Mission

Central Catholic High School is a college preparatory high school in the Diocese of Wheeling-Charleston, dedicated to nurturing reflective spirituality, intellectual accomplishment, and social responsibility so that each student can reach his or her God-given potential. Rooted in our Catholic tradition and grounded by caring, dynamic faculty and staff, CCHS strives to create a learning community that inspires honest thinkers, encourages innovation, fosters creativity, and enhances individual talents.

CCHS graduates will have the skills and knowledge to pursue the college and career of their choice, the confidence to be leaders, and the social conscience and compassionate heart to be advocates for social justice in our world. Ultimately, a CCHS education prepares students to live a life in which they “Think and Act Like Christ.”

Profile

Central Catholic High School has been educating young men and women since 1865 and enrolls over 280 students from the tri-state area. With an exceptional, faith-based academic program for grades 9-12, Central Catholic High School boasts a 21st century learning environment supported by the latest technology and laboratory facilities. Dedicated teachers, staff, and administrators serve a gifted student body, preparing them for the next step in their academic and career lives. Central Catholic High School offers a rigorous course curriculum that challenges and motivates students. CCHS is accredited by North Central Association of Schools.

The Curriculum

Every student takes a full schedule of classes each year. The students graduate with 28 credits. Graduation requirements include:

- English = 4 credits
- Math = 4 credits
- Science = 4 credits
- Social Studies = 4 credits
- Religion = 4 credits
- Physical Education or Sports Affiliation = 1 credit
- Health = 1 credit
- Foreign Language = 2 credits
- Electives = 4 credits

Advanced Placement Program

Advanced Placement courses are offered in Calculus AB, Calculus BC, Computer Science in Java, English Language, Biology, Statistics, United States Government and Politics, and US History. Future plans for the AP program include Physics, Music Theory, and Literature. There is no limit to how many AP courses in which a student may enroll. Central Catholic High School requires all students, enrolled in AP courses, to sit for College Board Advanced Placement Exams. In contrast, not all schools require these optional exams.

- 100% of students enrolled sit for the AP exam.
- 52% of students in grades 10-12 are enrolled in the AP program.
- 39% of AP students are enrolled in 2 or more AP courses.
High School & College Skills

Study Skills (Semester 1 & 2) 0.5 Credit

PREREQUISITE: None. This course is designed to give students the skills necessary to become better students. Topics include: homework guidelines, listening skills, note-taking methods, visuals, mnemonic devices, dictionary and library skills, test preparation, and test-taking skills.

SAT/ACT PREP (Semester 1) 0.5 Credit

PREREQUISITE: Juniors and Seniors Preferred. This course is designed to improve student performance on the SAT and ACT college entrance exams in particular, as well as on standardized tests in general. Methods include practice questions and tests, vocabulary building, question analysis, general test-taking strategies, and strategies for specific question types.
Administration

Central Catholic High School has a Pastor/President/Principal model of governance. This model allows for a shared authority and division of administrative responsibility. CCHS’s president handles the finances, development, strategic planning, marketing, alumni, and grant writing. The principal’s chief focus is on the students, teachers, and parents and how they relate to academic programs. This well defined division of responsibilities allows each position to concentrate their efforts to the growth of Central Catholic High School.

The pastor, president and principal share responsibility for the Catholic identity of the school and the spiritual leadership of the faculty and staff.

Msgr. Gene Ostrowski, V.F.
- Earned Bachelor of Science in Mathematics from Marist College
- Earned Master of Science in Mathematics from The Catholic University of America
- Was a Marist Brother of the Schools for 21 years teaching Mathematics in high schools and colleges and held leadership positions in Marist schools and the Marist Brothers province
- Taught Math and headed the Math Department at Central Catholic in the 60's and 70's
- Ordained to the Priesthood in 1977 and has served as the Diocesan Director of Sacraments and Worship and then as Diocesan Director of the Office of Pastoral Planning
- Was named a Prelate of Honor (Monsignor) by Pope Benedict XVI in January 2009.
- Currently Pastor of Corpus Christi Parish, Wheeling, and Vicar Forane of the Wheeling Vicariate
- Serves as Chaplain to the Wheeling Serra Club and on numerous Boards, Commissions, Councils and Committees in the Diocese
- Bishop’s Cross recipient in 2006
- Archbishop Counsil Award for Serra International Chaplain of the Year

Lawrence E. Bandi ’72
- Earned Bachelor of Science Degree (Business Administration) from Wheeling College
- Received Master of Business Administration from Wheeling Jesuit College
- Graduate of Central Catholic (1972)
- 32 years of experience in Business Administration; 6 years of experience in College Administration
- Received Papal Honors in 2013
- Board Affiliations: Wheeling Jesuit University; Catholic Charities WV (Finance Committee Chair); Special Wish Foundation; WV Northern Community College Foundation ( Allocation & Finance Committee); Welty Corporation (Trustee) and WesMark Funds (Trustee)
- Club Memberships: Serra Club and Rotary Club

Rebecca Sancomb
- Earned Bachelor of Science Degree (Kinesiology/Physical Education) from University of Maryland (College Park, MD)
- Earned Masters of Educational Leadership and School Administration from College of Notre Dame (Baltimore, MD)
- Prior to moving to Wheeling, served as Associate Principal of Student Life at St. Mary’s Ryken College Preparatory High School (Leonardtown, MD), followed by role as Associate Principal of Academics
- Began working as Assistant Principal at CCHS in 2011, and became Principal in 2012
- Committees and Affiliations: Wheeling Area Chamber of Commerce Education Committee, Women in Leadership
- Mother of Jack Sancomb, age 3; Luke Sancomb, age 9; and Eli Sancomb, age 10

“"The best way to predict your future is to create it”
- Abraham Lincoln
Video Production I (Semester/Year) 0.5/1 Credit
PREREQUISITE: None. The course provides an introduction to the video production process, including script development, field and studio production and post-production. Students will serve as the crew for streaming school events and sporting events via the NFHS Network (required 6 events per semester) and work a number of days on morning announcements.

