 CREDITS	 TECH & BUSINESS 0.5 TECH CREDITS
 SCIENCE 3 CREDITS (4 RECOMMENDED)	 SOCIAL STUDIES 4 CREDITS	 WORLD LANGUAGES 2 CREDITS (4 RECOMMENDED)	
AP Physics C AP Physics 1 Physics* AP Biology AP Chemistry AP Environmental Science Ecology Anatomy & Physiology* Genetics Honors Faith & Science Honors Biotechnology & Microbiology Honors Organic Chemistry Honors	AP U.S. Government and Politics U.S. Government with Foreign Affairs* U.S. Government with Advocacy and Public Policy* U.S. Government with Social Justice AP Comparative Government and Politics AP Human Geography AP Economics AP Art History AP Psychology Psychology	AP French Language AP Latin AP Spanish Language AP Spanish Literature Spanish 5 Honors Second, Third* or Fourth* Year of World Language American Sign Language 2	
AP Physics 1 Physics* AP Biology AP Chemistry AP Environmental Science Ecology Anatomy & Physiology* Genetics Honors Faith & Science Honors Biotechnology & Microbiology Honors Organic Chemistry Honors Chemistry*	AP U.S. History U.S. and Virginia History* AP Human Geography AP Economics AP Art History AP Psychology Psychology <i>Additional Semester Electives Offered for Grades 11-12</i>	AP Latin AP Spanish Language Second, Third* or Fourth* year of World Language American Sign Language 1 or 2	
AP Biology Chemistry* Intro to Engineering Biology 1*	AP European History European History Honors World Geography Fundamentals of Economics African-American History Poverty and the Developing World World Religions and Social Customs	First, Second, or Third Year of World Language American Sign Language 1	
Biology 1*	World History*	First, Second, or Third Year of World Language	
Elective courses available in Engineering and Independent Research	Elective courses available in Philosophy, 21st Century Issues, and more	Spanish Heritage Program available at levels 3 & 4 <i>Dual Credit may be an option for level 4 classes</i>	

THEOLOGY

The faculty members of the Bishop O'Connell theology department aspire to provide students with a deep knowledge of and appreciation for the tenets of the Catholic faith. They also work to help students develop a genuine and personal relationship with Jesus Christ and comprehend religion as what binds us to God, giving to Him what is His due. Therefore, each theology course encourages and helps students to develop a close relationship with God through prayer and service. With the dual focus of education and formation, the theology program fosters involvement in service to others and concern for the poor and marginalized. The theology curriculum draws on the National Framework for High School Religion, published by the U.S. Conference of Catholic Bishops.

Please Note All students are required to have a NABRE translation of the Catholic Bible beginning in 9th grade, a YOUCAT Catechism in 10th grade, and a Catechism of the Catholic Church for grades 11 and 12. These are in addition to the textbook(s) and workbook(s) required for each course.

9105 THEOLOGY 1: JESUS IN SCRIPTURE **9 SEM .5 cr**

In this semester course students encounter the mystery and Person of Jesus Christ, the Living Word of God, the Second Person of the Blessed Trinity. By reflecting on Jesus as God's ultimate Revelation of Himself, students prepare to hear God's call for them to holiness and God's plan for their lives.

9110 THEOLOGY 1: OLD TESTAMENT **9 SEM .5 cr**

In this semester course students encounter the living Word of God, Jesus Christ, through the study of Sacred Scripture. Students learn how to read the Bible within the heart of the Church through the senses of Scripture and by following God's providential plan through His covenants with humanity, from Adam to Christ. Students are encouraged to know and love Jesus Christ more personally.

9210 THEOLOGY 2: JESUS THE REDEEMER **10 SEM .5 cr**

This semester course helps students understand how God, through his Son Jesus Christ, redeems the world. Students will learn how the Father laid out from the beginning a plan for salvation, culminating in Christ's salvific sacrifice on the Cross. Emphasis is placed on how God has planned for each person to share eternal happiness with Him.

9215 THEOLOGY 2: THE CHURCH **10 SEM .5 cr**

The purpose of this semester course is to show how the Mission of Jesus Christ continues in the Church and how in and through the Church individuals encounter the living Jesus Christ. In the context of understanding the grace of living in community, students will study how the Church was founded by Christ through the apostles and is sustained by Christ in each generation through the Holy Spirit. Students will come to know that the Church is the living Body of Christ today with both divine and human elements. Students will learn about the sacred nature of the Church and become more aware of their own role as members of the Church.

9310 THEOLOGY 3: SACRAMENTS**11 SEM .5 cr**

This semester course begins with a study of Christian anthropology which considers what it means to be a human person made in God's image and, in light of this, the meanings of freedom, love, and happiness. The Genesis accounts of Creation and the Fall are then reviewed from this perspective: the human person as a main character in the larger story of salvation. This background provides a context for understanding the role of the sacraments in salvation history, as the means by which Jesus Christ dispenses the fruits of the Paschal Mystery to people of all times and places. Students will examine each of the sacraments as a visible sign that efficaciously communicates the invisible grace necessary for humans to reach their destiny: to grow in freedom and love so as to be more and more like Christ in this life, and to enjoy supreme happiness in union with God forever in Heaven.

9315 THEOLOGY 3: MORALITY**11 SEM .5 cr**

This semester course will introduce and explain the moral teachings of the Church so as to enable students to live virtuous lives according to their nobility as children of God and disciples of Christ. Students will learn about the universal call to holiness and the standard of love to which Christ calls each person in the Sermon on the Mount. Morality is the study of how humans ought to behave by reason of who they are. After learning how to judge the morality of acts in general, they will learn how to hear the voice of God in their conscience in order to judge the morality of their own particular acts. Students will then systematically study the Ten Commandments as fulfilled in Jesus' Law of Love and consider how they can positively respond to Christ's call to holiness as young adults in the modern world.

9455 LIVING AS A DISCIPLE OF CHRIST**12 SEM .5 cr**

The purpose of this semester course is to provide students with a strong foundation in the Church's social teaching. Students learn how Christ's concern for others, especially the poor and marginalized, is present today in the Church's mission. Students learn how to apply the Church's social teaching to current events and contemporary issues, focusing on the unique social and economic issues facing underserved communities. *This course is required for all seniors.*

9465 THE CHURCH IN THE 20TH CENTURY**12 SEM .5 cr**

The purpose of this semester course is to examine the Church through the lens of each papacy of the 20th century with an emphasis on people, movements, and events through which the Church had an impact on society. Recognizing the Church as the living body of Christ and studying the contributions of modern saints to the understanding of God's universal call to holiness, students learn, through this study of recent Church history, how God continues to act in human history.

9475 SHARING THE FAITH IN THE WORLD TODAY**12 SEM .5 cr**

The purpose of this semester course is to build on the foundational truth that Jesus Christ established the Catholic Church and entrusted to the Church the fullness of God's Revelation. This study of apologetics provides students with skills of critical thinking and respectful communication needed to share the truths of the Catholic faith with others in the world today.

9485 WITNESSING THE GOSPEL**12 SEM .5 cr**

The purpose of this semester course is to allow students to develop a spirituality deeply centered in the mystery of God's grace and the universal call to holiness. Efforts are made to build a foundation of faith, virtue, and knowledge for an adult practice of moral and ethical behavior in today's secular society. Students take inspiration from evolving images of discipleship beginning with the earliest Christian communities and tracing the witness of the saints down through the ages to the present day. Emphasis is placed on being active members of parish communities, college campus ministry, and Catholic institutions committed to communal participation.

9495 THEOLOGY OF THE BODY**12 SEM .5 cr**

This senior elective examines Saint John Paul II's influential Theology of the Body. Through a philosophical lens, it considers the fact that "we are our bodies," that the human person is a unified composite of body and soul, and that we are physically made for love. In our challenging times, our bodies can be used as a "bridge or barrier" to full human communion. Students will consider our creation in the image of God, the effect of sin on our physical relationships, and our ultimate destiny. Students will recognize that their own bodies are made for communion with the Eucharistic and Resurrected Body of Christ. They will understand the person as self-gift and recognize that we all have a vocation to love and to give ourselves fully to God and to others.

Faith-related electives can be found in other departments:

Philosophy - Social Studies (Course #5770)

Science and Faith - Science (Course #4575)

Entrepreneurship - Technology and Business (Course #7280)

ENGLISH

The English department fosters excellence in critical thinking, analytical writing, public speaking and engaged reading. The English department affirms the whole person through a comprehensive study of the classics of literature with added emphasis on contemporary relevance and Catholic teachings. The curriculum integrates the study of literature with a sequential writing program, instruction in grammar and usage, vocabulary study, and oral presentation. Several elective courses are also offered. Skills learned in English classes are foundational for study in all disciplines and apply to all aspects of life. In this course of study, students are provided opportunities and incentives to appreciate the power of language in expressing thoughts, feelings and beliefs; to nurture a love of reading and improve communication skills in writing and speaking; to capably use 21st century research skills and technology; and to develop critical reading and thinking skills with a focus on logical, precise, moral and ethical reasoning.

Student-athletes may want to consider enrolling in an additional semester literature course to help strengthen or expand their English course grades in their NCAA core subject areas.

Summer reading assignments are an important part of student preparation for the upcoming school year and are required at all grade levels. The books you read and the assignments you complete will be assessed when you return to school and will count toward first quarter grades. It's essential to stay on track, manage time well, and engage with the texts thoughtfully. Make sure to complete all readings, annotations, and assignments by the first day of school, so you are ready to demonstrate your understanding and earn credit for your hard work. Plan to make summer reading a positive and rewarding experience!

ENGLISH

	REQUIRED COURSES	ELECTIVES
Grade 9	1100 English 1 1150 English 1 Honors	
Grade 10	1200 English 2 1250 English 2 Honors	1390 Public Speaking (SEM) 1510 Journalism 1460 Yearbook Production 1532/1538 Creative Writing (SEM/YR)
Grade 11	1300 English 3 1350 English 3 Honors 1360 AP English Language and Composition	1532/1538 Creative Writing (SEM/YR) 6860 Humanities Honors 1390 Public Speaking (SEM) 6700 Intro to Film (SEM) 1510 Journalism 1460 Yearbook Production
Grade 12	1400 English 4 1420 English 4 Honors 1450 AP English Literature	1560 World Literature Honors: Fiction (SEM) 1565 World Literature Honors: Non-Fiction (SEM) 1365 The Evolution of Science Fiction 1 (SEM)

1100 ENGLISH 1

9 YR 1.0 cr

This course provides a solid foundation in writing skills as well as an overview of literary analysis. To comprehend, analyze, and synthesize literary works, a variety of literary genres are employed. Students will be able to grasp how authors construct works after engaging in a complete study of literary aspects in each genre. Students put what they have studied into practice in a variety of essays and writing assignments that analyze the literature. Formal and casual writing styles and procedures are combined in writing strategies. Students improve their reading and writing skills as well as prepare for standardized testing by studying vocabulary. Correct usage, grammar, sentence structure, intensive paragraph study, and library skills are presented in a developmental sequence to assure achievement. Students begin learning the documentation process in the Modern Language Association (MLA) style and gain proficiency in the multiple-paragraph essay. **NCAA**

1150 ENGLISH 1 HONORS**9 YR 1.0 cr**

Prerequisites: HSPT scores on verbal, reading, and language sections ≥ 90 and an A in English 8; or results of English Honors qualifying exam. Writing sample may be required. This course is designed for freshmen who demonstrate an above grade-level proficiency in reading and writing. The literature program introduces students to the various literary genres, providing study in the epic, short story, novel, poetry, and drama. The program examines the contributions of influential writers from ancient to modern times. The more advanced points of grammar and usage are covered, as it is expected that students have a basic understanding of the rules that govern the language. Writing and reading assignments are of great frequency and sophistication requiring the student to provide in-depth analysis in both written and discussion formats. **NCAA**

1200 ENGLISH 2**10 YR 1.0 cr**

The course includes instruction in both language and literature. The literature program introduces students to works in world literature and examines the contributions of influential writers from ancient to modern times. Critical reading and thinking skills, as well as vocabulary study, continue to be emphasized. The course includes both written and oral language development. The language program builds on the freshman course and includes overall review of usage and grammar. The development of a thesis in the five-paragraph format is a central aspect of this course. Experiences in creative writing are offered. Library and research skills concentrate on preparing students to write documented papers. Instruction in note taking and paraphrasing from source material, together with renewed instruction in the Modern Language Association (MLA) method of documentation, continues. **NCAA**

1250 ENGLISH 2 HONORS**10 YR 1.0 cr**

Prerequisites: B in English 1 Honors; A- in English 1; or department approval. The literature program introduces students to works in world literature and examines the contributions of influential writers from ancient to modern times. Student writing is frequent and requires increasing sophistication in word choice, sentence structure, paragraph development, and overall impact. A research paper is a requirement of this course. Students are expected to actively participate in class discussions and to read and analyze a number of texts that supplement the classroom curriculum. **NCAA**

1300 ENGLISH 3**11 YR 1.0 cr**

The study of American literature from the colonial time to the present through novels, short stories, plays, and poetry is the focus of this course. Students get a broad understanding of how American society has influenced literature and how literature and writing have evolved over time by reading a variety of works. Students' formal and informal responses to literature and its elements as well as a research project on American culture are the focus of composition within this course. Vocabulary study continues in preparation for the PSAT and SAT. The composition program continues to develop skills learned in the freshman and sophomore courses and focuses on the various rhetorical forms of argument: persuasion, expanded definition, comparison/contrast, and literary analysis. Creative writing opportunities are provided. A research paper is a requirement of this course. **NCAA**

1350 ENGLISH 3 HONORS**11 YR 1.0 cr**

Prerequisites: B in English 2 Honors in Semesters 1 & 2; A- in English 2; or department approval.

The junior course includes both composition and literature. The literature program surveys the major influences and writers in American literature from colonial times to the present. Students in this course have shown a readiness to use higher level thinking skills when engaging literary texts, as evidenced by written and oral work that demonstrate an ability to read carefully, judge soundly, and synthesize logically. Students write frequently, exhibiting the reading and analytical skills necessary to conduct sound literary analysis. Students must possess strong organizational skills, the ability to work independently, and the desire to read and analyze several texts in addition to the classroom curriculum. A research paper is a requirement of this course. **NCAA**

1360 AP ENGLISH LANGUAGE AND COMPOSITION**11 YR 1.0 cr**

Prerequisites: A in English 2 Honors or department approval. Writing sample may be required.

This college level course is offered to junior students who have demonstrated a high degree of interest and proficiency in writing. The course is organized to assist students to perform well on the Advanced Placement (AP) Examination in English Language and Composition administered by the College Board in May and required of all students taking this course.

This course provides for the study and writing of various kinds of analytic or personal essays on nonliterary topics and includes instruction in rhetorical aims, modes, and techniques, and how to apply those principles in writing assignments. Although non-fiction is the focus of the AP exam in English Language and Composition, the American literature curriculum, including poetry and fiction, is thoroughly covered in this course. Nonfiction selections are taken from a wide variety of sources. Students who take this course should plan to take AP English Literature in their senior year.

The course complements the current curriculum offered by the English department in its content and skills building. Students are asked to write literary analysis papers; in addition, students write in-class essays to practice classic argumentation and to expand upon the ideas highlighted by the texts on the syllabus. A research paper is a requirement of this course. **NCAA**

1400 ENGLISH 4**12 YR 1.0 cr**

The senior course includes both literature and composition components. The literature program surveys the major works, writers, and influences in the British tradition. Critical skills in reading, thinking, and writing continue to be emphasized and applied.

The composition program builds on the skills learned in the first three years and challenges students to refine writing skills in preparation for research, development and documentation within a required research paper. Creative writing opportunities are provided to give the student a forum for creative expression. A research paper is a requirement of this course. **NCAA**

1420 ENGLISH 4 HONORS**12 YR 1.0 cr**

Prerequisites: B in English 3 Honors; A- in English 3; or department approval. Writing sample is required.

The senior course includes both literature and composition components. The literature program surveys the major works, writers, and influences in the British tradition. The senior honors course is designed for students who have demonstrated an ability to engage in clear and insightful literary analysis, to produce clear and cohesive essays, and to engage in advanced classroom discussions. Students are expected to read and analyze several texts in addition to the classroom curriculum. A research paper is a requirement of this course. **NCAA**

1450 AP ENGLISH LITERATURE AND COMPOSITION**12 YR 1.0 cr**

Prerequisites: B in AP English Language; A- in English 3 Honors; or department approval. Writing Sample is Required.

This college level course is offered to highly motivated students of English in senior year. This course is organized to assist students to perform well on the Advanced Placement (AP) Examination in English Literature administered by the College Board in May and required of all students taking this course.