Video Production II (Semester/Year) 0.5/1 Credit
PREREQUISITE: Video Production I, Teacher recommendation. This course builds on the skills from Video I. Students will create a weekly show for Morning Announcements and develop skills in long-form production. Students will serve as the crew for streaming school events and sporting events via the NFHS Network (required 6 events per semester) and work a number of days on morning announcements.

Integrated Digital Media (Semester 1 or 2) 0.5 Credit
PREREQUISITE: None. Students will develop the knowledge and skills for the development of digital media projects. Projects will include, but are not limited to animated presentations, infographics, data collection with spreadsheets and social media. All projects are done in concert with research and writing. Copyright and fair use will also be covered.

Introduction to Computer Programming (Semester 1 or 2) 0.5 Credit
PREREQUISITE: None. This introductory computer programming class includes foundational computer science concepts and computational practices. Course content includes human computer interaction, problem solving, introduction to programming, computing and data analysis. The concepts are learned through use of the Scratch and Python programming languages.

Intermediate Programming (Semester 1 or 2) 0.5 Credit
PREREQUISITE: Introduction to Computer Programming. This intermediate programming class includes computer science concepts and computational practices. Course content extends the problem solving, computing and data analysis included in Introduction to Computer Programming. The concepts are learned through use of C# within the Visual C environment.

Robotics (Semester 1 or 2) 0.5 Credit
PREREQUISITE: Introduction to Computer Programming. This is a beginning course in robotics. We will be utilizing Vex Robotics kits and Robot C software. The objective of this course is to introduce the student to basic robotics design as well as problem-solving strategies. This course will involve students in the development, building, and programming of Vex robots. Students will work hands-on in teams to design, build, program and document their progress. Topics may include motor control, gear ratios, torque, friction, sensors, timing, program loops, pneumatics, decision-making and timing sequences.

AP Computer Science in Java (Year) 1 Credit
PREREQUISITE: Introduction to Programming, Juniors and Seniors only. The CodeHS AP Java course is a year-long course designed to help students master the basics of Java and equip them to successfully pass the AP Computer Science A Exam at the end of the school year. All learning materials and resources teachers and students need for a successful year-long AP Java course can be found on the CodeHS website. The curriculum has been pre-approved by College Board's AP Course Audit as meeting or exceeding the curricular expectations colleges and universities have for this subject.
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<td>9th</td>
<td>Studio Art I, Performing Arts, Musicianship, Music in the 20th Century, Digital Audio Recording, Intro to Music Theory, Ableton Live/ MainStage, Band</td>
<td>Studio Art II, Chorus, String/Guitar Ensemble, Intermediate Computer Programming, Structure of English</td>
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Religion

Religion 9A - The Mission of Jesus Christ (Semester 1) 0.5 Credit
The purpose of this course is to help students understand all that God has done for us through His Son Jesus Christ. Through this course of study, students will learn that for all eternity, God has planned for us to share eternal happiness with Him which is accomplished through the Redemption Christ won for us. Students will learn that they share in this Redemption only in and through Jesus Christ. They will also be introduced to what it means to be a disciple of Christ and what life as a disciple entails.

Religion 9B - Sacraments as Privileged Encounters with Jesus Christ (Semester 2) 0.5 Credit
The purpose of this course is to help students understand that they can encounter Christ today in a full and real way in and through the Sacraments, and especially through the Eucharist. Students will examine each of the Sacraments in detail so as to learn how they may encounter Christ throughout life.

Religion 10A - Sacred Scripture (Semester 1) 0.5 Credit
The purpose of this course is to give an overview of Sacred Scripture with an introduction to the basic principles for understanding and interpreting the Bible. This course will offer comments about Scriptures’ purpose and religious significance. This course will show a sense of the unity of the narrative of the divine plan of salvation, the presence of God’s action in this record of His Revelation and His desire to share His merciful love with us. The New American Bible and the Catechism of the Catholic Church will provide various explanations of Scripture with the intention of integrating catechesis and scripture.

Religion 10B - The Revelation of Jesus Christ in Scripture (Semester 2) 0.5 Credit
The purpose of this course is to give students a general knowledge and appreciation of the Sacred Scriptures. Through the study of the Bible, they will come to encounter the living Word of God, Jesus Christ. In the course, the students will learn about the Bible, authored by God through inspiration, and its value to people throughout the world. This will include learning how to read the Bible. The students will pay particular attention to the Gospels where they may grow to know and love Jesus more personally.

Religion 11A - Who is Jesus Christ? (Semester 1) 0.5 Credit
The purpose of this course is to introduce students to the Mystery of Jesus Christ, the Living Word of God, and the second Person of the Blessed Trinity. In this course, students will understand that Jesus Christ is the ultimate revelation to us from God. In learning about who He is, the students will also learn who He calls them to be.

Religion 11B - Jesus Christ’s Mission Continues in the Church (Semester 2) 0.5 Credit
The purpose of this course is to help the students understand that in and through the Church they encounter the Living Jesus Christ. They will be introduced to the fact that the Church was founded by Christ through the Apostles and is sustained by Him through the Holy Spirit. The students will come to know the Church is the living Body of Christ today. This Body has both Divine and human elements. In the course, students will learn not so much about events in the life of the Church but about the sacred nature of the Church.

Religion 12A - Responding to the Call of Jesus Christ (Semester 1) 0.5 Credit
The purpose of this course is to help students understand the vocations of life: how Christ calls us to live. In this course students should learn how all vocations are similar and how they differ. The course is structured around married life, single life, priestly life, and consecrated life. Students will learn what it means to live life for the benefit of others and the value in considering a vocation in service to the Christian Community.