This course includes both literature and composition. The literature is primarily British-based but includes readings from both European and American authors. Critical analysis, sound judgment, and logical synthesis in interpreting the readings are demonstrated in the frequent writing of critical essays. A seminar approach to oral discussions provides a forum for students to interact and to share insights in order to deepen their understanding and appreciation of the readings. Students are expected to read and analyze ten to twelve full-length works in addition to the classroom curriculum. A research paper is a requirement of this course. **NCAA**

1532 CREATIVE WRITING AND PUBLICATIONS**10-12 YR 1.0 cr****1538 CREATIVE WRITING AND PUBLICATIONS****10-12 SEM .5 cr**

This elective course offers a supportive and instructional environment for students wishing to develop their creative writing abilities. Additionally, the course offers hands-on experience in the process of creating and managing publications, both in print and online. Participants work in the genres of poetry, short fiction, drama and screenplay writing. Students also learn how to work in InDesign, Photoshop, and on digital platforms in order to create a publication. Readings consist of classical and modern examples in each of the studied genres. Students will also be expected to review modern publications for understanding of the creative process. Students will learn design skills and produce a creative writing portfolio that may further their ambitions beyond the high school level. *1538 is only available during the first semester.* **NCAA**

1560 WORLD LITERATURE HONORS: FICTION 11-12 SEM .5 cr

1565 WORLD LITERATURE HONORS: NONFICTION 11-12 SEM .5 cr

Prerequisites: B in English 2 or 3 Honors; A- in English 2 or 3.

These elective semester courses for World Literature Honors are divided by genre (fiction and non-fiction); students may elect to take one or both electives. These electives includes works of short stories, the novella, novels, non-fiction essays, and memoirs as a way of providing supplemental selections of world literature not covered in the regular curriculum. Students will study literature from China, India, Russia, Iran, British Kenya, South America, and 1920s Paris. Students will analyze the various genres as well as the cultural perspectives and related history for each of the selections. Student writing is frequent and requires sophistication in word choice, organization, research, and commentary. Students will develop an appreciation of cultural and historical identity; enhance critical thinking and reasoning skills; and use technology as an integral element of successful presentations. **NCAA**

6860 HUMANITIES HONORS 11-12 YR 1.0 cr

Prerequisites: B+ in English, B in English Honors/AP, or recommendation from current social studies and/or art teacher.

This elective honors course presents artistic patterns of relationship from ancient Greece to the present among philosophy, literature, architecture, sculpture, painting and music—all in light of the major historical events of each period. Content focuses on the interrelationships between arts and ideas in the framework of their proper historical and cultural settings. *This class also serves as a social studies elective and fulfills the Fine Arts requirement for graduation.* **NCAA**

1370 AMERICAN MULTICULTURAL LITERATURE HONORS 11-12 SEM .5 cr

Prerequisites: B- in AP English Language; B in English 2 or 3 Honors; A- in English 2 or 3; or department approval.

This elective course explores American diversity through reading and discussion of contemporary fiction, nonfiction, poetry, and drama. Students examine major literary themes and changing definitions of identity, racism, nativism, the American Dream, social values and more. This class requires participants to approach texts with openness and respect for new perspectives and disparate communities. Students evaluate writing strategies and techniques of each author and incorporate research of historical and cultural contexts of works to develop a greater appreciation of diverse cultural texts that represent America. **NCAA**

1365 THE EVOLUTION OF SCIENCE FICTION 1:

A TEXT AND FILM STUDY 11-12 SEM .5 cr

This elective literature and fine arts/humanities course surveys the major writers and influences in science fiction literature from ancient times to 1960 through essays, short stories, novels, and films. Students examine how historical, social, psychological, scientific, and economic factors influenced the genre and how the genre continues to comment on these aspects within the genre itself and in our modern society. The course is designed for students who have demonstrated an ability to develop clear and insightful literary analysis, to produce clear and cohesive essays, and to engage in advanced classroom discussions. Students are expected to read and analyze several texts and watch additional films to supplement the classroom curriculum. An independent project is a requirement of this course. **NCAA**

1368 THE EVOLUTION OF SCIENCE FICTION 2:

A TEXT AND FILM STUDY

11-12 SEM .5 cr

This elective literature and fine arts/humanities course surveys the major writers and influences in science fiction literature from the 1960s to the present through essays, short stories, novels, and films. Students examine how historical, social, psychological, scientific, and economic factors influenced the genre and how the genre continues to comment on these aspects within the genre itself and in our modern society. The course is designed for students who have demonstrated an ability to develop clear and insightful literary analysis, to produce clear and cohesive essays, and to engage in advanced classroom discussions. Students are expected to read and analyze several texts and watch additional films to supplement the classroom curriculum. An independent project is a requirement of this course. **NCAA**

1390 PUBLIC SPEAKING

9-12 SEM .5 cr

This elective course includes the basics of effective speaking and listening skills, preparation and tools for giving a speech, and the opportunity to present several types of speeches followed by evaluation by teacher and peers. This course aims to improve knowledge of effective communication skills as well as self-confidence. *This class fulfills the Fine Arts requirement for graduation.* **NCAA**

6700 INTRO TO FILM

11-12 SEM .5 cr

This elective course presents an in-depth treatment of film as a powerful 20th and 21st century art form. Students become familiar with film language and technique, study the history of American film, and critique numerous films using the knowledge they acquire through viewing clips from the greatest movies made, as well as from full-length presentations. The course requires discussion and critical writing. Topics to be discussed include: photography, sets/settings, movement, editing, sound, acting, drama, story, writing, ideology, and theory. *This course fulfills the Fine Arts requirement for graduation.* **NCAA**

1510 JOURNALISM

10-12 YR 1.0 cr

Prerequisites: B in current English class. Writing sample may be required.

This elective course introduces students to the fundamental components of journalism and the production of an online school newspaper. As students “cover” the school community, they learn how to write effective articles, captions, and headlines. Students also learn how to organize and conduct interviews; design layouts on the computer using WordPress; and publish content on the newspaper website. Students develop communication skills in writing, designing and editing, and develop an understanding of news and the process of publication. Students need to be able to complete multiple revisions and meet publication deadlines, working in a variety of roles, such as writers, photographers, editors, and designers. *This course fulfills the Technology and Fine Arts requirements for graduation. Honors credit is available for seniors who have an A in English with previous school publication experience.*

1460 YEARBOOK PRODUCTION**10-12 YR 1.0 cr**

Prerequisites: B in English or department approval.

This elective course introduces students to the successful production of a school yearbook. Students learn about the various sections of the yearbook and how to write effective yearbook articles, captions, and headlines. They also learn how to organize and conduct student and faculty interviews, design layouts on the computer using Adobe InDesign, and assemble the pages of the yearbook to meet structure production deadlines. Effective editing, revision, and photography skills are developed. *This course fulfills the Technology and Fine Arts requirements for graduation. Honors credit is available for seniors who have an A in English with previous school publication experience.*

FINE ARTS

The Arts nurture the very fiber of the human spirit. An education without the Fine Arts is half an education. Our belief is that the Arts belong to everyone and that our school community is enriched when every student has the opportunity for self-expression, through visual and graphic arts, photography and video production, through music performances and appreciation, and through art history and drama production. These experiences foster original, intelligent and creative thought processes and cultivate a strong, individual character within each of our students.

Students must earn at least 0.5 credit hours (one semester) in Fine Arts for graduation.

VISUAL ARTS

6010 ART 1

9-11 YR 1.0 cr

This course is a foundation course in basic art and design. Students are introduced to the Elements of Design and Principles of Composition. Students work in various techniques and media on projects designed to sharpen their skills of art through observation, design and composition. Students learn to look at art thoughtfully and critically and begin to develop their own aesthetic sense. There are brief lectures and PowerPoint presentations exploring various artists and their media. Students develop an art vocabulary as well as gaining an understanding and practice of group and individual critiques. By the conclusion of the course, students are able to formulate a personal and informed response to the question: "What is art?"

6020 ART 2

10-12 YR 1.0 cr

Prerequisites: Art 1, or evidence of previous art instruction.

This course is offered as a sequential step from Art 1. Students build on previous knowledge and vocabulary and have the opportunity to publish their work in the school art and literary magazine. They may also participate in shows outside the school environment. Students focus on beginning to build a portfolio.

6030 ADVANCED ART HONORS

10-12 YR 1.0 cr

Prerequisites: B in Art 2 or review of student's portfolio from previous Art instruction.

Advanced Art Honors provides students with the opportunity to engage in the advanced study of art processes, vocabulary and art history. Students are expected to demonstrate principles and elements in art as well as visually communicate ideas, using advanced approaches in drawing and painting. The instructor guides students to form goals and develop individual styles, to become familiar with art schools and art related careers. Students develop a portfolio of their work and contribute artwork to the Largesse and to displays within and outside the school. There is a focus on presentation, quality work, exhibition and purpose.

6040 AP 2D ART AND DESIGN**10-12 YR 1.0 cr**

Prerequisites: Enrollment in this course is based upon review of the student's existing artwork. Students are required to have a B+ in Art 1 or a more advanced art class.

Previous experience in art, graphic design, and/or photography is beneficial.

This course focuses on the creation of two dimensional artwork using various media such as drawing, painting, graphic design, photography, collage, printmaking, and illustration. Students develop their skills by practicing, experimenting, and revising their work based on concepts they develop. The final submission is a portfolio submitted to the College Board for review.

6045 AP DRAWING**11-12 YR 1.0 cr**

Prerequisites: Completion of Advanced Art Honors and review of student's portfolio.

This course is designed for students who demonstrate proficient skills in drawing and painting. Students apply the elements and principles of art effectively to communicate their ideas visually and verbally in two dimensions. They must exhibit a strong commitment to their discipline. Students are required to submit a portfolio for consideration to the Advanced Placement Board in May for possible college credit pending a qualifying score. **NCAA**

6860 HUMANITIES HONORS**11-12 YR 1.0 cr**

Prerequisites: B+ in English, B in English Honors/AP, or recommendation from current social studies and/or art teacher.

This elective honors course presents artistic patterns of relationship from ancient Greece to the present among philosophy, literature, architecture, sculpture, painting and music—all in light of the major historical events of each period. Content focuses on the interrelationships between arts and ideas in the framework of their proper historical and cultural settings. *This class also serves as an English or social studies elective.* **NCAA**

6049 AP ART HISTORY**11-12 YR 1.0 cr**

Prerequisites: B+ in English, Fine Arts and Social Studies classes; or department approval.

What is art? This college level course explores the history of the art of the world from the prehistoric era to the present. The class addresses stylistic development and cultural values, as well as the historical context that influence artistic production and practice. The class uses an interdisciplinary approach to discuss style, content, meaning, patronage, faith, interpretation, context, and significance of works of art, preparing students for the AP Art History exam in May which all students enrolled in the class are required to take. The course includes one research paper. *This course also serves as an elective Social Studies credit.*

6510 PHOTOGRAPHY**10-12 SEM .5 cr**

This is a foundation course in basic skills and understanding in photography. Students are introduced to the Elements of Design and Principles of Composition. Students work in various techniques and mediums in projects designed to sharpen their skills in photography through observation, design and composition. Students learn to look at photography thoughtfully and critically and begin to develop their own aesthetic sense. There are brief lectures and PowerPoint presentations exploring various artists and their mediums. Students develop a photography vocabulary and gain an understanding of and practice in group and individual critiques. By the conclusion of the course, students are able to formulate a personal and informed response to the question: "What is photography?"

6525 ADVANCED FILM PHOTOGRAPHY**11-12 SEM .5 cr**

Prerequisites: Completion of Photography and permission from instructor.

This course is designed to meet the needs of students who wish to learn advanced techniques in 35mm film photography. Students build upon skills learned in the introductory photography course. Topics may include: documentary photography (photojournalism), studio photography (portrait lighting techniques), building strong compositions, operation of a SLR (single lens reflex) camera, and advanced darkroom techniques.

6600 GRAPHIC DESIGN**10-12 SEM .5 cr**

This course focuses on commercial design. Students learn the fundamentals of design, including layout, website, business card, packaging, and advertising design. They experience graphic history and disciplines through multi-media and become comfortable working with a variety of materials.

6022 INTRODUCTION TO 3D ART**10-12 SEM .5 cr**

In this course, students explore art as a design form. They are introduced to a variety of materials, processes and techniques that are used in the creation of three-dimensional art. Students become familiar with traditions from various cultures, and study contemporary 3D art, learning how to evaluate and critique pieces through the basic design elements and principles of art. Classes include brief lectures, discussions, demonstrations, project-based learning and independent studio work.

6615 INTRODUCTION TO ADVERTISING**10-12 SEM .5 cr**

This course explores the creative process of solving marketing opportunities for a business (client) (Art for Commerce). Students will learn ad agency make-up, roles, and responsibilities (Account Executive, Data and Research Manager, Creative Director). Emphasis will be on how solutions (concepts) happen (Marketing Objective, Creative Brief, Ideation, Refinement, Execution, Presentation). The course will explore groundbreaking advertising and the agencies created from the 1960s through today. *This class serves as a fine arts and a business credit.*

MUSIC**6350 CONCERT BAND****9-10 YR 1.0 cr**

This class is open to any student who has beginner's proficiency or would like to start playing an instrument. Students learn music fundamentals and basic theory as well as musicianship through performance of technical exercises, scales, and band literature. A continuing goal of the course is to develop students' skills as a musician, including historical connections between art, history, architecture, and music. In addition, concert etiquette and team building skills are developed. Personal practice on one's instrument is necessary for success in band class.

6440 SYMPHONIC BAND 10-12 YR 1.0 cr

6450 SYMPHONIC BAND HONORS 10-12 YR 1.0 cr

Admission to these courses is based on playing ability and a placement audition.

Students continue to learn music theory through the performance of technical exercises, scales, and band literature. A continuing goal of this course is developing mature musicianship in performance. Skills include the process of critically analyzing personal and group performance skills, understanding historical concepts and intermediate theory practices, and the ability to work as a team member. Personal practice on one's instrument is necessary for success in band class. Students may earn honors credit for this course with additional requirements including performing at school functions, school sanctioned functions, and volunteer events.

6210 ORCHESTRA 9-12 YR 1.0 cr

6255 ORCHESTRA HONORS 10-12 YR 1.0 cr

Students in this course form the representative string performing group for the school. Emphasis is placed on the sequential development of advanced technical, ensemble and disciplinary skills necessary for refined rehearsal and performance both in and out of school. In order to receive credit for the course, students must meet participation requirements that include both school day and outside of school day activities. Students will learn and refine the following musical skills: proper instrument posture and position, major and melodic scales, various bowing techniques, proficiency in sight-reading, acceptable tone and intonation, musical balance as a group, proper care and cleaning of instruments, and performance of selected music at an advanced level from various genres and historical eras. *Admission to Honors is based on orchestra experience and teacher approval.*

6831 JAZZ ENSEMBLE 10-12 YR 1.0 cr

Prerequisites: Department audition and one year in orchestra or guitar class (for strings and guitar) or one year in concert or symphonic band (for wind and percussion).

The ensemble is made up of the standard big band instrumentation. Students learn many different styles of popular music including jazz, rock, fusion, Latin, and blues. Each student in the ensemble also learns jazz theory, jazz history, and the art of improvisation. *This class meets two days per week after school.*

6362 PIANO 9-12 SEM .5 cr

6368 PIANO HONORS 9-12 SEM .5 cr

This piano seminar is designed for students who have completed Piano Fundamentals or students who have prior experience at the intermediate level or above. Admission to the course is based on playing experience and a placement audition. Students learn basic theory and harmony, scales and arpeggios, improvisational techniques, music history, and performance practices. This course is designed to shape a well-rounded pianist. *This course is available for honors credit with audition and instructor approval.*

6586 ADVANCED PIANO ACCOMPANIMENT 9-12 YR 1.0 cr

Prerequisite: Admission only through audition for course instructor.

Advanced Piano Accompaniment is offered by audition to students who demonstrate a high level of proficiency on the instrument. In this course, students learn piano technique related to choral and instrumental accompaniment: how to read vocal parts from a choral score, to transpose and reduce an orchestral score, to improvise keyboard accompaniments for lead sheets, to follow a conductor or solo performer, and to sight read in a live performance setting. Students also receive practical training through participation in regular choral rehearsals and coaching from a specialist.

6370 BEGINNING GUITAR 9-12 SEM .5 cr

Beginning Guitar is a course designed for those with little to no knowledge of how to play guitar. The focus of this class is on basic classical guitar techniques and playing styles. A mixture of older traditional songs and more contemporary pop tunes is used to educate the student on the proper methods of playing. Basic music theory, guitar history and the ability to read music are taught as well.

6380 INTERMEDIATE GUITAR 9-12 SEM .5 cr

Admission to this class is based on playing experience and placement audition.

Intermediate Guitar is a course designed for those with a basic understanding of classical guitar playing. The focus of this class is on more advanced classical guitar music and techniques. A mixture of older traditional songs and more contemporary pop tunes are used to further educate the student on the proper methods of playing. Music theory and history are taught as well.

6574 MEN'S CHORUS 9-12 YR 1.0 cr

6573 MEN'S CHORUS HONORS 10-12 YR 1.0 cr

The O'Connell Knights Men's Chorus is open to all interested 9-12 grade basso voices of any level. This ensemble performs repertoire from a variety of musical styles, cultures and historical periods. Students study introductory vocal technique, musical theory, music literacy, and performance practice, while developing skills as independent musicians. All ensembles combine to perform SATB music for select performances.

Auditions for honors level chorus are held in the spring semester.

6578 WOMEN'S CHORUS 9-12 YR 1.0 cr

6579 WOMEN'S CHORUS HONORS 10-12 YR 1.0 cr

The Women's Camarata is open to all interested 9-12 grade treble voices of any level. This ensemble performs repertoire from a variety of musical styles, cultures, and historical periods. Students study introductory vocal technique, music theory, music literacy, and performance practice, while developing skills as independent musicians.

All ensembles combine to perform SATB music for selected performances. *Audition for honors level chorus are held in the spring semester.*

6585 O'CONNELL SINGERS HONORS**10-12 YR 1.0 cr**

Prerequisites: Prior choral singing experience; audition with course instructor.

The O'Connell Singers is an honors level, select female chamber choir. The ensemble is open to highly qualified students through audition. The O'Connell Singers perform repertoire from a variety of musical styles, cultures and historical periods. Students study introductory vocal technique, music theory, music literacy, and performance practice, while developing skills as independent musicians. All ensembles combine to perform SATB music for select performances. *Auditions are held in the spring semester.*

6582 SELECT MEN'S ENSEMBLE HONORS**10-12 YR 1.0 cr**

Prerequisites: Prior choral singing experience; audition with course instructor.

This ensemble is an honors level, select male chamber choir, open to highly qualified students through audition. This group performs repertoire from a variety of musical styles, cultures, and historical periods. Students study introductory vocal technique, music theory, music literacy, and performance practice, while developing skills as independent musicians. All ensembles combine to perform SATB music for select performances. *Auditions are held in the spring semester.*

6588 CHAMBER SINGERS**10-12 YR 1.0 cr**

Prerequisites: Audition with course instructor. Co-requisite: Students must be enrolled in another choral ensemble.

The Chamber Singers is an honors level select chamber choir for soprano, alto, tenor, and bass voices. The Chamber Singers perform repertoire from a variety of musical styles, cultures, and historical periods. Students study advanced choral technique, theory, and performance practice while developing skills as independent musicians. Students are expected to have a secure knowledge of vocal production, music literacy, and basic music theory before participating in the ensemble. The group is highly selective and should be considered by singers who are hoping to pursue music in the future. Students are expected to audition for at least two honor choir opportunities (district, state, VMEA senior honors choir). *This class meets after school.*

6650 AP MUSIC THEORY**11-12 YR 1.0 cr**

Prerequisites: Two years of vocal or instrumental class or ensemble or department chair approval.

This course is offered to students who have a strong foundation in music. Successful completion of a preparatory summer assignment is required. Students work at a college pace mastering musical rudiments such as notation, intervals, scales and keys, chords, metric organization, and rhythmic patterns. Students work on aural skills, compositional skills, sight-singing skills, and analytical skills as they apply to music theory. Students are required to take the AP Music Theory exam in May.

6665 SURVEY OF AMERICAN MUSIC**9-12 SEM .5 cr**

This course explores the development of classical and folk music in the United States and traces the evolution of blues, jazz, ragtime, latin, rock, rap and musical techniques involved in the creation and performance of American music. Students are challenged to identify the characteristics of Native American music, colonial music and a variety of folk music including slave songs. Course curriculum includes reading, listening and writing assignments related to the music being studied. Students will learn how to listen to music as musical and performative forms, respond to how music is created and interpreted, and connect music as a direct expression of the cultural context in which it is produced. *This class is only offered in the summer, and can serve as an elective credit in social studies. There is an additional fee for this course.*

6595 MUSIC AND COMPUTER TECHNOLOGY**9-12 SEM .5 cr**

This course focuses on how technology has affected music performance, reproduction, and distribution. Students learn recording technology methods including live and studio recording techniques and remixing. They learn computer-based notation, sound sampling, and electronic music production and have the opportunity to utilize beat making and midi technology. *This course fulfills the technology requirement for graduation.*

MEDIA AND THEATRE**6700 INTRO TO FILM****11-12 SEM .5 cr**

This elective course presents an in-depth treatment of film as a powerful 20th and 21st century art form. Students become familiar with film language and technique, study the history of American film, and critique numerous films using the knowledge they acquire through viewing clips from the greatest movies made, as well as from full-length presentations. The course requires discussion and critical writing. Topics to be discussed include: photography, sets/ settings, movement, editing, sound, acting, drama, story, writing, ideology and theory. *This class also serves as an elective in English.*

6825 AV PRODUCTION**10-12 YR 1.0 cr****6810 AUDIO & VIDEO PRODUCTION 1****10-12 SEM .5 cr****6815 AUDIO & VIDEO PRODUCTION 2****10-12 SEM .5 cr**

In these elective courses, students learn the fundamentals of audio-digital video production concepts and techniques. The course covers all aspects of production, including creating and editing an audio track, developing an idea into a plot and video script, storyboarding, coordinating all necessary actors, lighting, settings and props, filming, directing, and ultimately editing a finished product using current audio and video sound editing applications from the Adobe suite. Over the full year, a minimum of eight audio projects/digital shorts will be produced, culminating in a final combo project completed by each individual student. Students also will be required to film assemblies or sporting events for the school. They may also produce video shorts for the morning announcements. Course 6815 is available only in the second semester and has a prerequisite for completing 6810 or a similar course.

6950 THEATRE	9-12	YR	1.0 cr
6940 THEATRE 1	9-12	SEM	.5 cr
6945 THEATRE 2	10-12	SEM	.5 cr

These courses are an exploration of Western theatre, beginning with the Ancient Greeks through to modern American drama and musical theatre. In Theatre 1, students learn about theatrical production, basics of acting based in Uta Hagen, and key figures in theatre history such as Shakespeare, Chekhov, and Stanislavski. They begin learning about script analysis, character development, and rehearsal techniques. In Theatre 2, students explore modern theatre and the work of great playwrights such as Arthur Miller, Edward Albee, Tennessee Williams, and more. They work on monologues and scenes across a variety of theatrical genres, as well as explore advanced concepts such as Meisner technique, Viewpoints, principles of directing, and theatrical design. *Students may schedule a full year theatre course (6950) or semester courses.*

6755 DANCE	9-12	SEM	.5 cr
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This semester course is an introduction to Western dance styles such as ballet, tap, jazz and musical theatre. Students will learn the fundamentals of posture, body movement and classical technique, as well as basic vocabulary across the dance disciplines. Students will work goals such as stamina, core strength, and flexibility. Students will also develop skills for learning and developing choreography. The class will include study of key figures in the history of dance and their contributions to the art form. This class is appropriate for beginner to intermediate level students. *This course serves as a PE elective. A section of this class is offered in the summer for an additional fee.*

6930 THEATER TECH	10-12	SEM	.5 cr
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This technology-based course introduces students to the technical side of theatrical production, including theatrical design. Students learn about scenic design and building, sound and lighting technology, costume design, projection design, props, and special effects, and develop proficiency in the following computer programs: SketchUp and Vectorworks (3D modeling), QLab (sound design), Eos and ETC Nomad (lighting design), CLO (costume 3D rendering), and the Adobe suite (projections). *This course fulfills the technology requirement for graduation.*

HEALTH AND PHYSICAL EDUCATION

“The correct practice of sport requires a good team spirit, respectful attitudes, the appreciation of the qualities of others, honesty in the game and humility to recognize one’s own limitations. In short, sports, especially in less competitive forms, fosters festive celebration and friendly coexistence with the Christian outlook, becomes a “generative principle” of profound human relations and encourages the building of more serene and supportive world.” - Pope John Paul II

Health and Physical Education courses are designed to inspire and equip you to lead a healthy, active lifestyle both now and in the future. These courses provide students with the opportunity to enhance their physical fitness, develop lifelong healthy habits, and build essential social and teamwork skills. Through engaging activities such as team sports, individual fitness training, and cooperative games, students explore various ways to stay active and prioritize their well-being. Specialty classes such as Nutrition, Sports Medicine, or Child Development provide background for further study.

Each student is required to earn 1.5 credits in Health/Physical Education. Health is a requirement for all students. Students may select to be excused from .5 credits of physical education for two seasons of participation in O’Connell sports teams. Students may also request prior approval from the Dean of Academics for dance, gymnastics, equestrian competition, or other programs not available at O’Connell to satisfy this requirement. While athletes may be excused from taking PE classes, it is often to their advantage to include PE in their schedule since it contributes as a college prep class to their GPA.

8115 HEALTH 1 (GIRLS) 9 SEM .5 cr

8015 HEALTH 1 (BOYS) 9 SEM .5 cr

This semester course is designed to take a holistic approach to human health. It is based on the conviction that the human person is a unified totality and personal well-being consists in the proper integration of physical, emotional, mental, social and moral life. From this perspective, the course seeks to investigate the positive development of human well-being and certain behaviors which threaten this development. Topics to be studied include: basic factors in physical, mental, emotional and moral health; nutrition and fitness; CPR; harmful effects of drugs, steroids, and alcohol; sexual health and disease and benefits of a healthy active lifestyle. *This course is required for all students and is available in the summer (#S815) for an additional fee.*

8111 PHYSICAL EDUCATION 1/INTRO TO TEAM SPORTS (GIRLS) 9 SEM .5 cr

8011 PHYSICAL EDUCATION 1/INTRO TO TEAM SPORTS (BOYS) 9 SEM .5 cr

This course includes a variety of team and individual activities to meet the student’s present need for fitness and physical activity. Students are provided with knowledge of fitness components, basic rules and history, and skilled movements related to selected sports. Students will also learn the process of self-analysis related to skills in each unit and will abide by a code of sportsmanship in all settings.

8225 DRIVER EDUCATION WITH FIRST AID AND CURRENT ISSUES 10-11 SEM .5 cr
 This course includes classroom driver education instruction (36 hours) which covers all aspects of safe and responsible use of a motor vehicle. Opportunity is provided for parents to attend a Virginia-required parent meeting. Other topics included in the course are first aid and current issues such as concussion protocol.

8220 PHYSICAL EDUCATION 2 10 SEM .5 cr
 Physical Education 2 includes a variety of team and individual activities designed to meet the individual's present need for fitness and physical activity as well as introducing activities that can be continued later as part of a healthy lifestyle. In this class students will play seasonal sports. Students will participate in sports both on the field/track and in the gym. In addition to sports, students will receive conditioning and fitness training for lifelong enrichment.

S805 HEALTH 1 9-10 Summer .5 cr
 Health 1 is a required class for all students. Summer sections are available to incoming freshmen and rising sophomores. (See 8115 and 8015 for course content.)

S806 GENERAL PHYSICAL EDUCATION 9-10 Summer .5 cr
 This coed class is provided for those wanting to earn P.E. credit over the summer rather than during the regular school year. (See 8011 and 8111 for course content.)

S808 DRIVER ED WITH CURRENT ISSUES 10-11 Summer .5 cr
 This classroom driver education course satisfies the requirement for a Virginia certificate. (See 8225 for course content.)

IN CAR DRIVER EDUCATION 10-12 0.0 cr
 In-Car Driver Education is offered in the summer and during the school year on a first come, first-served basis. *A fee is charged for this instruction. No credit is offered for these sessions.*

8230 INTERMEDIATE SPORTS/FITNESS 10-11 SEM .5cr
 This course includes a variety of team and individual activities designed to meet the individual's present need for fitness and physical activity, as well as introducing activities that can be continued later as part of a healthy lifestyle. In this class students play seasonal sports such as football, soccer, badminton, basketball, volleyball and ultimate frisbee. Students participate in sports both on the field/track and in the gym. In addition to sports, students receive conditioning and fitness training for lifelong enrichment.

8445 WEIGHT TRAINING 10-12 SEM .5 cr
8441 WEIGHT TRAINING (GIRLS) 10-12 SEM .5 cr
 This course emphasizes self-improvement and enhances the student's knowledge of physiology, endurance, and strength development. Techniques, form, and safety for weight lifting are emphasized as students are given daily class opportunities to establish personal goals that are tracked and monitored for learning the elements of exercise program design and to allow students to demonstrate marked improvement throughout the semester.

8448 PERSONAL FITNESS**10-12 SEM .5 cr**

This course emphasizes the importance of physical activity in maintaining mental, emotional, and physical health. Students will learn fundamental skills in sports, improve their strength and endurance through targeted exercises, and gain an understanding of the principles of fitness and wellness.

8355 LIFETIME SPORTS AND RECREATIONAL GAMES**10-12 SEM .5 cr**

This course includes continued learning of motor skills related to team and individual sports such as track and field, tennis, ultimate frisbee, flag football, badminton, soccer, volleyball, basketball, and bowling. The course will provide opportunities to foster leadership attributes, strategic play, sportsmanship, and scoring/statistics/record keeping aspects among the sport activities. Students will also learn and participate in recreational games and tournaments such as kickball, spike ball, and dodgeball.

6755 DANCE**9-12 SEM .5 cr**

This semester course is an introduction to Western dance styles such as ballet, tap, jazz and musical theatre. Students will learn the fundamentals of posture, body movement and classical technique, as well as basic vocabulary across the dance disciplines. Students will work goals such as stamina, core strength, and flexibility. Students will also develop skills for learning and developing choreography. The class will include study of key figures in the history of dance and their contributions to the art form. This class is appropriate for beginner to intermediate level students. *This course serves as a fine arts elective. A section of this class is offered in the summer for an additional fee.*

8300 SPORTS MEDICINE**11-12 SEM .5 cr**

This course is an introduction to the many aspects of sports medicine. Instruction on common injuries composes the core of the course. Many non-injury topics are also covered such as sports nutrition, drug abuse in sports, sports psychology, medical conditions and sport participation, sports performance enhancement, and exercise in heat and cold. Careers in sports medicine and an introduction to current literature are also included.

8340 INTRO TO SPORTS MANAGEMENT**11-12 SEM .5 cr**

The Sports Management course actively involves students in gaining a deeper understanding and knowledge of programming, communication, marketing, sales, facility management and event management within the sports industry. Students gain insight into the intricacies behind the scenes of their favorite sports events and programs. To master the content presented, students actively engage in research projects, prepare presentations, and hone their interpersonal skills. These activities not only enhance their subject matter comprehension, but also provide them with tools that carry them far beyond the conclusion of the course.

8320 NUTRITION FOR A HEALTHY LIFESTYLE**10-12 SEM .5 cr**

This course explores the foundations of a healthy diet, including recommended nutrients, budget-conscious selection and preparation of foods, and strategies for navigating complex, and sometimes contradictory nutrition information. Students explore the role that key nutrients play in chronic disease prevention and the political and cultural role food plays in our society. This class provide students with a general understanding of the key principles of a healthy diet and provides guidance on strategies for sustainable lifestyle behavior change.

8325 CHILD DEVELOPMENT**11-12 SEM .5 cr**

This course addresses child development from the perspective of a future parent. How does a child learn? What is it like to be a child? How does a child develop resilience and grow in virtue? How does a child become an adult? The fascinating world of the infant, toddler and young child will be explored in a comprehensive study of his or her physical, cognitive, and emotional development from conception to adolescence within the context of our Catholic vision of the human person as a unique, unrepeatable image of God called to virtue and beatitude.

MATHEMATICS

The mission of the Math Department at Bishop O'Connell High School is to prepare each student for future courses in mathematics and related disciplines, to make students confident and comfortable in the world of numbers and mathematical concepts, and to demonstrate the value of living a life rooted in Christ. Students are offered instruction in the life-long skills of problem solving, logical thinking, and attention to detail.

Placement decisions are made with the goal of having students in classes where they can keep up with the material and are confident that they are mastering it. Students placed below their performance level are often bored, and students placed above their performance level often become frustrated, both with the grades they are receiving and with the difficulty of understanding challenging material. Course prerequisites (see course descriptions on the pages that follow) are carefully designed to accomplish the goal of proper placements, enabling students to earn a grade of B or better in the course.

Freshman placement is based on several factors: high school placement scores in math, math grades in 8th grade, and algebra exemption exam scores. Freshmen starting in Algebra 1/A wanting to progress to Calculus before leaving high school may schedule Geometry/A and Algebra 2/Trig simultaneously in 10th grade or take the summer Geometry/A class after their freshman year in order to be placed in Algebra 2/Trig in the 10th grade.

Mathematics Course Map

The Mathematics Course Map is separated into columns based on which mathematics course a student takes in 9th grade. The first column contains the course map for students who begin high school taking Algebra 1/A. The second column shows the course map for students who take Algebra 2/Trigonometry in 9th grade. The third column addresses students who take Algebra 2/ Trigonometry Honors in 9th grade. Students taking courses other than one of these three in 9th grade are dealt with on a one-by-one basis.

In each column, the bolded courses are the courses most likely to be taken by students in that column. The non-bolded courses listed are taken by students who move up or down a level; non-bolded courses also include other mathematics disciplines (for example, statistics). There are many possible course paths, and each student's course for the succeeding year is based on a careful analysis of the student's performance in the current course.