Religion 12B - Life in Jesus Christ (Semester 2) 0.5 Credit
The purpose of this course is to help students understand that it is only through Christ that they can fully live out God’s plan for their lives. Students will learn the moral concepts and precepts that govern the lives of Christ’s disciples.
Music in the 20th Century (Semester 1 or 2) 0.5 Credit
PREREQUISITE: None. This course is open to all students and will focus on the music of the 20th century. Students will focus on styles, genres, and the artists who composed the soundtrack of the 20th century.

Digital Audio Recording & Sequencing (Semester 2) 0.5 Credit
PREREQUISITE: None. This course allows the student to use state-of-the-art hardware and software to record, and manipulate audio. Students will learn how to use three software programs: Garageband, Logic, and ProTools. Garageband is a basic version of Logic and is used as an introduction to the basics of audio recording. Logic and ProTools are two premier audio recording applications used by professional recording engineers. Students will create their own audio for multiple media applications: movies, commercials, and online video. Students will also learn proper microphone selection and placement, DSP (digital signal processing), and signal routing.

Intro to Music Theory (Semester 2) 0.5 Credit
PREREQUISITE: None. This course is open to anyone interested in learning how music is organized. Students will focus on the basics of notating, analyzing, and composing western styled music. Traditional rhythmic and tonal notation is the focus of the class, but non-traditional notation will be discussed as well.

Ableton Live/MainStage (Semester 1) 0.5 Credit
PREREQUISITE: None. This course is open to student-musicians that are interested in creating music with the software Live. Students will create multiple live loop based performances and will demonstrate their compositions at the fall and/or spring concert. Other performance opportunities may include private and public performances as well as competitive performance venues. All instruments are welcome in this class. Live is a multifaceted audio software package that allows the user to record, manipulate, and perform music in real time. The student will use multiple electronic hardware controllers during this class. Live is the predominate performance software used by many professional musicians.

Band (Semester 1 or 2) 0.5 Credit
PREREQUISITE: Teacher recommendation. This class is focused on ensemble performance. The ensemble is typically comprised of woodwinds, strings, brass, and percussion instruments but other non-traditional wind band instruments are welcome. Students will perform a fall and spring concert as well as performances at local primary and middle schools. Other performance opportunities may include public and private performances as well as competitive performance venues.

String/Guitar Ensemble (Semester 1 or 2) 0.5 Credit
This class focuses on ensemble performance. All string instruments are welcome in this class. Repertoire will be selected upon the class’s abilities and instrumentation. Students will perform a fall and spring concert as well as performances at local primary and middle schools. Other performance opportunities may include public and private performances as well as competitive performance venues.
Philosophy - Introduction to Basic Philosophical Studies (Semester 2) 0.5 Credit
This course is a basic introduction to philosophy. Topics include: pre-Socratic thought, Socrates and Plato, existentialism, and classical logic. Much of the class time is devoted to the thematic discussion of good and evil.

Catholic Social Thought – Living as a Disciple of Jesus Christ in Society (Semester 1) 0.5 Credit
The purpose of this course is to introduce students to the Church’s Social Teaching. In this course students will learn how Christ’s concern for others, especially the poor and needy, is present today in the Church’s social teaching and mission. This course relies heavily on selected encyclicals and the Catechism of the Catholic Church.

Biblical Greek (Semester TBD) 0.5 Credit
PREREQUISITE: Juniors/Seniors Only. Students will learn the fundamental grammar and vocabulary of Koine Greek, the language of the New Testament. This course will allow students to get as close to the source materials of the Gospels as possible, in order to enhance their faith.
English I - Introduction to Literary Genres (Full Year) 1 Credit
PREREQUISITE: None. This course is designed to develop and to intensify important communication and critical thinking skills. Students expand vocabulary, improve spelling skills, and broaden knowledge of basic grammar and syntax. Students develop reading skills through modern and classical literature. Writing skills are enhanced through descriptive, personal, and critical essays and letter writing.

English I - (H) Introduction to Literary Genres (Full Year) 1 Credit
PREREQUISITE: Teacher recommendation. This course is designed to develop and to intensify important communication and critical thinking skills. Students expand vocabulary, improve spelling skills, and broaden knowledge of basic grammar and syntax. Students develop reading skills through modern and classical literature. Writing skills are enhanced through descriptive, personal, and critical essays and letter writing. This honors level course is vertically aligned with the senior course AP English Language and Composition.

English II - American Literature (Full Year) 1 Credit
PREREQUISITE: English I. This course is designed to refine the communication skills acquired in English I. The focus of this course is critical thinking - the ability to analyze, and appreciate American literature. Students continue to expand vocabulary and spelling skills as well as syntax and grammar, applying what is learned to composition and reading assignments.

English II - (H) American Literature (Full Year) 1 Credit
PREREQUISITE: A/B (H) English, Teacher recommendation. This course is designed to refine the communication skills acquired in English I. The focus of this course is critical thinking - the ability to analyze, and appreciate American literature. Students continue to expand vocabulary and spelling skills as well as syntax and grammar, applying what is learned to composition and reading assignments. This honors level course is vertically aligned with the senior course AP English Language and Composition.

English III - British Literature (Full Year) 1 Credit
PREREQUISITE: English II. This course is designed to reaffirm students' ability to read, comprehend, analyze, and enjoy literature while increasing their confidence in vocabulary utilization, writing skills, and speaking talents. Students develop abstract thinking skills and further enhance composition abilities through the study of British literature.

English III - (H) British Literature (Full Year) 1 Credit
PREREQUISITE: A/B (H) English, Teacher recommendation. This course is designed to reaffirm students' ability to read, comprehend, analyze, and enjoy literature while increasing their confidence in vocabulary utilization, writing skills, and speaking talents. Students develop abstract thinking skills and further enhance composition abilities through the study of British literature. This honors level course is vertically aligned with the senior course AP English: Language and Composition.

English IV - Advanced Composition (Full Year) 1 Credit
PREREQUISITE: English III. In this course, students critically study and discuss the selections of rhetoric. Students write personal, argumentative, synthesis and rhetorical analysis essays. Students are required to use their knowledge of the English language in both a structural and creative way. The successful completion of a research term paper is a requirement for credit in this class.
Visual & Performing Arts

Studio Art I (Semester 1 or 2) 0.5 Credit
PREREQUISITE: None. Studio Art 1 is an introductory course designed for the beginning student artist. Techniques taught include contour drawing, shading, still-life drawing, and beginning painting. The principles and elements of design are discussed and art history is incorporated into the class as well.

Studio Art II (Semester 1 or 2) 0.5 Credit
PREREQUISITE: Studio Art 1. Studio Art 2 is designed to enhance the student artist’s ability and knowledge of art styles and art techniques. Students will develop and refine technical skills learned in Studio Art 1. As in Studio Art 1, the principles and elements of design are discussed and art history is incorporated into the class as well.

Senior Art (Semester 2) 0.5 Credit
PREREQUISITE: Seniors only. Senior students who have a strong interest in visual art and may be considering a career in art or who want to build upon work beyond Studio Art 1 and 2. Students will be challenged creatively and will be encouraged to push their artistic comfort zone. Projects include a variety of endeavors into the field of visual arts. Art history and numerous artistic styles are incorporated throughout the semester.

Graphic Arts (Semester 1) 0.5 Credit
PREREQUISITE: Studio Art 1, Juniors and Seniors only. Graphic Arts is a class that teaches students the basic concepts of art and design. Students learn computer programs such as Photoshop to create a variety of print media. Topics discussed include layout and design techniques along with basic computer skills. A photography unit is also incorporated into the semester class.

Performing Arts (Semester 1 or 2) 0.5 Credit
PREREQUISITE: None. This one semester course is designed for students with little or no theatre experience. The class promotes an understanding and appreciation of all aspects of the theatre. Classwork focuses on hands-on exploration of basic acting skills, theater terminology, technical production and creative expression through classroom projects and practicum performances. In addition, the course also develops critical listening and speaking skills, aesthetic awareness, creative problem-solving skills, and the skills to work independently and as a group to achieve a common goal. As the class is hands-on, students are expected to participate in all classroom exercises and projects.

Chorus (Semester 1 or 2) 0.5 Credit
PREREQUISITE: Teacher Recommendation. All voices are welcome in this ensemble. Students will perform a fall and spring concert as well as performances at local primary and middle schools. Other performance opportunities may include public and private performances as well as competitive performance venues.

Musicianship (Semester 1) 0.5 Credit
PREREQUISITE: None. This course is open to anyone interested in learning to play an instrument. The class will focus on the fundamentals of musicianship such as: tempo, intonation, technique, reading music, and ensemble awareness. All instruments are welcome in this class, including vocalists.
AP English: AP English Language and Composition (Full Year) 1 Credit
PREREQUISITE: A/B (H) English, Teacher recommendation. The purpose of AP English Language and Composition is “to enable students to write effectively and confidently in their college courses across the curriculum and in their professional and personal lives [The College Board, AP English Course Description, Fall 2010]. Students taking this course will master writing rhetorical analysis essays, argumentative essays, and synthesis essays. Students will also examine a wide range of rhetorical text and visual text. Students taking this course are required to take the AP exam at the end of the year and are also expected to complete a research term paper.

Argument and Rhetoric (Semester 2) 0.5 Credit
PREREQUISITE: English I. This course is offered as an elective to upper classmen enrolled in honors level English or social studies with the idea that this will prepare them for the rigor and expectations of AP English. Various types of rhetoric will be explored as students examine ways in which to effectively communicate ideas or philosophy to a wide range of audiences.

Speech (Semester 1) 0.5 Credit
PREREQUISITE: None. This course emphasizes all elements of oral communication, personal presentation, and interpersonal communication. Special emphasis is placed on articulation, pronunciation, and diction. Students speak extemporaneously on a variety of topics throughout the semester and are required to deliver at least four formal speeches.

Structure of English (Full Year) 1 Credit
PREREQUISITE: Teacher recommendation. This course offers students an additional opportunity to improve their communication skills of reading, vocabulary, and listening while focusing primarily on fundamental grammar skills, sentence construction, and essay writing.
Health & P.E.

Health I (Semester 1) 0.5 Credit
PREREQUISITE: None. This course provides a basic introduction to the three major areas of health education: social, mental and physical. Based on the information provided, students are encouraged to make healthy choices about their lifestyles. Topics include: self-esteem, stress management, personality, diet and nutrition, levels of fitness, smoking, drug and alcohol abuse and AIDS awareness. Students are introduced to CPR and basic First Aid techniques. This course is generally taken sophomore and junior years unless special arrangements are made.

Health II (Semester 2) 0.5 Credit
PREREQUISITE: None. This course provides a basic introduction to the three major areas of health education: social, mental and physical. Based on the information provided, students are encouraged to make healthy choices about their lifestyles. Topics include: self-esteem, stress management, personality, diet and nutrition, levels of fitness, smoking, drug and alcohol abuse and AIDS awareness. Students are introduced to CPR and basic First Aid techniques. This course is generally taken sophomore and junior years unless special arrangements are made.

Independent Health (Summer) 0.5 Credit
PREREQUISITE: Rising Juniors and Seniors Only, Counselor Recommendation. This course is offered to rising seniors who do not have room in their schedules to complete the graduation requirement. Students should have already met a 0.5 Health credit requirement. Students will report to the Health teacher for an introductory lesson then complete a research project through the summer. See above Health course description. There is a fee for this course outside of yearly tuition.