Grade 9	Algebra 1/A	Algebra 2/Trig	Algebra 2/Trig Honors
	▼	▼	▼
Grade 10	Geometry/A Geometry Honors Algebra 2/Trig* Geometry Geom/A & Alg2/Trig (*after summer Geometry)	Geometry/A Geometry Honors Pre-Calculus Honors* AP Pre-Calculus (*after summer Geometry)	Geometry/A Geometry Honors Pre-Calculus Honors AP Pre-Calculus (*after summer Geometry)
	▼	▼	▼
Grade 11	Algebra 2/Trig Algebra 2/Trig Honors Algebra 2 Pre-Calculus Honors AP Pre Calculus	Pre-Calculus Honors AP Pre-Calculus Calculus Honors AP Calculus AB Statistics Honors AP Statistics	Pre-Calculus Honors AP Pre-Calculus Calculus Honors AP Calculus AB AP Calculus BC Statistics AP Statistics
	▼	▼	▼
Grade 12	Pre-Calculus Honors AP Pre-Calculus Calculus Honors AP Calculus AB College Math Topics Statistics and Applied Math Statistics Honors AP Statistics	Calculus Honors AP Calculus AB AP Calculus BC College Math Topics Statistics Honors AP Statistics Statistics and Applied Math	Calculus Honors AP Calculus AB AP Calculus BC Multivariable Calculus Linear Algebra Statistics AP Statistics

3110 ALGEBRA 1/A**9 YR 1.0 cr**

This course covers fundamental algebra in-depth. Topics include: the language of algebra; properties of real numbers; solving equations and inequalities in one and two variables; multiplying and factoring algebraic numbers; rational numbers and irrational numbers; solving equations involving rational and irrational numbers; solving systems of linear equations and linear inequalities and their graphs; simplifying radical terms, and solving equations by factoring. Word problems concerning distance, rate and time, percentages, interest, geometric figures, and number problems are taught as they occur in the text. Students are introduced to the graphing calculator with linear equations and solving systems of linear equations. *The class is paced so that students can enter an honors class in tenth grade or continue the four-year college-prep mathematics program.* **NCAA**

3309 ALGEBRA 2/TRIGONOMETRY**9 YR 1.0 cr**

Prerequisites: Placement in this course is based on the results of the Diocesan Algebra Exemption Exam.

Beginning with a review of the basics of first-year algebra, the students are led to a more detailed study of the polynomial and the concept of functions. Topics that are presented for study include exponents, radicals, factoring, rational expressions, quadratic equations, and complex numbers. The fundamentals of trigonometry are presented in the fourth quarter. **NCAA**

3350 ALGEBRA 2/TRIGONOMETRY HONORS**9-11 YR 1.0 cr**

Prerequisites: B in Geometry Honors; A in Geometry/A and A in Algebra 1/A or departmental approval. For students entering the 9th grade, placement in this course is based on the results of the Diocesan Algebra Exemption Exam.

This course begins with a review of the basic concepts of first-year algebra followed by the topics of Algebra 2. These topics include: linear functions and relations, systems of equations and inequalities, matrices, quadratic functions, exponential and logarithmic functions, polynomial functions, rational and radical functions, statistics and conic sections. The study of trigonometry, which takes place in the fourth quarter includes radian measure, trigonometric functions and identities, and solving general triangles. As an honors level class, this course will include a significant number of theoretical problems and students are expected to draw on skills mastered in prerequisite courses with minimal review. **NCAA**

3220 GEOMETRY/A**10 YR 1.0 cr**

Prerequisites: B- in Algebra 1/A; C in Algebra 2/Trig.

This course is an axiomatic approach to the basic theorems of Euclidean geometry. It uses an integrated approach to the study of plane and solid geometry, including proofs. Included in the course is a study of the areas and volumes of two-dimensional and three-dimensional figures. A thorough study of the right triangle is taught as a brief introduction to trigonometry. *This course must be completed by the end of grade 10. A section of this class is available in the summer after 9th grade for students who have earned an A or A+ in Algebra 1/A and seek to study Calculus in their senior year.* **NCAA**

3280 GEOMETRY**10 YR 1.0 cr**

Prerequisites: C in Algebra 1/A or departmental approval.

This course is an axiomatic approach to the basic theorems of Euclidean geometry. It uses an integrated approach to the study of plane and solid geometry, including proofs. A study of the areas and volumes of two-dimensional and three-dimensional figures is included in the course. A thorough study of the right triangle is taught as a brief introduction to trigonometry. This is a complete course in geometry using hands-on work to discover the concepts of geometry. *This course must be completed by the end of grade 10. NCAA*

3230 GEOMETRY HONORS**10 YR 1.0 cr**

Prerequisites: B- in Algebra2/Trig Honors; B+ in Algebra2/Trig; A+ in Algebra 1/A; or department approval

This course is an axiomatic approach to the basic theorems of Euclidean geometry. It uses an integrated approach to the study of plane and solid geometry, including proofs. Included in the course is a study of the areas and volumes of two-dimensional and three-dimensional figures. A thorough study of the right triangle is taught as a brief introduction to trigonometry. This course is taught at a rigorous pace with significant emphasis on proofs. Course content also includes construction, loci, coordinate geometry, and transformations. As an honors level class, this course will include a significant number of theoretical problems. *This course must be completed by the end of grade 10. NCAA*

3300 ALGEBRA 2/TRIGONOMETRY**10-11 YR 1.0 cr**

Prerequisites: B- in Algebra 1/A; or departmental approval. Students with a C or C+ in Algebra 1/A wishing to take this course must pass an approved online Algebra 1 refresher over the summer.

Beginning with a review of the basics of first-year algebra, the students are led to a more detailed study of the polynomial and the concept of functions. Topics that are presented for study include exponents, radicals, factoring, rational expressions, quadratic equations, and complex numbers. The fundamentals of trigonometry are presented in the fourth quarter. **NCAA**

3380 ALGEBRA 2**11-12 YR 1.0 cr**

Prerequisites: C in Algebra 1 and Geometry or department approval with completion of summer Algebra enrichment course.

This course is required for students who have completed Algebra 1 and Geometry and do not meet the prerequisites for Algebra 2/Trig. Building upon the basic elements of first year algebra, this course develops a full range of Algebra 2 concepts. Topics include polynomials and the concept of functions, exponents, radicals, factoring, rational expressions, quadratic equations, complex numbers, conic sections, probability, and an introduction to the basic elements of trigonometry. **NCAA**

3400 COLLEGE MATH TOPICS**11-12 YR 1.0 cr***Prerequisites: C in Geometry and C in Algebra 2 or Algebra 2/Trig.*

This course is designed to introduce students to new concepts in mathematics including right triangle trigonometry, set theory, logic, number representation and probability. Students improve upon skills previously acquired in Algebra 1, Algebra 2 and Geometry through application to practical problems that model “real world” challenges. Students continue to develop their mathematical skills in problem solving, inductive and deductive reasoning, voting and apportionment methods, graphing, mathematical modeling, number theory, and linear programming. This is a course primarily designed for seniors who wish to apply their mathematical skills in science, business, financial management, statistics and surveys. **NCAA**

3410 PRE-CALCULUS**10-12 YR 1.0 cr***Prerequisites: B- in Algebra 2/Trig; C in Algebra 2/Trig Honors.*

This course is intended for students who wish to continue a college prep math curriculum beyond Algebra 2/Trig to challenge themselves or help prepare them for a subsequent math course in college or in their next year of high school. Topics covered are: a review of linear and quadratic functions, polynomial functions and their inverses, exponents and logarithms and trigonometry with a concentration on radian measure, sequences and series. **NCAA**

3450 PRE-CALCULUS HONORS**10-12 YR 1.0 cr***Prerequisites: A- in Algebra 2/Trig; B- in Algebra 2/Trig Honors.*

This course is intended for students who wish to continue a college prep math curriculum beyond Algebra 2/Trig and subsequently take a calculus course. Topics covered are: a review of linear and quadratic functions, polynomial functions and their inverses, conic sections, exponents and logarithms and trigonometry with a concentration on radian measure, series, sequences, limits, and combinatorics. **NCAA**

3460 AP PRE-CALCULUS**10-12 YR 1.0 cr***Prerequisites: B+ in Algebra 2/Trig Honors; A in Algebra 2/Trig with teacher recommendation.*

This course is intended to prepare students for taking an AP Calculus class. Topics include linear and quadratic functions, polynomial functions and inverses, exponents and logarithms and trigonometry, series, sequences, limits, and graphing techniques using transformations. This course is enriched with an introduction to derivatives. This course will include a significant number of theoretical problems. Students are expected to draw on skills mastered in prerequisite courses with minimal review. **NCAA**

3510 CALCULUS HONORS**11-12 YR 1.0 cr***Prerequisites: B in Pre-Calculus Hnrs; C in AP Pre-Calculus; or department approval.*

This course is intended for the student who would like an introduction to calculus without the pressure of an Advanced Placement pace. Without the need for an extended review to prepare for the AP exam in the spring, this course covers all the computational skills and application concepts of Calculus AB but with more time to explore each topic. See 3550 AP Calculus AB for the list of skills and applications for this course. **NCAA**

3550 AP CALCULUS AB**11-12 YR 1.0 cr**

Prerequisites: B in AP Pre-Calculus; or department approval.

This college level calculus course culminates with the Advanced Placement test in AB Calculus in May. The concepts of limits and continuity are developed into differential calculus, covering the derivative geometrically, numerically and analytically. Derivatives of trigonometric, exponential, logarithmic and inverse functions, the chain rule, and implicit differentiation are studied. Applications of derivatives include curve analysis, related rates, growth and decay, and velocities and accelerations. Second semester topics include: integral calculus; the computations of various Riemann sums and applications of integral calculus including topics such as area between curves; rotations of solids and average value. In addition to the curriculum outlined by the College Board, this course is enriched with additional calculus topics. All students must take the AP Calculus AB exam in May. *A summer project reviewing pre-calculus topics is also required. NCAA*

3560 AP CALCULUS BC**11-12 YR 1.0 cr**

Prerequisites: C in AP Calculus AB; B+ in Calculus Hnrs; A+ in AP Pre-Calculus; or department approval. Students from AP Pre-Calculus must score a 5 on the AP Pre-Calculus exam: students not achieving that score will be scheduled for AP Calculus AB.

This college level calculus course culminates with the Advanced Placement test in Calculus BC in May. The concept of differential calculus is developed, including the derivatives of polynomial, trigonometric, exponential, and logarithmic functions, and their inverses are studied. Rules for differentiation and applications of derivatives are studied, including the chain rule, implicit differentiation, curve analysis, related rates, growth and decay, and kinematics. Numerical methods such as Euler's method and Newton's method are also covered. Second semester topics include: integral calculus and applications of integral calculus including topics such as area between curves; rotations of solids and average value of a function. Numerical integration methods such as Riemann sums are also presented. Additionally, the course includes multivariable calculus, vector calculus, Taylor and Maclaurin series representations of functions, and polar curves. All students must take the AP Calculus BC exam in May. For any student enrolled in AP Physics C, it is highly recommended to enroll in AP Calculus BC concurrently. *A summer project reviewing pre-calculus topics is also required. NCAA*

3575 MULTIVARIABLE CALCULUS/DIFFERENTIAL EQUATIONS 11-12 YR 1.0 cr

Prerequisites: B in Calculus BC; A in Calculus AB; or department approval. Students from Calculus AB must score 3 or higher in the AP Calculus AB exam. Students not achieving those scores will be scheduled for AP Calculus BC.

This honors level study of multivariable calculus includes elementary three-dimensional geometry, vector-valued functions, partial differentiation, multiple integration, and computations using Green's, Stokes', and Divergence Theorems. Students are introduced to the appropriate use of computer algebra software to create three-dimensional graphs and to perform difficult numerical integration. After covering multivariable calculus, various topics in differential equations will be introduced, including solutions to first and second order differential equations, the Laplace Transform, systems of differential equations, Fourier Series, and boundary value problems. The course contains a heavy focus on applications to science and engineering, including topics such as fluid mechanics, heat transfer, mechanical vibrations, and control theory. *A TI-83, TI-84 or any of the college board approved TI-Nspire graphing calculators is required. This course is available for dual credit through Marymount University.*

3580 LINEAR ALGEBRA AND PROOF TECHNIQUES HONORS 11-12 YR 1.0 cr

Prerequisites: B in Calculus BC; B+ in Calculus AB; or department approval.

Linear Algebra provides an introduction to proofs through the study of real vector spaces, linear transformations, matrices, determinants, eigenvalues, and eigenvectors. The course will be proof based with an emphasis on concepts and logic. A TI-83, TI-84, or any of the college board approved TI-Nspire graphing calculators is required. Students with access to Excel spreadsheet may use that instead of a TI-Series calculator. *This course may be taken simultaneously with 3570 Multivariate Calculus or AP Calculus BC . This course is available for dual credit through Marymount University. NCAA*

3610 STATISTICS HONORS 11-12 YR 1.0 cr

Prerequisites: B in Algebra 2/Trig; C in AP or Honors Pre-Calculus.

An introduction to probability and statistics at a pre-calculus level, this course provides an opportunity to explore and understand the statistics encountered daily in life. Emphasis is on basic concepts including organizing and displaying data, averages and variation, probability theory, binomial probability distribution, normal and sampling distribution, estimation and hypothesis testing. Statistics involves applied mathematics with meaningful problems preparing the student for all fields of college study. *This course is available for dual credit through Marymount University. NCAA*

3620 STATISTICS AND APPLIED MATH 11-12 YR 1.0 cr

Prerequisites: B- in College Math Topics; C- in Algebra 2/Trig; B in Algebra 2..

This course is designed for students who want to learn life skills and improve observation skills using practical math and statistics. Students learn statistical modeling and related mathematical concepts in order to apply this knowledge to a variety of topics in areas such as odds and probability, randomization and survey analysis, accounting and finance, music and the arts. **NCAA**

3650 AP STATISTICS

11-12 YR 1.0 cr

Prerequisites: B+ in Pre-Calculus Honors; B- in AP Pre-Calculus.

This college level, pre-calculus-based statistics course introduces students to the major concepts and tools for collecting, analyzing, and drawing conclusions from data. The course culminates with the Advanced Placement Test in Statistics in May. The students interpret univariate data, explore bivariate data, and learn probability theory, the normal curve, confidence intervals, and tests of significance, adhering to the curriculum outlined by the College Board. **NCAA**

SCIENCE

The science department ensures that students learn and practice critical concepts in biology, chemistry, physics and engineering in order to better understand the scientific principles that govern the way the world operates and gain insight into the nature of God. An emphasis is placed on developing laboratory, critical thinking and problem solving skills and fostering an attitude of inquiry and investigative thought, while staying current with a world of ever-expanding scientific knowledge and technology.

The science department offers the courses necessary to meet the needs of the science education of a college preparatory student. These courses are offered at college prep, honors and AP levels. All science courses meet or exceed the guidelines recommended by the Virginia Standards of Learning and the National Science Foundation.

COURSE COMPLETED	NEXT COURSE OPPORTUNITIES	ADDITIONAL ELECTIVES (11, 12)
Biology 1 (9, 10)	Chemistry Chemistry Honors Intro to Engineering Design	Principles of Engineering <i>Open to Grades 10-12 with completion of Alg2/Trig</i> Genetics Honors (SEM) Biotechnology - Microbiology Honors (SEM) Organic Chemistry Honors (SEM) Science and Faith Honors (SEM) <i>Open to Grades 11-12 with completion of Biology & Chemistry</i> Independent Research <i>Open to Grades 10-12 with department approval</i>
Biology 1 Honors (9)	Chemistry Chemistry Honors Chemistry Honors AND AP Biology	
Intro to Engineering (10)	Chemistry	
Chemistry (w/Alg 2/Trig) (10, 11)	Physics Physics Honors AP Physics 1 AP Biology AP Chemistry Anatomy/Physiology Anatomy/Physiology Honors Principles of Engineering	
Chemistry Honors (10, 11)	Physics Physics Honors AP Physics 1 AP Biology AP Chemistry AP Environmental Science Anatomy/Physiology Anatomy/Physiology Honors Principles of Engineering	
Chemistry (w/Alg 2) (11)	Anatomy/Physiology Anatomy-Physiology Honors Ecology	
Physics (11, 12)	AP Biology AP Chemistry AP Environmental Science Anatomy/Physiology Anatomy/Physiology Honors Ecology Principles of Engineering	
Physics Honors or AP Physics 1 (11, 12)	AP Physics C AP Biology AP Chemistry AP Environmental Science Anatomy/Physiology Anatomy/Physiology Honors Principles of Engineering	

4200 BIOLOGY 1

9-10 YR 1.0 cr

Biology 1 is a lab-based introductory college preparatory course in which a philosophical and scientific approach are used in order to better understand the role and dignity of human beings within the context of creation. This course provides a broad overview and introduction to the following topics: ecology, molecular biology, genetics, biotechnology, bioethics and evolution. Labs and computer-based activities are an integral part of this course. **NCAA**

4210 BIOLOGY 1 HONORS

9-10 YR 1.0 cr

Prerequisites: HSPT Composite ≥ 90 with an A in Science 8 and a B in Algebra 1; or results of English honors qualifying exam.

Biology 1 Honors is a course intended for students who exhibit an above average interest and ability in science and a sufficient level of academic maturity. This is an introductory course which utilizes the molecular approach to the study of biology. A current, comprehensive background of biology is presented so that the student may make intelligent decisions concerning topics such as growth and development, evolution, genetic engineering, cellular energy, and DNA. The course relies heavily on daily readings and study and includes laboratory experiences with emphasis on experimental design, critical thinking, and problem-solving skills. **NCAA**

4000 INTEGRATED BIOLOGY AND ENGLISH (IBE)

9 YR 2.0 cr

Prerequisites: Students must meet qualifications for Biology 1 Honors. This is not an English 1 Honors course.

IBE is an interdisciplinary course that integrates Biology 1 Honors (4210) and English 1 (1100) with an authentic community-based field research program. This integrated course, which maintains the full content of both Honors Biology (4210) and English 1 (1100) curricula, is designed to capitalize on the natural connections between these science and language arts courses through an ongoing interdisciplinary research project focused on local environmental issues. Informational writing and technology are used to enhance students' conceptual understanding and real-world problem solving skills. This course is designed for students with above average academic maturity and ability, a strong interest in both science and effective communication, and a commitment to a collaborative work ethic. This Biology Honors/English 1 integration links the two courses through an on-going research project, at the same time preserving the distinctive components of each discipline. Students earn 1.0 credit in Biology 1 Honors (4210) and 1.0 credit in English 1 (1100). **NCAA**

The Biology 1 Honors (4210) component of this course emphasizes the molecular approach to the study of biology including chemistry for biology students, cell biology, bioenergetics, heredity, molecular genetics, evolutionary biology, diversity of organisms, and ecology as major units of study. A current, comprehensive background of biology is presented. The course relies heavily on daily readings and study and includes laboratory experiences with emphasis on experimental design, critical thinking, and problem-solving skills.

The English 1 (1100) component of this course includes instruction in both language skills and literature. The literature program introduces students to the various literary genres, providing study in the epic, short story, novel, poetry, and drama. The course emphasizes critical reading and critical thinking skills, supplementing the college prep English 1 experience with opportunities for technical writing and research. Vocabulary study is stressed and is taken from the reading, as well as supplementary sources. **NCAA**

4300 CHEMISTRY**10-12 YR 1.0 cr**

Prerequisites: Sophomores - C in Biology; B in Algebra 1/A. Co-requisite: Algebra 2/Trig. Juniors/Seniors - C in Biology. Co-requisite: Algebra 2 or Algebra 2/Trig.

This is an introductory general chemistry course designed for a well-rounded liberal arts education. The composition and behavior of matter and energy are the focus. Students are expected to develop problem-solving skills which are both mathematical and conceptual. Laboratory experiences are designed to enhance and reinforce classroom instruction. **NCAA**

4350 CHEMISTRY HONORS**10-12 YR 1.0 cr**

Prerequisites: B- in Algebra 2/Trig Honors or B+ in Algebra 2/Trig and B in Biology Honors; A in Biology or department approval. Co-requisite: Algebra 2/Trig Honors.

This course is a college preparatory introduction to the study of matter which emphasizes conceptual understanding as well as in-depth mathematical problem-solving. The course curriculum includes: states of matter, kinetics, equilibrium, atomic theory, acids and bases, and other selected topics. Additional time is scheduled for laboratory experiences to support classroom instruction, to practice inductive reasoning skills, to develop concepts of experimental design; and to emphasize data collection and report writing skills. Students are expected to develop and apply analytical thinking and communication skills to theoretical and applied aspects of chemistry. *A graphing calculator is required. NCAA*

4620 INTRODUCTION TO ENGINEERING DESIGN**10 YR 1.0 cr**

Prerequisites: C in Biology and Algebra 1; or department approval.

Introduction to Engineering Design is a Project Lead the Way course that focuses on the process of engineering design and its application. Through hands-on projects, students apply STEM concepts, understand important standards in the various fields of engineering, and document their work in solving engineering-based problems. Students use industry standard 3-D modeling software to design solutions as well as an engineer notebook for the recording of all data. Students conclude projects by presenting their work to peers and faculty members. *This course fulfills the technology requirement of graduation.*

4250 AP BIOLOGY**11-12 YR 1.0 cr**

Prerequisites: B in Biology Honors and B in Chemistry Honors; B+ in Biology and B+ in Chemistry. Rising sophomores may be invited by the science department to schedule AP Biology with Chemistry Honors based on commitment to a strong work ethic, consistently high grades (A- in Biology Honors, B+ in Algebra 2/ Trig Honors, or A- in Algebra 2/Trig), and advanced lab skills.

The AP Biology curriculum encompasses “four big ideas”: evolution, cellular processes, genetics, and interactions, with essential knowledge and process skills that support each one. AP Biology is a rigorous and demanding course which is equivalent to a full-year introductory college biology course. Content is covered in depth with strong emphasis on scientific process and analytical thinking. In addition, statistical analysis of data and modeling of concepts is expected. Labs, analytical discussion of results, and inquiry during class sessions require significant amounts of study and preparation beyond class time.

Juniors and seniors enrolling in the class are highly encouraged to participate in a two-day summer workshop being offered to review Biology 1 skills and concepts. Students are required to take the AP College Board Biology exam in May. This course fulfills the technology requirement for graduation. NCAA

4400 PHYSICS**11-12 YR 1.0 cr**

Prerequisites: B- in Chemistry and B- in Algebra 2/Trig; A- in Algebra 2 with concurrent enrollment in College Math Topics; or department approval.

This course presents the physics concepts that form a foundation for the studies of science, technology, and engineering and focuses on discovering relationships between facts and the patterns that exist in nature. Demonstrations, laboratory exercises, and problem solving using mathematical and graphical techniques are incorporated into these concepts. There is an emphasis on thinking and reasoning to solve problems and apply what has been learned. **NCAA**

4430 PHYSICS HONORS**11-12 YR 1.0 cr**

Prerequisites: B- in Chemistry Honors and in Algebra 2/ Trig Honors; A- in Chemistry and Algebra 2/Trig; or department approval.

This honors course provides a rigorous analysis of the main principles of classical and modern physics and emphasizes the development of critical thinking and problem-solving strategies. Mathematical reasoning, laboratory experiences, some computer-based, and calculator graphing and programming are utilized in the development of the principles involved and the ability to apply these principles in the solution of problems. Topics include kinematics, dynamics, work, energy, waves, light and optics, mechanics, and electricity. *A programmable graphing calculator is required.* **NCAA**

4460 AP PHYSICS 1**11-12 YR 1.0 cr**

Prerequisites: A- in Chemistry Honors and Algebra 2/Trig Honors.

Co-requisite: AP Pre-Calculus (3460) or Calculus (3510,3550,3560).

AP Physics 1 is an algebra-based, introductory college-level physics course that explores topics such as kinematics, Newtonian mechanics (including rotational motion), work, and energy, impulse and momentum, and harmonic motion. Through inquiry-based learning, students develop scientific critical thinking and reasoning skills. Students are required to take the AP College Board Physics 1 exam in May. *Graphing calculators are required. This course fulfills the technology requirement for graduation.* **NCAA**

4490 AP PHYSICS C**11-12 YR 1.0 cr**

Prerequisites: B+ in AP Physics 1; A in Physics Honors (4430); or department approval.

Co-requisite: Calculus (3510, 3550, 3560, 3570).

Advanced Placement Physics C is designed as a follow-up to an introductory physics course. The curriculum is equivalent to a first year college-level physics course for those students majoring in science and engineering. Emphasis is placed on advanced techniques of problem-solving, including the use of calculus. Students are required to take the two AP College Board Physics C exams in May. **NCAA**

4665 PRINCIPLES OF ENGINEERING**10-12 YR 1.0 cr**

Prerequisites: B- in Algebra 2/Trig. Co-requisite: Physics or department approval.

This Project Lead the Way course emphasizes the underlying principles of engineering and technology. Students apply STEM concepts to real-world problems to develop critical thinking and problem solving skills in four engineering disciplines: civil, mechanical, electrical, and aerospace engineering. Students improve their use of mathematical analysis, computer simulations, and scientific method. Engineers often work as part of a team to plan, design, and supervise the development of a project from conception through completion. This course emphasizes project work and team-based assignments. It is intended for students with strong STEM skills who have an interest in engineering as a career. *This course fulfills the technology requirement for graduation.*

NCAA**4370 AP CHEMISTRY****11-12 YR 1.0 cr**

Prerequisites: B in Chemistry Honors and Algebra 2/Trig Honors; A in Chemistry and Algebra 2/Trig with department approval.

Co-requisite: AP Physics or Honors Physics.

The AP Chemistry course is designed to be the equivalent of the general chemistry course usually taken during the first college year. For some students, this course enables them to undertake, in their first year, second-year work in the chemistry sequence at their institution or to register in courses in other fields where general chemistry is a prerequisite. For other students, the AP Chemistry course fulfills the laboratory science requirement and frees time for other courses. There is a strong emphasis on independent reading and study as well as on laboratory skills. The course provides students with the conceptual framework, factual knowledge, and analytical skills necessary to deal with the rapidly evolving science of chemistry. Students are required to take the AP College Board Chemistry exam in May. *This course fulfills the technology requirement for graduation.* **NCAA**

4290 AP ENVIRONMENTAL SCIENCE**11-12 YR 1.0 cr**

Prerequisites: B in Biology Honors and Chemistry Honors; B+ in Biology and in Chemistry; or department approval.

Co-requisite: Physics, Physics Honors, or AP Physics 1.

This college level interdisciplinary course integrates scientific principles of chemistry, biology, and earth science to understand interrelationships of the natural world. The class explores topics such as ecology, populations, resource use, pollution, and biodiversity. Environmental problems, both natural and man-made, are identified and analyzed in classroom lectures, labs, field work, and independent projects. This course prepares students for the required AP Environmental Science exam in May. **NCAA**

4270 ECOLOGY**11-12 YR 1.0 cr***Prerequisites: C- to B in Biology and Chemistry.*

In Ecology, students study how populations of organisms are affected by competing organisms, symbiotic relationships, predator/prey interactions, evolutionary changes, and interactions with humans. Unique characteristics of terrestrial and aquatic ecosystems are examined including plant and animal species, ecosystem services, and primary productivity. Students learn how humans have affected ecosystems and what conservation efforts are being undertaken to preserve the Earth's biodiversity. During fourth quarter, students focus in greater detail on local ecosystems by studying the characteristics of Eastern forests and learning to identify local tree and animal species.

NCAA**4500 ANATOMY & PHYSIOLOGY****11-12 YR 1.0 cr***Prerequisites: C in Biology and Chemistry.*

Anatomy and physiology is the study of the structure and function of the body. The course begins with a review of basic cell concepts, including cell structure, cell reproduction, and protein synthesis. The class then examines major tissue types before discussing each of the organ systems in detail. Health issues such as immunity, common genetic disorders, and cancer are also investigated. Projects and laboratory activities enhance the learning experience. **NCAA**

4530 ANATOMY & PHYSIOLOGY HONORS**11-12 YR 1.0 cr***Prerequisites: B in Chemistry with a B in Biology Honors or an A in Biology 1; or department approval.*

This course is designed for students who have demonstrated an above average proficiency in previous science courses. Anatomy and physiology is the study of the structure and function of the body. The course begins with a review of basic cell concepts, including cell structure, cell reproduction, and protein synthesis. The class then examines major tissue types before discussing each of the organ systems in detail. Health issues such as immunity, common genetic disorders, and cancer are also investigated. This course requires a significant amount of additional reading and the completion of several in-depth projects and laboratory activities. **NCAA**

4555 GENETICS HONORS**11-12 SEM .5 cr***Prerequisites: B in Biology Honors or B+ in Biology 1; B in Chemistry Honors or B+ in Chemistry; or department approval.*

Genetics is the study of inheritance and how genes act to produce the characteristics of a living organism. In this course, students learn about the principles of inheritance. Genetics is a laboratory class that emphasizes problem-solving, decision-making, and critical thinking. Emphasis is placed on the (1) molecular basis of heredity, (2) molecular structure and replication of genetic material, (3) patterns of Mendelian and non-Mendelian inheritance, (4) genetic diseases, and (5) biotechnological applications. Related bioethical questions are discussed as they arise. **NCAA**

4565 BIOTECHNOLOGY-MICROBIOLOGY HONORS 11-12 SEM .5 cr

Prerequisites: B in Biology Honors or B+ in Biology 1; B in Chemistry Honors or B+ in Chemistry; or department approval.

Students in this course will develop an understanding of basic scientific principles in biology and chemistry with an emphasis on laboratory techniques and procedures such as solution and media preparation, serial dilutions, electrophoresis, chromatography, maintenance of cells in culture and quality control techniques. Labs will be a major focus of the course to foster professional science skills used in clinical laboratories. Topics in microbiology include the history of microbiology, morphology and physiology of microorganisms, pathogenicity and diseases and environmental and applied microbiology. Labs will explore growth of bacteria, preparing growth media, proper use of incubators, exploration of microbial populations and energetics, and advanced techniques for handling cell cultures. *This course fulfills the technology requirement for graduation. NCAA*

4645 ORGANIC CHEMISTRY HONORS 11-12 SEM .5 cr

Prerequisites: B in Chemistry Honors, A in Chemistry.

This course is designed for motivated students who hope to pursue careers in chemistry, biochemistry or medicine. Students are introduced to nomenclature, synthesis, characterization, and reactions of organic molecules. The course includes the study of infrared, UV-Visible, and Raman spectroscopy, molecular orbital theory, liquid and gas chromatography, fluorescence, refractometry, mass spectrometry, and nuclear magnetic resonance spectroscopy. Student are required to read peer-reviewed scientific journal articles to learn about current research in the field. Laboratory activities provide students with significant hands-on experience. **NCAA**

4575 SCIENCE AND FAITH HONORS 11-12 SEM .5 cr

Prerequisite: B in one or more Honors or AP level science classes. Note: Completion of a pre-course assignment is required.

The purpose of this semester course is to allow students to develop a personal spiritual perspective regarding scientific study. Efforts are made to build an understanding of the compatible relationship between faith and scientific thinking. The course includes study of the processes involved in scientific thinking and acquiring theological knowledge, the effect of individuals' experiences and worldviews, a historical perspective of the relationship between faith and science, ways in which scientific knowledge supports faith and in which scripture supports science, God's revelations to us through the study of our natural world, and how scientists of faith today can serve God through their scientific work. The course consists of five instructional units and a culminating research project.

4700 INDEPENDENT RESEARCH

10-12 YR 1.0 cr

Prerequisite: Approval from department chairperson and Independent Research Coordinator.

This course is designed to give students the opportunity to perform in-depth scientific research on a particular topic. Emphasis is placed on experimental design, laboratory skills, library research, and computer technology. Appropriate forms of statistical analysis are taught and utilized for research purposes. Students are required to produce a project/paper for submission to regional science fairs, the Virginia Junior Academy of Science, and competitions such as Intel and Toshiba. Networking with area universities and scientific agencies is encouraged. Students who wish to be considered for this course must exhibit a strong, independent work ethic, consistently high grades and advanced lab skills. Students should also understand that this course will likely require significant work outside of normal school hours. *This elective course does not fulfill the science requirements for graduation.*

SOCIAL STUDIES

	REQUIRED COURSES	ELECTIVES
Grade 9	<p>5100 World History 5150 World History Honors</p>	
Grade 10	<p>5175 World Geography 5965 Fundamentals of Economics (SEM) 5280 African American History (SEM) 5265 Poverty and the Developing World (SEM) 5282 World Religions and Social Customs (SEM) 5245 European History Honors 5240 AP European History</p>	
Grade 11	<p>5300 U.S. & Virginia History 5320 U.S. & Virginia History Honors 5350 AP U.S. History</p>	<p>5510 AP Economics 5590 AP Psychology 5580 Psychology 6049 AP Art History 6860 Humanities Honors</p>
Grade 12	<p>5405 U.S. Government with Foreign Affairs 5415 U.S. Government with Advocacy/ Public Policy 5425 U.S. Government with Social Justice 5440 U.S. Government Honors with Foreign Affairs 5430 U.S. Government Honors with Advocacy /Public Policy 5465 AP U.S. Government and Politics</p>	<p>5190 AP Human Geography (SEM) 5470 AP Comparative Government and Politics (SEM) 5625 Introduction to Criminal Justice (SEM) 5765 Issues for the 21st Century (SEM) 5280 African American History (SEM) 5515 International Business (SEM) 5965 Fundamentals of Economics (SEM) 5745 The U.S. at War and Peace (SEM) 5770 Intro to Philosophy Honors (SEM)</p>

The Social Studies Department desires to transform students into informed, faith-filled citizens, able to navigate a global community. We seek to affirm the whole person through a deeper understanding of the social and cultural events of the past and the present, as well as through a greater comprehension of both domestic and global issues. To reach this goal, we are committed to providing challenging and engaging learning experiences for students by employing creative pedagogies and leveraging the use of a variety of instructional technologies.

It is our faith that leads us and our Church that calls us to a different kind of political engagement: one shaped by the moral convictions of well-formed consciences and focused on the dignity of every human being, the pursuit of the common good, and the protection of the weak and the vulnerable. As a key part of the curriculum, each student

is offered opportunities to engage in citizenship and advocacy. These opportunities expand civic knowledge, develop participation skills, and support the belief that, in a democracy, the actions of each person make a difference. Throughout the social studies curriculum, students are given a chance to apply their faith-based civic knowledge, skills and values as they work to discuss real issues in the nation and the world.

5100 WORLD HISTORY

9 YR 1.0 cr

World History is a survey course covering the major political, economic, social, religious, and cultural developments of the peoples of the world. The course is presented chronologically, beginning with prehistoric times and continuing into modern times. Emphasis is placed on the development of Western civilization, but students are also introduced to the major achievements of non-Western civilizations and cultures woven into the continuing development of humanity. Social studies skills such as analysis, interpretation, and evaluation are explored and practiced by the students. **NCAA**

5150 WORLD HISTORY HONORS

9 YR 1.0 cr

Prerequisites: HSPT reading scores ≥ 90 and an A in Social Studies 8; or placement in English 1 honors.