P.E. CCHS Athletic Participation 1 point (4 Points = 1 Credit)
PREREQUISITES: None. Students must have 4 points of PE activities to equal the 1 credit required for graduation. Students can earn ONE POINT for each sport they play at CCHS per year. The same sport may be played over multiple years to earn points.

P.E. Summer 2 points (4 Points = 1 Credit)
PREREQUISITES: None. Students must have 4 points of PE activities to equal the 1 credit required for graduation. This course is offered in a three week M-F session beginning the week after school is dismissed for the summer.
Science

Integrated Biology (Full Year) 1 Credit

PREREQUISITE: None. This course is an in-depth study of life forms in the context of other scientific disciplines. This is primarily a laboratory course. Topics include: the characteristics of life, chemistry and biological molecules, the cell, the fundamentals and basics of genetics, RNA and DNA, classification of living organisms, and ecology.

Chemistry (Full Year) 1 Credit

PREREQUISITE: Biology, Algebra 1. Standard Chemistry is an introductory course in which students work independently and cooperatively with peers to investigate through study and experimentation topics such as organization and phases of matter, the periodic table, elements and compounds, historical timeline of atomic theory, atomic structure, nomenclature, density, chemical reactions, stoichiometry, acids and bases, solutions and gasses. In this course, special emphasis is placed upon the hands-on, interactive nature of chemistry and the application of chemistry/science concepts to real world systems and issues. Through lecture, group activities, and laboratory experiments, students work to develop their critical thinking and problem-solving skills, both in the classroom and in the laboratory, in asking pertinent questions, conducting experiments, and proposing answers to important scientific problems.

(H) Chemistry (Full Year) 1 Credit

PREREQUISITE: A/B in Biology and Algebra I, Teacher recommendation. In (H) Chemistry students work independently and cooperatively with peers to investigate through study and experimentation topics such as organization and phases of matter, the periodic table, elements and compounds, atomic structure, isotopes, nomenclature, chemical bonding, chemical reactions, stoichiometry, acids and bases, solutions and gas laws. Special emphasis is placed upon the hands-on, interactive nature of chemistry and the application of chemistry/science concepts to real world systems and issues. Through lecture, group activities, and laboratory experiments, students work to develop their critical thinking and problem-solving skills, both in the classroom and in the laboratory, in asking pertinent questions, conducting experiments, and proposing answers to important scientific problems. As an honors course, the pace of the class is accelerated. This class covers topics in depth and emphasis is placed on mathematics to deepen the understanding of chemistry concepts and principals.

(H) Physics (Full Year) 1 Credit

PREREQUISITES: (H) Algebra II, (H) Chemistry, Teacher recommendation. (H) Physics is a course designed for students to work independently and cooperatively with peers to investigate through study and experimentation topics such as motion, forces, momentum, light, energy and magnetism. This course is qualitative in nature; completion of Algebra II and proficiency in Algebra II skills are important for success in honors physics. In this course, special emphasis is placed upon the hands-on, interactive nature of physics and the application of physics concepts to real world systems and issues. Through lecture, group activities, and laboratory experiments, students work to develop their critical thinking and problem-solving skills, both in the classroom and in the laboratory, in asking pertinent questions, conducting experiments, and proposing answers to important scientific problems.

Anatomy I (Full Year) 1 Credit

PREREQUISITE: Biology, Chemistry. Students learn the biological and anatomical systems of the human body. Their understanding is enhanced by laboratory comparisons with similar systems in other animal species, with the use of computers and interactive probes. Topics include: the cell, cellular energy, DNA, tissue, the integumentary system, skeletal and muscular structures, the respiratory system, nutrition and digestion. A microscopic camera is used to aid in the investigation of tissues and cell functions.
Anatomy II (Full Year) 1 Credit
PREREQUISITE: Biology, Chemistry, A/B in Anatomy 1. This course is a continuation of Anatomy I providing a more detailed look at specific organs, functions, and systems. Topics include: the nervous, lymphatic, urinary, endocrine, cardiovascular, and reproductive systems. Particular emphasis is placed on the brain, the cardiovascular system and blood. A substantial portion of class is devoted to laboratory comparisons of animals and human organs and systems. Computers, software, and probes are used to gather data and investigate human anatomical systems.

AP Biology (Full Year) 1 Credit
PREREQUISITE: A/B in Biology and (H) Chemistry, Teacher recommendation. This course is offered to highly motivated students who wish to pursue an interest in the life sciences. The topics covered include: anatomy, physiology, biochemistry, biodiversity, cell functions and organelles, developmental biology, ecology, genetics, molecular biology, origin of life, population biology, evolution, molecular genetics, cell communication, and cell division.

College Chemistry (Full Year) 1 CCHS Credit / 4 College Credits
PREREQUISITE: A/B Biology, A/B (H) Chemistry, A/B (H) Algebra II, teacher recommendation. College Chemistry is a dual-credit course in which students have the opportunity to earn both high school and college credit for successful completion of the course. The course curriculum is aligned with Wheeling Jesuit University’s (WJU) general chemistry lecture and laboratory courses and will be taught according to the standards, objectives, and expectations of a college-level course. This course is designed so that the students can acquire a thorough understanding of the principles of atomic structure, electronic configuration, chemical formulas, and nomenclature. Emphasis is placed on mass balance problems in solutions and also in the gas phase. Topics covered include classification and phases of matter, unit conversions, dimensional analysis, chemical bonding and nomenclature, stoichiometry, atomic structure as it relates to electron configurations, periodic trends, molecular geometry, bond polarity, thermochemistry, and nuclear chemistry. In the laboratory component of the course, students will be tasked with drawing, explaining, and interpreting representations, using mathematics and logical routines appropriately, asking and refining scientific questions, designing and implementing data collection strategies, analyzing and evaluating data, making predictions and justifying claims with evidence, and connecting chemistry concepts across the topics covered.