This course provides students with a challenging and stimulating view of world history. Beginning with human origins and the earliest civilizations, the course develops an in-depth knowledge of the human presence in the world along the path of history through the present. Emphasis is placed on the development of Western civilization, but students are also introduced to the major achievements of non-Western civilizations and cultures woven into the continuing development of humanity. Instructional format is multifaceted with the use of lectures, questioning and exchange, independent research using the Internet, and frequent written assignments (projects and papers) based on the student's research. **NCAA**

5245 EUROPEAN HISTORY HONORS

10-12 YR 1.0 cr

Prerequisites: B in World History Honors; A- in World History; and B in current English class; or department approval.

This course studies European history from the origins of the Renaissance to the fall of Eastern European communism, the reunification of Germany, and the movement to create a united Europe. Emphasis is placed on analysis of primary source materials, development of analytical reading skills, coherent essay writing, and independent thought and study skills. Students engage ideas and themes in a variety of ways including project-based learning and guided research. **NCAA**

5240 AP EUROPEAN HISTORY

10 YR 1.0 cr

Prerequisites: A+ in World History; or B+ in World History Honors and B+ in current English class; or department approval. A writing sample may be required.

The course studies the history of Europe from the origins of the Renaissance to the fall of Eastern European communism, the reunification of Germany, and the movement to the creation of a united Europe. Emphasis is placed on analysis of primary source materials, development of analytical reading skills, coherent essay writing, and independent thought and study skills. All students enrolled in this course are required to take the AP European History exam in May. *The completion of a summer project is required by the beginning of school.* **NCAA**

5175 WORLD GEOGRAPHY**10-12 YR 1.0 cr***Prerequisites: Completion of World History or World History Honors.*

This course focuses on the world's peoples, places, and environments. The knowledge, skills, and perspectives of the course are centered on the world's peoples and their cultural characteristics, landforms and climates, economic development, and migration and settlement patterns. Spatial concepts of geography are used as a framework for studying interactions between humans and their environments. Using geographic resources and current events, students employ inquiry, research, and technology skills to ask and answer geographic questions. Particular emphasis is placed on students' understanding and applying geographic concepts and skills to their daily lives. **NCAA**

5965 FUNDAMENTALS OF ECONOMICS**10-12 SEM .5 cr**

This multi-faceted economics course emphasizes real-world applications. Lessons are designed and developed to give students an opportunity to examine principles of economics and business. Students are instructed in the basic tenets of the American free enterprise system and explore its place in the larger global market. Work on computer simulations relating to both micro and macroeconomics is an integral part of the coursework. **NCAA**

5280 AFRICAN AMERICAN HISTORY**10-12 SEM .5 cr**

This is a survey course of African American history. Topics include accomplishments of African civilizations before first contact with Europeans, the trans-Atlantic slave trade (including its impact on the world economy), slavery, African Americans in the Civil War, the abolition of slavery, Reconstruction, Jim Crow and segregation, the Great Migration, the Harlem Renaissance, the civil rights revolution, and contemporary issues in the African American community, including the achievement gap, the wage gap, housing discrimination, and overrepresentation/injustices in the criminal justice system. Students also discuss and elaborate on the cultural, religious, and economic contributions that African Americans have made in the modern world. **NCAA**

5265 POVERTY AND THE DEVELOPING WORLD**10-12 SEM .5 cr**

This course explores the issue of poverty, specifically, how poverty manifests itself in the "developing world," a broad, fluid term which encompasses two-thirds of the world's countries and 80 percent of its population. The course begins with an introduction to the Church's teaching on poverty and inequality, specifically how poverty threatens the inherent dignity that all humans possess. In addition to the challenge of poverty, the course explores other issues facing the developing world, including high rates of population growth, gender inequality, political instability, and the economic dependence on the industrial countries in the Northern Hemisphere. **NCAA**

5282 WORLD RELIGIONS AND SOCIAL CUSTOMS**10-12 SEM .5 cr**

This course examines the elements of the world's major religions and the influence of religion on culture. Students are encouraged to re-examine their own faith while reflecting on the founders, major beliefs and practices of Christianity, Judaism, Islam, and the faith traditions of East Asia. The course also explores social customs from around the world and aims to approach history through the lens of everyday human experiences, from their family structures, their approach to work and industry, major holidays and festivals, and recreational activities.

5300 U.S. AND VIRGINIA HISTORY**11 YR 1.0 cr**

United States and Virginia History is a survey course in American history with special emphasis on the history of Virginia. The course traces the development of the political, economic, religious, and social life of the people of the United States from the 15th century to the contemporary period. U.S. relations with foreign countries are explored. The positive influence of Judeo-Christian values in American life is emphasized. Geography is stressed as a factor in the complete understanding of the social development of the country. **NCAA**

5320 U.S. AND VIRGINIA HISTORY HONORS**11 YR 1.0 cr**

Prerequisites: B in European History Honors; A- in current Social Studies class; and B in English; or department approval.

This course involves a study of the formative movements in the development of American civilization within a chronological framework. The course traces the development of the political, economic, religious, and social life of the people of the United States from the 15th century to the contemporary period, with special emphasis on the history of Virginia. Students can expect to use primary and secondary sources to analyze major themes. In addition, as an honors course, students focus on writing and research within the curriculum. Students also use current events, both foreign and domestic, as opportunities to independently research and formulate ideas. **NCAA**

5350 AP U.S. HISTORY**11 YR 1.0 cr**

Prerequisites: B in AP European History, A- in European History Hnrs or A in World History Hnrs; and B+ in English; or department approval. A writing sample may be needed.

This course involves a study of the formative movements in the development of American civilization within a chronological framework. Emphasis is placed on historiography, analysis of primary source materials, development of discriminatory reading powers, coherent essay writing and independent study skills. All students enrolled in this course are required to take the AP U.S. History exam in May. *The completion of a summer project is required by the beginning of school.* **NCAA**

5580 PSYCHOLOGY**11-12 YR 1.0 cr**

Prerequisite: B in current Social Studies class.

This course covers core concepts in psychology, emphasizing the use of the scientific method in social science research and the physiological bases of behavior. Topics covered in the first semester include the brain, sensation and perception, states of consciousness (sleep/dreams/hypnosis/daydreams), memory and learning. During the second semester the course covers human development, personality disorders, therapy and social psychology. Students should expect a rigorous curriculum based on systematic and scientific studies of challenging course material. **NCAA**

5590 AP PSYCHOLOGY**11-12 YR 1.0 cr**

Prerequisites: B in AP European History or AP U.S. History, or B+ in European History Honors or U.S. History Honors, or A in current Social Studies; B in current English; B in Biology or Chemistry; or departmental approval.

The AP Psychology course is designed to introduce students to the systematic and scientific study of the behavior and mental process of human beings and other species. Students are exposed to the psychological facts, principles, and phenomena associated with each of the major subfields within psychology. Additionally, students study and implement the ethics and methods psychologists use in their science and practice. At the completion of the course, students are required to take the AP Psychology exam. **NCAA**

6049 AP ART HISTORY**11-12 YR 1.0 cr**

Prerequisites: B+ in English, Fine Arts and Social Studies classes; or department approval.

What is art? This college level course explores the history of the art of the world from the prehistoric era to the present. The class addresses stylistic development and cultural values, as well as the historical context that influence artistic production and practice. The class uses an interdisciplinary approach to discuss style, content, meaning, patronage, faith, interpretation, context, and significance of works of art, preparing students for the AP Art History exam in May which all students enrolled in the class are required to take. The course includes one research paper. *This course also satisfies the fine arts credit.* **NCAA**

6860 HUMANITIES HONORS**11-12 YR 1.0 cr**

Prerequisites: B+ in English, B in English Honors/AP, or recommendation from current Social Studies and/or art teacher.

This elective honors course presents artistic patterns of relationships from ancient Greece to the present among philosophy, literature, architecture, sculpture, painting and music—all in light of the major historical events of each period. Content focuses on the interrelationships between arts and ideas in the framework of their proper historical and cultural settings. *This class also satisfies the fine arts credit.* **NCAA**

5510 AP ECONOMICS**11-12 YR 1.0 cr**

Prerequisites: B+ in current Social Studies class; B in current Mathematics and English.

This is a full-year college first-year level course concentrating on an analytical rather than a descriptive approach to the principles of economics. The major aspects of macroeconomics are: economic models, inflation, unemployment, GDP accounting, aggregate demand/supply analysis, the banking system, monetary and fiscal policy and competing theories of income stabilization. The study of microeconomics includes: demand and supply, markets, price theory, elasticity, costs of the business firm, models of pure competition, monopoly, monopolistic competition and oligopoly, international trade and selected topics as time allows. Students are required to take both AP Economics exams administered by the College Board in May. **NCAA**

5190 AP HUMAN GEOGRAPHY**11-12 SEM .5 cr**

Prerequisites: B in AP U.S. History or AP European History; or A- in U.S. History Honors; or A+ in U.S. History; and B+ in current English course; or department approval. A writing sample may be required.

The purpose of the AP Human Geography course is to introduce students to the systematic study of patterns and processes that have shaped human understanding, use, and alteration of Earth's surface. Students learn to employ spatial concepts and landscape analysis to examine human socioeconomic organization and its environmental consequences. They also learn about the methods and tools geographers use in their research and applications. The course material and readings are comparable to college freshman level survey courses in geography. Students are required to take the Human Geography AP exam administered by the College Board in May. **NCAA**

5470 AP COMPARATIVE GOVERNMENT AND POLITICS**11-12 SEM .5 cr**

Prerequisites: B in AP U.S. History; A- in U.S. History Honors; or A+ in U.S. History; and B+ in current English course; or department approval. A writing sample may be required.

This course introduces students to fundamental concepts used by political scientists to study the processes and outcomes of politics in a variety of country settings. The course aims to illustrate the rich diversity of political life, to show available institutional alternatives, to explain differences in processes and policy outcomes, and to communicate to students the importance of global cultural and economic changes. The course covers six specific countries: China, Great Britain, Iran, Mexico, Nigeria, and Russia. This study of culture and politics is intellectually challenging and readings are at the college level. Students are required to take the Comparative Government AP exam administered by the College Board in May. **NCAA**

5755 U.S. CIVIL RIGHTS AND CIVIL LIBERTIES HONORS**11-12 SEM .5 cr**

This course examines the civil rights and liberties in the United States, especially relating to Asian Americans, African Americans, Hispanics, Women, individuals with disabilities and various religious groups. Topics include but are not limited to constitutional freedoms; (i.e., speech, press, religion, assembly, petition), the rights of the accused, and the rights of the disabled. Leaders in the field of Civil rights and Civil liberties are also studied. Students develop a deeper interest in an understanding of these Civil rights and liberties by using the text online sources, class discussions and essays. Student participation and group discussion play important roles in the class. **NCAA**

5625 INTRODUCTION TO CRIMINAL JUSTICE**11-12 SEM .5 cr**

This elective course introduces students to an overview of the United States Criminal Justice system. This course will identify and provide a comprehensive review of law enforcement, judicial process, and corrections. In each of these areas the student will learn history, structure, contemporary issues, and also explore academic programs needed to enter criminal justice careers. **NCAA**

5765 ISSUES FOR THE 21ST CENTURY HONORS**11-12 SEM .5 cr**

This course is an introduction to significant events in the 21st century. Students investigate cause, effect, and change in places across the world. One principal aim of the course is for students to develop a better understanding of the response of traditional societies to the impact of modernization on their values and customs. Another is to examine ideological conflicts of the modern world. Students also research contemporary problems that originated in the 21st century that demand creative and thoughtful solutions. Analytical skills, synthesis of conflicting viewpoints, conducting research, participating in deliberations, and writing historical essays are all emphasized in this course. **NCAA**

5515 INTERNATIONAL BUSINESS**11-12 SEM .5 cr**

Prerequisites: B in current Social Studies class.

In society today decisions in one part of the world impact others thousands of miles away. This course introduces students to the interrelationships between the business and economic practices of countries. Topics include globalization, ethics, investment, marketing, and trade issues. Students consider the decisions made by companies when expanding their operations globally and how they must adapt to local business customs and practices. Current events from around the world and the use of computer applications are an integral part of this course. *This course fulfills the technology requirement for graduation.* **NCAA**

5770 INTRODUCTION TO PHILOSOPHY HONORS**11-12 SEM .5 cr**

The purpose of this semester course is to introduce students to a philosophical way of thinking. The course will achieve this end by learning from the great masters of Ancient Greek Philosophy, by highlighting St. Thomas Aquinas's view of the human person, and examining methods and presuppositions of a few modern and contemporary philosophies. This course will contain investigations into the nature of truth, goodness, knowledge and argumentation, the human person, happiness, and friendship. Through these investigations students will gain a better understanding of themselves, reality as a whole, and how it all fits together.

5745 THE U.S. AT WAR AND IN PEACE**11-12 SEM .5 cr**

This course focuses on the history of U.S. military conflicts from 1861 to the present, including the Civil War, the two World Wars, Cold War-era conflicts like the Vietnam War, and the wars in Iraq and Afghanistan. Students explore the context in which these wars began, the specific military strategies used, and how these wars impacted civilian life on the home front. Special attention will also be given to the role the United States has played in peacekeeping, including the founding of the United Nations, the establishment of the Geneva Convention, and peacekeeping operations in the 1990's in places like sub-Saharan Africa and the Balkans in Europe. **NCAA**

GOVERNMENT SENIOR SEMINARS

As an extension of our mission to expand civic knowledge and discuss global issues, seniors are required to complete a seminar that both educates them on the functions of the U.S. government as well as provides them an outlet to apply that knowledge. In the first semester, students study a range of general concepts used to interpret politics, while gaining a familiarity with the various institutions, groups, beliefs, and ideas that constitute the U.S. government. In the second semester, students are given the opportunity to apply that knowledge in a variety of ways while allowing for a deeper understanding and participation in advocacy and public policy, foreign affairs, and social justice. Students may select from the following courses:

5405 U.S. GOVERNMENT WITH FOREIGN AFFAIRS **12** **YR** **1.0 cr**

This course examines the function of government and the political, social and economic aspects of federal, state and local government in the United States. This course satisfies the government requirements while giving students a deeper knowledge and understanding of the role of the United States in global affairs. Students use their knowledge of the executive branch and the U.S. Department of State to explore current events, focusing on global crises and the American social, political and military response. Topics include current events, recent conflicts, domestic perspectives, and diplomatic relations. The second semester includes guest speakers, field trips, and lively discussion-based seminars. Students can expect to engage in both ongoing relevant issues as well as those from the recent past. **NCAA**

5415 U. S. GOVERNMENT WITH ADVOCACY AND PUBLIC POLICY **12** **YR** **1.0 cr**

This course examines the function of government and the political, social and economic aspects of federal, state and local government in the United States. This course satisfies the government requirements while giving students a deeper knowledge and understanding of effective advocacy and democratic participation. Students explore each level of government while focusing on gaining access to the policy process with the goal of affecting change. Participants gain basic skills in grassroots mobilization, lobbying and negotiation. This is a student-driven, project-based course in which members hear from expert guest lecturers, visit local government entities, engage in real political interaction, and advocate for relevant, social issues appropriate to the school's mission. **NCAA**

5425 U.S. GOVERNMENT WITH SOCIAL JUSTICE **12** **YR** **1.0 cr**

This course examines the function of government and the political, social and economic aspects of federal, state and local government in the United States. This course satisfies the government requirements while introducing students to enduring domestic issues relevant to basic civil rights and liberties. Students use their knowledge of the U.S. Constitution and the Bill of Rights to explore ongoing American current events that require ideological examination and demand creative and thoughtful solutions. Topics are fluid and determined by significant contemporary concerns; however, students can expect some issues, which remain constant and germane to the school's mission to serve as the core curriculum. In the second semester, students can expect to present on current topics, to visit relevant sites and to participate in guest lectures. **NCAA**

**5430 U. S. GOVERNMENT HONORS WITH
ADVOCACY AND PUBLIC POLICY****12 YR 1.0 cr**

Prerequisites: C in AP U.S. History; B in U.S. History Honors; or A in U.S. History; and B in current English; or department approval. A writing sample may be required.

This course examines the function of government and the political, social and economic aspects of federal, state and local government in the United States. This course satisfies the government requirements while giving students a deeper knowledge and understanding of effective advocacy and democratic participation. Students explore each level of government while focusing on gaining access to the policy process with the goal of affecting change. Participants gain basic skills in grassroots mobilization, lobbying and negotiation. As an Honors course, students experience an accelerated pace of instruction, extended scope of topic, and an increased depth of learning. This is a student-driven, project-based course in which members hear from expert guest lecturers, visit local government entities, engage in real political interaction, and advocate for relevant, social issues appropriate to the school's mission. **NCAA**

5440 U.S. GOVERNMENT HONORS WITH FOREIGN AFFAIRS**12 YR 1.0 cr**

Prerequisites: C in AP U.S. History; B in U.S. History Honors; A in U.S. History; and B in current English; or department approval. A writing sample may be required.

This course examines the function of government and the political, social and economic aspects of federal, state and local government in the United States. This course satisfies the government requirements while giving students a deeper knowledge and understanding of the United States role in global affairs. Students use their knowledge of the executive branch and the U.S. Department of State to explore current events, focusing on global crises and the American social, political and military response. Topics include current events, recent conflicts, domestic perspectives, and diplomatic relations. The second semester includes guest speakers, field trips, and lively discussion-based seminars. As an Honors course, students experience an accelerated pace of instruction, extended scope of topic, and an increased depth of learning. Students can expect to engage in both ongoing relevant issues as well as those from the recent past. **NCAA**

5465 AP U.S. GOVERNMENT AND POLITICS**12 YR 1.0 cr**

Prerequisites: B in AP U.S. History; or A- in U.S. History Honors; and B+ in current English; or department approval. A writing sample may be required.

This course examines the function of government and the political, social and economic aspects of federal, state and local government in the United States. As an AP course, special attention will be paid to college-level concepts and writing. Course readings—text, original documents, government reports, and court cases—are at the college freshman level, and students can expect the material to be challenging. As this course follows the AP curriculum, it is a year-long study, but contains individual break-out units on current political events, relevant foreign relations concerns, and advocacy. Students are required to take the AP U.S. Government Exam administered by College Board at the end of the school year. *The completion of a summer project is required by the beginning of school.* **NCAA**

TECHNOLOGY AND BUSINESS

The faculty of the Technology and Business Department is committed to equipping all students with the skills needed to succeed in the fast-changing world of business and technology by providing experiences that are authentic and global, that use technology responsibly in a safe, moral and ethical way, and that focus on fostering critical thinking, problem-solving, collaboration and creativity within the whole person.

Through a variety of electives, members of this department prepare students for success in rapidly-evolving technology and business fields and provide them with a strong foundation for further study at the university level.

Students must earn 0.5 credit hours in technology for graduation.

The following is a list of courses from this department that meet this requirement:

- 7530 Digital Technology: Gateway to Tomorrow (SEM)
- 7110 Personal Branding and Digital Communication (SEM)
- 7260 Accounting Honors
- 7310 Economics and Financial Management
- 7325 Personal Financial Management (SEM)
- 5515 International Business (SEM)
- 7280 Entrepreneurship Honors
- 7920 Cybersecurity 1 (SEM)
- 7930 Cybersecurity 2 (SEM)
- 7820 Data Science (SEM)
- 7775 AP Computer Science Principles
- 7790 AP Computer Science A

BUSINESS COURSES

7310 ECONOMICS AND FINANCIAL MANAGEMENT **11-12 YR** **1.0 cr**

This elective combines Fundamentals of Economics (5965) and Personal Financial Management (7325) into a full-year course. It is a multi-faceted economics and financial management course with emphasis on real-world applications. Students explore exciting and interesting areas that will help them to gain the necessary skills to ensure their future financial security. Students are instructed in the basic tenets of the American free enterprise system and basic economic theory. Using knowledge learned about economics, students discover how to make informed financial decisions. Work on computer simulations that relate to both micro and macroeconomics, participating in a virtual stock market game, and preparing a personal budget are integral parts of the coursework. *This course fulfills the technology requirement for graduation. NCAA*

7260 ACCOUNTING HONORS**11-12 YR 1.0 cr**

Prerequisite: B in Algebra 2/Trig or Algebra 2/Trig Honors.

Accounting Honors uses an integrated, college approach to teach real world accounting. Students first learn how to plan and evaluate for operating, financing, and investing decisions. Students develop the skills to use accounting systems for gathering and providing data to internal and external decision makers. This year-long course includes all topics covered in the first two accounting courses in university business schools. With this course, students majoring in any area of business will be fully prepared to excel immediately in their required accounting courses. *This course fulfills the technology requirement for graduation.*

7325 PERSONAL FINANCIAL MANAGEMENT**11-12 SEM .5 cr**

There are many skills students will need to succeed after graduation that deal with how to handle their personal finances. In this course, students learn how to navigate the financial decisions they will face and how to make informed decisions related to careers, budgeting, banking, credit, insurance, spending, taxes, saving, investing, living independently, and inheritance. Students explore topics of high interest that can help them gain the skills needed to ensure future security. *This course fulfills the technology requirement for graduation. NCAA*

5515 INTERNATIONAL BUSINESS**11-12 SEM .5 cr**

Prerequisites: B in current Social Studies Class.

In society today, decisions in one part of the world affect others thousands of miles away. This course introduces students to the interrelationships between the business and economic practices of countries. Topics include globalization, ethics, investment, marketing, and trade issues. Students consider the decisions made by companies when expanding their operations globally and how they must adapt to local business customs and practices. Current events from around the world and the use of computer applications are an integral part of this course. *This course serves as a social studies elective and fulfills the technology requirement for graduation.*

7375 MARKETING ESSENTIALS**11-12 SEM .5 cr**

This class is designed to introduce students to various aspects of core marketing functions. Students learn how products are brought from an idea to becoming available to consumers. Processes from distribution to pricing to promotion are examined within various industries such as sports, retail, fashion, and entertainment. Students explore technical issues from the marketing perspective along with case studies of real-world examples of marketing. Fundamental business and economic concepts are studied. The importance of ethical concerns and consideration are also explored.

5510 AP ECONOMICS**11-12 YR 1.0 cr**

Prerequisites: B+ in current Social Studies class; B in current Mathematics and English.

This is a full-year college first-year level course concentrating on an analytical rather than a descriptive approach to the principles of economics. The major aspects of macroeconomics are: economic models, inflation, unemployment, GDP accounting, aggregate demand/supply analysis, the banking system, monetary and fiscal policy and competing theories of income stabilization. The study of microeconomics includes: demand and supply, markets, price theory, elasticity, costs of the business firm, models of pure competition, monopoly, monopolistic competition and oligopoly, international trade and selected topics as time allows. Students are required to take the AP Economics exams in May. *This course serves as a social studies elective. NCAA*

7280 ENTREPRENEURSHIP HONORS**11-12 YR 1.0 cr**

Prerequisites: B in current English and Theology classes.

Have you thought about starting your own business someday? This course will help you do just that as you learn about the entrepreneurial skills of decision making, creativity, risk taking, and innovation. Students will create a business plan and understand the steps needed to develop a business from idea to fruition. Students will learn how to live out their own vocation and how to make a positive impact in the workplace and beyond. *This course earns dual credit through Catholic University. It fulfills the technology requirement for graduation.*

TECHNOLOGY COURSES**7530 DIGITAL TECHNOLOGY: GATEWAY TO TOMORROW****9-10 SEM .5 cr**

This project-based course uses a variety of software programs based on evolving technology providing students snippets of tools which could lead them down different educational paths. Students learn to integrate computing concepts that are now essential skills for most career paths. Students apply logic procedures and implement programming procedures, design and develop programs and apps, and learn about the latest technology developments. Some topics that are explored include digital safety and security, Internet of Things and coding. In addition to its general usefulness, this course is also an excellent introductory course for students considering studying computer science, engineering, or business. *This course fulfills the technology requirement for graduation*

7110 PERSONAL BRANDING AND DIGITAL COMMUNICATION**9-11 SEM .5 cr**

Drawing from the school's strong emphasis on Catholic identity, students learn to recognize ethical and moral situations involved with the use of digital communication platforms, enabling them to express a digital footprint with the proper use of social media and develop a positive and professional personal identity or "brand." This project-based course provides students with opportunities to create and utilize a digital portfolio, to develop a skill set essential for success in both college and work environments, and to appropriately communicate using digital tools. Additionally, this course serves as a vehicle for students to present themselves to real world audiences, such as in applications for special programs or scholarships, through the ability to present their "brand" effectively. *This course fulfills the technology requirement for graduation. A section of this class is offered online in the summer for an additional fee.*

7820 DATA SCIENCE**10-12 SEM .5 cr**

Data Science applies computational methods to data (in its various forms: numeric, textual, image, and video) to answer questions about the world. Students will learn how to access, manipulate, analyze, synthesize and enrich data to discover actionable insights and tangible recommendations. Students will identify trends and make predictions by performing interactive data visualization and presentation and then communicate the results. Students will learn to view computer programs as questions to ask of data. Students will form their own questions about the world around them, and learn how to analyze data critically and carefully to find answers and make inferences from factual data. Students will complete a Data Science Workbook as evidence of their learning. (\$20 workbook fee payable in class). *This course fulfills the technology requirement for graduation.*

7915 AP NETWORKING**11-12 YR 1.0 cr**

This course covers the fundamentals of networking and is equivalent to a college-level Introduction to Networking course. The course blends essential networking concepts with relevant, hands-on problem-solving activities to maximize students' understanding of network hardware/software and configuration, the use of protocols to enable reliable and accurate transmission of data around the world, and relevant security practices that secure the transmission of data both within and between computer networks. Topics in this course include network layers, protocols, and addressing, configuring a LAN and methods to establish, maintain, troubleshoot and secure networks in any environment. *Students may be eligible to earn the industry recognized CompTIA Network+ (N10-009) certification with a qualifying score on the AP Exam.*

7905 AP CYBERSECURITY**11-12 YR 1.0 cr**

This course covers foundational cybersecurity concepts and is equivalent to a collegiate Introduction to Cybersecurity course and includes hands-on labs to experience implementing cybersecurity policies and protocols. Students explore the current cyber threat landscape to understand the types of adversaries organizations face and the techniques adversaries use to compromise networked systems and data. Students learn how vulnerabilities create risk and how organizations implement security controls to manage that risk. Topics in the course include assessing risk, configuring security controls, encrypting data, and detecting and responding to cyber attacks. Students complete a cybersecurity research project/prototype for their scientific portfolio as evidence of their knowledge, skills, and abilities in cybersecurity. *With a qualifying score on the AP Exam, students are eligible to earn their industry recognized CompTIA Security+ (SY0-701) certification and begin a career.*

7920 CYBERSECURITY 1**9-12 SEM .5 cr**

This course is designed to provide students with an introduction to the fundamentals of basic computer and network security issues. Students will practice with hands-on labs and challenges to learn Cryptography, Steganography, Password Security, Social Engineering, Network Forensics, Reverse Engineering, File Forensics, Scripting, Hashing, Browser Development Tools, Linux Command Line, Assembly Debugging, and more. To prepare for the CompTIA Security+ certification students will learn practical security problem-solving skills required to: Assess the security posture of an enterprise environment and recommend and implement appropriate security solutions; Monitor and secure hybrid environments, including cloud, mobile, and IoT; Operate with an awareness of applicable laws and policies, including principles of governance, risk, and compliance; Identify, analyze, and respond to security events and incidents. Students will investigate the high-skills, high-wage, and in demand career opportunities in the field of cybersecurity. *This course fulfills the technology requirement for graduation.*

7930 CYBERSECURITY 2**10-12 SEM .5 cr**

Prerequisites: Cybersecurity 1 or equivalent.

This course is designed to provide students with more advanced computer and network security skills. Students will practice with hands on labs and challenges to learn Cryptography, Steganography, Password Security, Social Engineering, Network Forensics, Reverse Engineering, File Forensics, Scripting, Hashing, Browser Development Tools, Linux Command Line, Assembly Debugging, and more. To prepare for the CompTIA Security+ certification students will learn practical security problem-solving skills for operating systems, mobile devices, security, networking, hardware, virtualization and cloud computing. *This course fulfills the technology requirement for graduation.*

7775 AP COMPUTER SCIENCE PRINCIPLES**10-12 YR 1.0 cr**

Prerequisites: B in Algebra 2/Trig; B in Algebra 2/Trig Honors; and completion of a computer or engineering class.

AP Computer Science Principles offers a multidisciplinary approach to exploring the underlying principles of computation. Using the Python programming language as a primary tool and incorporating multiple platforms and languages for computation, this course introduces students to the creative aspects of programming, abstractions, algorithms, large data sets, the Internet, cybersecurity concerns, and computing impacts. AP Computer Science Principles also gives students the opportunity to use current technologies to create computational artifacts for both self-expression and problem solving. Students are required to complete the AP Computer Science Principles through-course assessment and end of course exam administered by College Board in May. *This course uses the Code.org curriculum. Although it does not count toward the science requirement for graduation, it fulfills the technology requirement.*

7790 AP COMPUTER SCIENCE A**11-12 YR 1.0 cr**

Prerequisites: Completion of Pre-Calculus and approval of AP Computer Science instructor. The class will require completion of a summer assignment.

Utilizing the Java Programming language, students advance their study of computer science with an emphasis on developing computer programs or parts of programs to solve problems. Topics include the development and analysis of algorithms, the development and use of fundamental data structures, the design issues that make programs understandable and adaptable, and social and ethical issues in computer science. Students must have access to a network-enabled computer to complete assignments at home, and are required to take the AP Computer Science A exam in May. *This course fulfills the technology requirement for graduation.*

WORLD LANGUAGES

The mission of the world languages department is to equip students linguistically and culturally to communicate successfully in a global society. Students become empowered to communicate across cultures while sharing the Catholic faith with the world. To this end, courses in the department emphasize the five national standards:

- Communicate in the target language
- Gain knowledge and understanding of other cultures
- Connect to other disciplines
- Compare various cultures and realize there are multiple ways of viewing the world
- Participate in multilingual communities in a variety of contexts

These standards are presented within the four basic areas of language learning: listening, speaking, reading and writing.

A four-year sequence of a world language is strongly recommended for those students who meet the requirements. Students who have studied a language in their middle school are given a placement test. No matter the starting level, all students are required to take two years of the same language during grades 9-12 (this does not include middle school language study). Native speakers are interviewed to determine their level of fluency.

GERMAN

2010 GERMAN 1

9-11 YR 1.0 cr

This course aims to develop the four skills of language learning: listening, speaking, reading, and writing. Students will learn vocabulary and grammar necessary to communicate on a novice level. Topics of culture and contemporary events in German-speaking regions are emphasized. **NCAA**

2020 GERMAN 2

10-11 YR 1.0 cr

Prerequisite: B- in German 1 or department approval.

This course aims to develop further the four skills of language learning: listening, speaking, reading, and writing. Students will learn vocabulary and grammar necessary to communicate on an advanced-novice/intermediate level. Topics of culture and contemporary events in German-speaking regions are emphasized. **NCAA**

2030 GERMAN 3 HONORS

11-12 YR 1.0 cr

Prerequisites: A- in German 2 or department approval.

This course continues the development of the four skills of language learning, with an introduction to more complex language structures. Students will learn vocabulary and grammar necessary to communicate on an intermediate level. The study of the culture of German-speaking countries continues. *Honors classes cover material in more depth and offer more opportunity for practicing skills.* **NCAA**

FRENCH

2100 FRENCH 1

9-11 YR 1.0 cr

This course aims to develop the four skills of language learning: listening, speaking, reading and writing. This approach emphasizes the study of structural patterns, as well as pronunciation and listening comprehension through an oral proficiency approach. The culture, geography and history of the Francophone world are introduced through the use of the text and supplementary materials. **NCAA**

2200 FRENCH 2

9-12 YR 1.0 cr

Prerequisite: B- in French 1 or department approval.

This course aims to develop further the four skills of language learning: listening, speaking, reading and writing. This approach emphasizes the study of narratives and structural patterns, as well as pronunciation and listening comprehension through an oral proficiency approach. The cultural study of the Francophone world continues, augmented with videos and special projects. **NCAA**

2290 FRENCH 3

10-12 YR 1.0 cr

Prerequisites: B in French 2 or department approval.

This course continues the four skills of language learning, introducing a more intensive study of complex structures. A study of French history and literature is also introduced. Multimedia resources are used to enhance this course. **NCAA**

2300 FRENCH 3 HONORS

10-12 YR 1.0 cr

Prerequisites: A- in French 2 or department approval.

This course includes an intensive study of complex structures with emphasis on translation, writing and oral skills. A survey of French history and literature is conducted. Selected texts, audio and video resources, and other materials enhance this course. Class is conducted primarily in French. **NCAA**

2420 FRENCH 4

11-12 YR 1.0 cr

Prerequisites: B in French 3; B- in French 3 Honors; or department approval.