Zoology (Semester 2) 0.5 Credit
PREREQUISITE: Biology. This course will include topics involved in Molecular Biology and will cover the detailed study of the animal kingdom. This course will include the dissection of representative animals. Topics include invertebrates which include protozoa, sponges, cnidarians, flatworms, annelids, and arthropods. The vertebrates will include fish, amphibians, reptiles, birds, and mammals. There will be numerous dissections involved.

DNA/Genetics (Semester 1) 0.5 Credit
PREREQUISITE: Biology. Upper level biology course that studies DNA structure, replication of DNA, transcription (production of RNA), and translation (protein synthesis) as well as basic genetics. This course includes the vocabulary, principles, and concepts concerning cell reproduction and basic genetics principles. Laboratory experiences include breeding Drosophila melanogaster (fruit flies) to study the process of traits being passed from generation to generation, and conducting experiments involving DNA electrophoresis.
(H) Precalculus (Full Year) 1 Credit  
**PREREQUISITE:** Placement Test, (H)Algebra 2, (H)Geometry, Teacher recommendation. This course is designed to prepare students for college. Topics include: radian measure, value and graphs of trigonometric functions, polar coordinates, triangle trigonometry and its applications, identities, inverses, equations, vectors, coordinate geometry of conic sections, exponential and logarithmic functions.

Math Applications (Full Year) 1 Credit  
**PREREQUISITE:** Placement Test, Algebra 2. This course is a review of Algebra I, Algebra II, Geometry, along with some Trigonometry, pre-Calculus and Statistics. The following skills are reviewed and taught: writing and solving linear and quadratic equations; graphing linear equations, and conic sections such as parabolas and hyperbolas; application of all operations with monomials and polynomials is stressed and applied; factoring; all operations with Algebraic fractions; application of formulas involving area, volume and surface area. Application of mathematical concepts with regard to angles; simplifying and writing functions and composite functions; application of matrices; application of logarithmic relations; identifying properties. Basic probability problems, along with combinations and permutations, are applied to word problems. The use of google spreadsheets, slides, Microsoft excel will be implemented. Critical-thinking skills and problem-solving strategies will be stressed, along with a heavy use of word problems focusing on real-world scenarios. ACT/SAT test-preparation questions are also incorporated, along with the use of graphing calculators.

Business Math (Semester/Year) 0.5 Credit  
**PREREQUISITE:** Algebra 2. This course covers the following: all operations with decimals, fractions, integers as applied to word problems. The use of percentages and application of formulas, specifically formulas dealing with financing are stressed. Writing and solving multi-step, Algebraic equations are incorporated as well. Additional concepts covered include, but are not limited to, record-keeping, banking, credit accounts, budgets, housing costs, mortgages, auto purchasing, financing of autos, various forms of taxes including a focus on income tax; such as federal, state, local, Social Security and Medicare. The use of google spreadsheets, slides, Microsoft excel will be implemented. Critical-thinking skills and problem-solving strategies will be stressed, along with a heavy use of word problems focusing on real-world scenarios. ACT/SAT test-preparation questions are also incorporated, along with the use of graphing calculators.

AP Calculus AB (Full Year) 1 Credit  
**PREREQUISITE:** Teacher recommendation, A/B (H) Precalculus. This course covers all topics in the Calculus Course Description, including some trig integration and Euler’s Method. The primary text used is Calculus by Larson, Hostetler, & Edwards (8th ed), supplemented with lessons from the Stewart & Hughes-Hallett texts. After a lesson has been taught, it will be reinforced with traditional problems as well as past AP problems. The class is taught using multi-representations of functions - algebraic, graphical, and numeric, as well as having the students verbalize and interpret their results. The class also touches on differential calculus, applications of differentiation, integral calculus, applications of integration, and logarithmic, exponential, and other transcendental functions.

AP Calculus BC (Full Year) 1 Credit  
**PREREQUISITE:** Teacher recommendation, AP Calculus AB. This course is a continuation of AP Calculus A/B. This course will cover additional applications of the definite integral, additional techniques of integration, indeterminate forms and improper integrals. The course will also cover infinite series, parametric equations and polar coordinates, vector valued functions, and exponential growth and decay.

AP Statistics (Full Year) 1 Credit  
**PREREQUISITE:** Teacher Recommendation, A/B (H)Pre calculus. AP Statistics is the high school equivalent of a one semester, introductory college statistics course. In this course, students develop strategies for collecting, organizing, analyzing, and drawing conclusions from data. Students design, administer, and tabulate results from surveys and experiments. Probability and simulations aid students in constructing models for change behavior. Sampling distributions provide the logical structure for confidence intervals and hypothesis tests. Students use a TI-83/84 graphing calculator, the statistical programming language R, and Web-based applets to investigate statistical concepts. To develop effective statistical communication skills, students are required to prepare frequent written and oral analyses of real data.

Introduction to Engineering (Semester/Year) 0.5 Credit  
**PREREQUISITE:** Teacher recommendation, Algebra 2. This course is designed to explore various topics in and related to engineering. Students will draw on knowledge from previous courses and life experiences, supplemented by experiment and research, to solve problems. Coursework will focus on completing given objectives through group and individual projects. Projects and topics will vary depending on areas of student interest, current developments, and available resources. As circumstances and opportunities permit, the class will participate in competitions (e.g. WVU’s pumpkin drop, Science Olympiad).
Pre-Algebra (Full Year) 1 Credit
PREREQUISITE: Placement Test. This is a moderately paced course which starts with a review of basic concepts of Algebra. Topics include: concepts of directed numbers, factors and multiples of numbers, expressions, equations and inequalities, functions, and operations with binomials, polynomials, exponents, factoring and quadratic equations.

Algebra I (Full Year) 1 Credit
PREREQUISITE: Placement Test, Pre-Algebra. This course covers the following: writing and solving one and two-step equations, simplifying variable expressions, performing all operations with real numbers, monomials and polynomials; understanding, identifying and applying properties, factoring polynomials, solving quadratic equations, performing all operations with Algebraic fractions, calculating a percent, probability and applying dimensional analysis; solving, graphing and analyzing linear equations. Students will also be introduced to the graphing calculator, and how to use it for basic computations and graphs. The students will conduct a research project on a mathematician, where they are required to write a paper and give a presentation.

Geometry (Full Year) 1 Credit
PREREQUISITE: Placement Test, Algebra I. The first half of the year the course focuses on proofs, parallel and perpendicular lines, congruence, relationships in triangles, parallelograms, and trapezoids. The second half of the year the focus is on similarity, transformations, right triangles, special right triangles, and two- and three-dimensional measurements. Students will learn the basics of trigonometry, and how to use the graphing calculator with the trig functions. Students are required to complete a project researching dimensions and prices of building a house.

(H) Geometry (Full Year) 1 Credit
PREREQUISITE: Placement Test, Teacher recommendation, Algebra I. This course teaches students to recognize and use symbols for points, lines, planes and angles. This course emphasizes the concepts of parallel lines and their relation to polygons, deductive and inductive reasoning, congruency and similarity of polygons, right triangles, circle theorems, area, volume, basic construction, formal proofs and coordinate geometry.

Algebra II (Full Year) 1 Credit
PREREQUISITE: Placement Test, Algebra I, Geometry, Teacher recommendation. This course covers the following: first-degree equations and inequalities, quadratic, polynomial, and radical equations and inequalities the first half of the year. This includes systems of equations, matrices, and quadratic functions. The second half will cover advanced functions and relations, discrete mathematics, and trigonometry. These will include conic sections, sequences and series, and trigonometric graphs and identities.

(H) Algebra II (Full Year) 1 Credit
PREREQUISITE: Placement Test, Algebra 1, (H) Geometry. This course will cover the following: first-degree equations and inequalities, quadratic, polynomial, and radical equations and inequalities the first half of the year. This includes systems of equations, matrices, and quadratic functions. The second half will cover advanced functions and relations, discrete mathematics, and trigonometry. These will include conic sections, sequences and series, and trigonometric graphs and identities. As an honors (H) level course, material is covered at rigorous pace and in more depth.

Precalculus (Full Year) 1 Credit
PREREQUISITE: Placement Test, Algebra 2, Geometry. This course focuses on learning about properties of functions and how they behave. Material in PreCalculus will draw on and combine concepts from Algebra and Geometry. Focus will be on linear relations and functions, systems of equations and inequalities, nature of graphs, matrices, polynomial and rational functions, trigonometric functions graphs, identities, and equations, exponential and logarithmic functions. Also covered in the course will be vectors and parametric equations, polar coordinates and complex numbers, conics, sequences and series, combinatorics and probability, and finally statistics and data analysis. The course is a building block for Calculus and almost any college course you will take.
Mandarin Chinese II (Full Year) 1 Credit
PREREQUISITE: Mandarin I. This course is designed for students who have fundamental knowledge of the Chinese language and culture. The course will guide students to review core vocabulary, phrases, sentence structures, basic communication skills, and character writing. In addition, the instructor will assign a variety of activities with authentic materials to enhance students' listening and pronunciation comprehension. For the 2nd semester, the course will highlight the preparation for Chinese certificate test.

English as a Second Language (ESL) (Full Year) 1 Credit
PREREQUISITE: None. The course is designed for the international students who are new students to CCHS or returning students who were not able to obtain an A in the previous class. The aim of this course is to prepare the international students for all aspects of academic learning, especially highlighting writing and reading skills of language acquisition. Students are required to be familiar with the organization and structure of writing as well as grammar application. Students will be able to develop a paragraph, reflection, summary, and essay related to the subjects of life, academic studies, and literatures. Students will be encouraged to enhance their competence and performance with task-based, self-learning, scaffolding, and collaborative learning approaches, as well as with the use of open sources, educational resources, and emerging instructional technologies. An ESL learning network and community will be provided to foster and increase language use.

Spanish I (Full Year) 1 Credit
PREREQUISITE: None. This is a brand based course designed to introduce students to the language. Included are the four basic skills of languages study: speaking, listening, reading, and writing. Students will complete daily activities in text, workbook, and handouts in class. Students will learn cultures and histories of all Spanish speaking countries through projects and activities. Pronunciation activities will be practiced daily.

Spanish II (Full Year) 1 Credit
PREREQUISITE: Spanish I or Placement Test. The development of the four linguistic skills acquired in Spanish I is continued in this course. Increased emphasis is placed on speaking. More complex vocabulary and grammatical concepts are introduced. The study of culture expands to include cross-cultural similarities and differences. There is an expectation of using Spanish as much as possible in and out of the classroom.

(H) Spanish III (Full Year) 1 Credit
PREREQUISITE: Spanish II and Teacher recommendation. Spanish is used as the primary means of communication in this advanced Spanish course. Additional thematic vocabulary and grammatical concepts enable students to express themselves in a more complex manner. Reading skills and cultural awareness are heightened through the introduction of Spanish/Latin American literature.

(H) Spanish IV (Full Year) 1 Credit
PREREQUISITE: Spanish III and Teacher recommendation. This advanced course uses Spanish as the primary language of communication in the classroom and provides students with the skills necessary to use the language in unstructured situations. Advanced vocabulary and grammatical concepts are presented. The internalization of previously learned concepts is encouraged. Further reading and discussion of literary selections enable students to identify additional cultural aspects of the Hispanic world.

(H) Spanish V (Full Year) 1 Credit
PREREQUISITE: Spanish IV and Teacher recommendation. For students who have successfully completed Spanish IV, this independent study requires two projects per quarter. The student will research and report on an area of geography, history, art or culture and traditions. The student will be encouraged to vary the presentation format; each presentation will be given to the Spanish IV class and will be evaluated for grammar proficiency, literacy and oral mastery. The student will be encouraged to participate in the National Spanish Exam.
World History (Full Year) 1 Credit

*PREREQUISITE: None.* This course studies the evolution of societies to the early Twentieth Century. It combines historic events and geographical facts with social, political, economic, and cultural developments. The course is designed to help students appreciate and understand people from all regions of the world, with the goal of understanding how all societies helped to shape the modern world. The course is designed to engage students in discussion and analysis of multiple perspectives, and introduces visual and textual analysis of primary and secondary sources, expository writing, and independent and group research. The topics covered and skills developed in this course are vertically aligned with standard US Studies-Comprehensive.

(H) World History (Full Year) 1 Credit

*PREREQUISITE: Teacher recommendation.* This course studies the evolution of societies to the early Twentieth Century. It combines historic events and geographical facts with social, political, economic, and cultural developments. The course is designed to help students appreciate and understand people from all regions of the world, with the goal of understanding how all societies helped to shape the modern world. The course is designed to engage students in discussion and analysis of multiple perspectives, and introduces visual and textual analysis of primary and secondary sources, expository writing, and independent and group research. The topics covered and skills developed in this course are vertically aligned with AP US History.

US Studies - Comprehensive (Full Year) 1 Credit

*PREREQUISITE: World History, Teacher recommendation.* This course is a study of American society from colonization of what would become the United States to America’s continued role in the current complex global community. It stresses the evolution of the Constitution as a living document and the role of participatory democracy in the development of a rapidly changing society. The course is designed to engage students in discussion and analysis of multiple perspectives, building on students’ skills using visual and textual analysis of primary and secondary sources, expository and argumentative writing, and independent and group research. The topics covered and skills developed in this course are vertically aligned with the following courses: World Geography, Psychology, and Civics.

AP US History (Full Year) 1 Credit

*PREREQUISITE: A/B (H) World History.* This course provides students with skills and knowledge to critically analyze U.S. history on a college level. The challenges presented are equivalent to those made by full-year introductory college courses. Students learn to assess historical materials and weigh the evidence and interpretations presented in historical scholarship, develop the skills necessary to arrive at conclusions on the basis of an informed judgment, and present reasons and evidence clearly and persuasively in written and spoken format. (The College Board) Students are required to take the comprehensive AP U.S. History Exam, published and administered by The College Board, at the end of the school year. Depending upon the exam score, students have the potential to earn up to 9 college credits (determined by individual universities and colleges). The topics covered and skills developed in this course are vertically aligned with the following courses: World Geography, Psychology, and AP Government and Politics.
World Geography (Full Year) 1 Credit

PREREQUISITE: World History, AP US History or US Studies Comprehensive. This course is organized on the six essential elements and five themes of geography: stressing the contemporary world and the global community. Students examine relationships among people, places, and environments, and explore how cultural, political, and social institutions shape the human condition. Students investigate topics through a variety of case studies and project-based assignments, building on students' skills using graphic and textual analysis of primary and secondary sources, expository and argumentative writing, and independent and group research.

Psychology (Full Year) 1 Credit

PREREQUISITE: World History, AP US History or US Studies Comprehensive. Psychology is defined as the scientific study of the mind and behavior. In this course, students are introduced to the development of psychology as an empirical science, use of the scientific method, and core ideas and theories of psychology. Students gain an understanding of the complexities of human behavior and learn the valuable role psychology plays in benefiting society and improving people's lives. Students investgate topics through a variety of case studies and project-based assignments. The course is designed to engage students in discussion and analysis of primary and secondary sources, use of qualitative and quantitative research, independent and group research, and interpretation of data.

Civics (Full Year) 1 Credit

PREREQUISITE: World History, AP US History or US Studies Comprehensive. In this course students learn and utilize knowledge and skills to foster responsible citizenship in a participatory democracy. Students explore political ideas, institutions, policies, events, and behaviors that have characterized American government and politics. Students examine politically significant concepts and themes including civil rights and responsibilities; the social, economic, and environmental implications of government action; and awareness of the global impact of American policies. The course is designed to engage students in discussion and analysis of primary and secondary sources, expository and argumentative writing, and independent and group research. To show evidence of knowledge and understanding of the goals and themes of the course, students engage in a capstone community service project, either individually or as a group.

AP United States Government and Politics (Full Year) 1 Credit

PREREQUISITE: A/B (H) World History, AP US History recommended. AP United States Government and Politics is a college-level introduction to key political concepts, ideas, institutions, policies, interactions, roles, and behavior that characterize the constitutional system and political culture of the United States. Students will read and analyze US foundational documents, Supreme Court decisions, and other texts and visuals to gain an understanding of the relationships and interactions between political institutions and behavior. They will read and interpret data, develop evidence-based arguments, and engage in an applied civics or politics research-based project. Students are required to take the comprehensive AP United States Government and Politics Exam. Depending upon the exam score, students have the potential to earn up to 9 college credits (determined by individual universities and colleges).

WJU College Psychology (Semester 1) 1 CCHS Credit/3 College Credits

PREREQUISITE: Teacher recommendation, Seniors Only. A survey of contemporary psychology, including the topics of conditioning and learning, sensation and perception, psychophysiology, motivation and emotion, memory and cognition, development, social behavior, and an alternative exercise is required.
World Languages

French I (Full Year) 1 Credit
PREREQUISITE: None. This course is an introduction to the French language and culture. Skills in listening, speaking, reading, and writing are taught with particular emphasis on oral proficiency in the language. Students model correct pronunciation and have ample opportunity to speak French in the classroom. Basic grammatical structures and thematic vocabulary are presented. Students also complete a cultural unit on the geography of France.

French II (