This course continues the study of grammatical structures with introduction to the literature and cultural contributions of France and Francophile countries. The goal of this course is to reinforce and refine all four skills of the target language. **NCAA**

2400 FRENCH 4 HONORS **11-12 YR 1.0 cr**
Prerequisites: B in French 3 Honors; A in French 3; or department approval.
This course continues the program of study of French, including an in-depth survey of French history, literature, and civilization from the Renaissance to the present. The course also includes an intensive study of grammatical structures, reading comprehension, composition and oral skills. Selected texts, audio, video, DVD's, and other materials supplement this course. Class is conducted in French. *This course is available for dual credit through Marymount University. NCAA*

2450 AP FRENCH 5 LANGUAGE AND CULTURE **11-12 YR 1.0 cr**
Prerequisites: A- in French 4 Honors or department approval.
This course emphasizes in depth the four basic skills of language learning. The class is conducted entirely in French. Students are required to speak only in the target language. All students are required to take the AP French Exam. One literary text is read, and the course is supplemented with videos, publications, and other resources. **NCAA**

2480 POST-AP FRENCH 6 HONORS **11-12 YR 1.0 cr**
Prerequisites: B in AP French 5 or department approval.
This course emphasizes in depth the four basic skills of language learning. This course is conducted entirely in French. Students are required to speak only in the target language. Literary texts are read, and films are viewed, and the course is supplemented with videos, publications, and other resources. **NCAA**

SPANISH

2500 SPANISH 1 **9-11 YR 1.0 cr**
This course aims to develop the four skills of language learning: listening, speaking, reading and writing. This approach emphasizes the study of dialogues, narratives and structural patterns and develops skill in pronunciation and listening comprehension. The culture, geography and history of Spain and Latin America are introduced through the use of maps, videos, technology, and other supplementary materials and assignments. **NCAA**

2600 SPANISH 2 **9-12 YR 1.0 cr**
Prerequisite: B- in Spanish 1.
Students attain proficiency in the four skills of language learning: listening, speaking, reading and writing. This approach emphasizes the study of dialogues, narratives and structural patterns and uses multimedia resources to develop skill in pronunciation, critical thinking, and listening comprehension. The cultural study of Spain and Latin America is supplemented with maps, videos and other supplementary material and projects. Technology is integrated into coursework to immerse students in authentic language and culture. **NCAA**

2568 HERITAGE SPANISH 3 HONORS 9-12 YR 1.0 cr
Prerequisite: Placement interview; students are selected based on oral and written skills.
The purpose of the Spanish speakers class is to refine reading and writing skills of those with native speaking ability. An intensive overview of Spanish grammar, spelling, pronunciation and vocabulary is conducted. The course is enriched with literary and cultural reading selections and projects. Spanish is used exclusively in the classroom. **NCAA**

2690 SPANISH 3 9-12 YR 1.0 cr
Prerequisites: B in Spanish 2 or department approval.
This course further develops the four basic skills of the target language, with an emphasis on improving oral proficiency. Students are expected to have the ability to initiate conversation as well as to understand and respond in Spanish. An intensive study of Spanish culture and geography is supplemented with maps, videos, projects and technology. **NCAA**

2695 PRACTICAL SPANISH 3 10-12 YR 1.0 cr
Prerequisites: C in Spanish 2 or department approval.
This course further develops the four basic skills of the target language, with an emphasis on improving oral and written communication. Students will learn to apply the language to real life situations in the workplace, the community, and abroad with confidence. The course will also include an intensive study of Spanish culture and geography, supplemented with maps, videos, projects and technology. This will allow the students to continue growing and strengthening the skills and prepare them for life situations. Completion of this course does not qualify a student to continue into level 4.

2700 SPANISH 3 HONORS 9-12 YR 1.0 cr
Prerequisites: A- in Spanish 2 or department approval.
This advanced course further develops the four basic skills of the target language, with an emphasis on oral proficiency. The curriculum includes literary readings of Spanish and Latin American authors, and introduces more advanced grammatical structures of the language. Classes are conducted primarily in Spanish. **NCAA**

2820 SPANISH 4 9-12 YR 1.0 cr
Prerequisites: B in Spanish 3; B- in Spanish 3 Honors; or department approval.
This course continues the study of grammatical structures with alternate units of introductory literature of Spain and Latin America through short stories. The goal of this course is to reinforce and refine all four skills of the target language. **NCAA**

2830 SPANISH 4 HONORS 10-12 YR 1.0 cr

2835 HERITAGE SPANISH 4 HONORS 10-12 YR 1.0 cr
Prerequisites: B in Spanish 3 Honors; A in Spanish 3; B in Heritage 3 Honors or department approval.

This course reviews grammatical structures, and introduces more advanced structures of the language. In addition, it surveys Spanish literature and art. Discussion is in the target language. *This course is available for dual credit through Marymount University.* **NCAA**

2860 SPANISH 5 HONORS**11-12 YR 1.0 cr**

Prerequisites: B in Spanish 4 Honors; B+ in Spanish 4; or department approval.

Spanish 5 Honors is conducted almost exclusively in the target language, thereby offering the student ample opportunity to practice speaking and listening skills. The student participates in discussions and conversations. The literature, art, history, geography and culture of Spanish-speaking countries are studied alternately during the year. Writing abilities continue to be developed through more advanced student compositions and journal entries. Films and videos are utilized in order to expand the student's knowledge and understanding of Spanish-speaking people and their cultures. **NCAA**

2890 AP SPANISH LANGUAGE AND CULTURE**11-12 YR 1.0 cr**

Prerequisites: A- in Spanish 4 Honors; or department approval.

The AP Spanish Language and Culture course is a program designed to develop students' communication skills in Spanish and to prepare students for the AP Spanish Language and Culture Exam. This course emphasizes conversation, composition and advanced grammar. It provides exposure to a variety of materials that expands students' knowledge of Spanish in both oral and written form. The class is conducted in Spanish. All students are required to take the AP Spanish Language and Culture Exam at the conclusion of the course. **NCAA**

2850 AP SPANISH LITERATURE AND CULTURE**10-12 YR 1.0 cr**

Prerequisites: B+ in Heritage Spanish 4 Honors; B in AP Spanish Language and Culture; or department approval.

The AP Spanish Literature and Culture course is the equivalent of a third-year college literature course. It promotes the formal study of a representative body of literature written in Spanish, from Peninsular Spain, Latin America, and the United States. The course offers students ongoing and varied opportunities to develop proficiency in Spanish across a range of skills, with emphasis on critical reading and analytical writing. In addition, the students relate the readings to literary, historical, sociocultural, and geopolitical contexts. All students are required to take the AP Spanish Literature and Culture exam at the conclusion of the course. **NCAA**

LATIN**2900 LATIN 1****9-12 YR 1.0 cr**

In this course the language and culture of the ancient Romans are introduced through a reading based approach. Latin vocabulary and the basic components of grammar are learned. A study of English word formation and vocabulary building from Latin roots are also incorporated into each chapter. **NCAA**

2950 LATIN 2**9-12 YR 1.0 cr**

Prerequisite: B- in Latin 1.

This course continues the study of Latin grammar with an emphasis on more complex grammar. The history and the culture of ancient Rome are also studied. **NCAA**

2980 LATIN 3 HONORS **10-12 YR 1.0 cr**

Prerequisite: A- in Latin 2 or department approval.

This course completes the study of Latin grammar. Grammatical principles are reviewed and consolidated as students are introduced to Latin prose and poetry. **NCAA**

2990 LATIN 4 HONORS **10-12 YR 1.0 cr**

Prerequisite: B in Latin 3 Honors or department approval.

Students continue to develop their skill at translating original Latin texts. In this literature course, students read, in Latin, a variety of prose and poetry authors. In addition to learning the vocabulary and grammar specific to the author, students analyze the work as literature and write short essays in Latin, analyzing and interpreting the literature. **NCAA**

2995 AP LATIN **10-12 YR 1.0 cr**

Prerequisite: A- in Latin 3 Honors; B in Latin 4 Honors or department approval.

Students read, analyze, and interpret portions of Vergil's *Aeneid* and Julius Caesar's *Gallic Wars* in Latin. This course follows the syllabus and requirements established by the College Board. Students are required to take the AP Latin Exam in May. **NCAA**

AMERICAN SIGN LANGUAGE

2920 AMERICAN SIGN LANGUAGE 1 **10-12 YR 1.0 cr**

This course aims to introduce and develop skills in American Sign Language through grammar, vocabulary and fingerspelling as well as through the understanding of Deaf culture. Appropriate behavior used and expected in the Deaf community will be taught. Students will learn how to use sign language and to converse without using voice. Significant amounts of class will be conducted "voice off." Applications of ASL will be introduced to include communicating with and engaging with people with communication and language deficits, not exclusively those who are deaf. **NCAA**

2930 AMERICAN SIGN LANGUAGE 2 **10-12 YR 1.0 cr**

Prerequisite: B- in American Sign Language 1 or department approval.

This course aims to build on the skills learned in American Sign Language 1 through grammar, vocabulary and fingerspelling, as well as through expanded knowledge of Deaf culture and history. Students will continue to learn how to use sign language and converse without using voice. Significant amounts of class will be conducted "voice off." Applications of ASL will be focused on communication with deaf individuals and also engaging with people with communication and language deficits. *This is the second and final year of the two-year in person ASL program.* **NCAA**

PEER MENTORING

1010 EXPANDED SERVICES PEER MENTORING

10-12 YR

1.0 cr

Prerequisites: Counselor recommendation and interview with director of Expanded Services.

In this course, students are matched 1:1 with a student receiving Expanded Services for the purpose of mentoring during one of the mentee's class periods. Some mentors accompany students to general education classes such as history or physical education; others serve as mentors in classes provided in a small group setting taught by an Expanded Services teacher. Responsibilities of a Peer Mentor include: attending a training session prior to the start of the semester, attending class daily with the assigned mentee, supporting the mentee in the given class, collaborating with the related teachers as needed, and completing online assignments designed to provide broader understanding and context to the student's role as a mentor. *This course option is available for GPA or non-GPA credit.*

EXPANDED SERVICES

"No child should be denied his or her right to an education in faith, which in turn nurtures the soul of a nation." – Pope Benedict XVI

Bishop O'Connell provides a modified and inclusive curriculum to students with cognitive and intellectual disabilities. Affirming the inherent dignity of each individual, O'Connell embraces students with more significant learning needs, accepting students for who they are and how they learn.

Students receive an individualized non-diploma program of study which includes classes in small group settings with a certified special education teacher as well as grade-level general education classes accompanied by a peer mentor. Students who receive Expanded Services learn alongside their general education peers throughout the school day and participate in activities offered at O'Connell.

This modified curriculum includes instruction based on each student's annual Individualized Catholic Education Plan, with English, reading, and math typically taught in a small group setting with an Expanded Services teacher.

At O'Connell, peer mentors are an integral part of the inclusive education offered through Expanded Services. Students in the peer mentor program are assigned a mentee and a class to attend with their mentee for the purpose of mentoring in the given class or during flexible instructional time. All peer mentors attend training in August and throughout the year.

For more information, contact Mrs. Susan Rinaldi at srinaldi@bishopoconnell.org or call 703-237-1400.

DUAL CREDIT/DUAL ENROLLMENT

MARYMOUNT UNIVERSITY

Bishop O'Connell High School and Marymount University are working in partnership to expand opportunities for high school students to pursue excellence in their academic development. Through the Dual Credit and Dual Enrollment programs, participating O'Connell students may earn college credit while in high school from Marymount University, a four-year Catholic university and a proud Arlington neighbor. This opportunity for obtaining dual credit is open to students whose general academic profile meets Marymount University criteria.

Dual Enrollment: Classes at Marymount – Credits from O'Connell and Marymount

Students whose academic profiles meet Marymount University criteria may register to enroll in classes held at Marymount University. Students must consult with, and receive approval from, the counseling department and the Academic Dean, with priority given to timing of classes scheduled at O'Connell. Seniors interested in continuing a program of study at a higher level than currently offered at O'Connell are ideal candidates for dual enrollment.

Dual Credit: Classes at O'Connell – Credit from O'Connell and Marymount

At this time, Marymount University offers college credit for classes taught at Bishop O'Connell High School. Dual credit classes are taught by O'Connell faculty. These instructors have adjunct professor status at Marymount University. Students enrolled in Statistics (3600) at Bishop O'Connell may request and be approved to earn credit for Statistical Analysis (MU MA 132) at Marymount University. French 4 Honors (MU FR 201), Spanish 4 Honors (MU SP 201), Multivariate Calculus (MU MA 221), and Linear Algebra (OMU MA 215) are also available at O'Connell for dual credit. Students submit registration forms for dual credit in early October.

For more information on our partnership programs with Marymount University, visit www.bishopoconnell.org/dual.

CATHOLIC UNIVERSITY

The Entrepreneurship Honors elective offered by the Technology & Business Department (see page 56) is a pilot dual credit opportunity with Catholic University.

Please Note - O'Connell students who elect to take dual credit or dual enrollment courses from these universities will incur additional fees from the universities.

SUMMER OFFERINGS

In addition to classes scheduled during the school year, O'Connell offers courses for credit, for enrichment and for credit recovery. Below is a list of classes that have been offered in the past. Please look for updated information on Summer 2025 course offerings to be posted in March at bishopoconnell.org/summer. Registration for these classes open at that time.

SUMMER CLASSES FOR CREDIT

S805 HEALTH 1 (Grades 9-12)

Health 1 is a required class for all students. Summer sections are available to incoming freshmen and rising sophomores. (See 8115 and 8015 for course content.)

S808 Driver Ed with Current Issues (Grades 10-11)

This classroom driver education course satisfies the requirement for a Virginia certificate. (See 8225 for course content.)

S806 General Physical Education (Grades 9-10)

This coed class is provided for those wanting to earn P.E. credit over the summer rather than during the regular school year. (See 8011 and 8111 for course content.)

Survey of American Music (Grades 9-12)

This 0.5 credit class meets a student's fine arts requirements (see full description for course 6665).

Geometry/A (Grade 10)

This 1.0 credit course is designed for rising sophomores who have earned an A or A+ in Algebra 1/A and seek to study Calculus in their senior year (see full description for course 3200).

Personal Branding and Digital Communication (Grades 9-12)

This project-based course provides students with opportunities to create and utilize a digital portfolio, to develop a skill set essential for success in both college and work environments, and to appropriately communicate using digital tools. This course serves as a vehicle for students to present themselves to real world audiences more effectively. *This 0.5 credit course fulfills the technology requirement for graduation.*

AP Comparative Government & Politics (Grades 11-12)

This 0.5 credit social studies course is presented in a hybrid online format. Students meet periodically with the instructor in addition to coursework done online. Students are required to take the AP exam in May. (see full description for course 5470).

ACADEMIC ENRICHMENT OPPORTUNITIES

Introduction to High School English (Grade 9)

This non-credit course is designed for incoming freshmen to prepare for the rigors of high school English, with a focus on grammar, writing skills and summer reading. Emphasis is placed on class participation as well as developing a work ethic for success in 9th grade studies.

Introduction to High School Math (Grade 9)

This non-credit course is intended for incoming freshmen who have not taken Algebra 1 or Pre-Algebra in the 8th grade. It is designed to prepare students for the rigors of high school mathematics, with a focus on Algebra foundations. Emphasis is placed on reviewing math skills, as well as developing techniques and work habits for success in 9th grade studies.

Math Enrichment (Grades 10-12)

Students whose grades do not qualify them for advancing to the next math in their sequence should register with the math department chairperson for online math coursework provided through Educere to qualify for the desired class. This opportunity includes incoming freshmen whose grades in the diocesan algebra exemption exam are lower than—but approaching—the threshold grade for placement in Algebra 2/Trig.

World Language Enrichment (Grades 10-12)

Students with a grade of C in language are expected to complete an online summer enrichment class to gain the background needed to succeed at the next course level in that language. Student should register with the language department chairperson.

CREDIT RECOVERY

Students must make up any failure or incomplete grade before beginning the next school year. Ordinarily, this is done by daily attendance in summer sessions of supervised study and instruction at Bishop O'Connell.

GLOBAL STUDIES CERTIFICATE PROGRAM

Thinking globally, preparing to lead and serve

Bishop O’Connell High School established the Global Studies Certificate Program to prepare students to be well-informed, self-motivated adults with the skills, confidence and moral perspective needed to succeed as leaders in the 21st century. This optional program is centered on student-selected, beyond-the-classroom learning experiences focused on themes of world importance in our time.

The Bishop O’Connell curriculum requires completion of 26 credits in specific subjects studied over a period of eight semesters for graduation. Students who choose to participate in the Global Studies Program receive a certificate upon graduation which indicates the completion of a set of non-GPA units in global studies, the equivalent of a ninth semester of academic work. This program is open to all 10th-12th grade students, with no prerequisites.

PROGRAM COMPONENTS

Choose a Thread – Each student selects an area of concentration from Faith and Humanitarian Issues; Global Business and Finance; Language and Culture; Global Health and Environmental Issues; Arts and Humanities; Global Politics; or Space Exploration, Engineering, and International Cooperation. In order to keep a truly “global” perspective for this program, participants accumulate learning experiences in the other six threads as well as in their thread of emphasis .

Attend Core Sessions – Each global studies student must participate in three core learning sessions: Morals and Ethics for a Globalized World, Understanding Politics in a Globalized World, and Foundations of Global Business and Finance. These three-hour sessions are offered periodically throughout the year.

Participate in Supplemental Seminars and Learning Experiences – Each student plans a specific set of personal field experiences, each of which is approved by the global studies advisor. In addition, the global studies program arranges events with special guest speakers who share their work experiences and provide insights into future trends and career opportunities. Field trips to local organizations or events are also coordinated. During the course of this program, students seek out and participate in a wide range of group and individual experiences that are related to their interest areas.

Complete a Capstone Project – During senior year, each participant is required to prepare a capstone presentation that demonstrates how the student has synthesized knowledge gained during the global studies experience. Seniors select three or four standout experiences for presentation to a panel of invited faculty members, giving their perspectives and insights into how these experiences have changed their individual worldview and increased their global awareness. In discussions with committee members, students reflect on the significance of their global studies experience.

Participants incur no additional fee for this program. In order to enroll in the program, a student must complete the registration form and schedule an individual meeting with the global studies advisor. More information can be found at www.bishopoconnell.org/global.

NOTES

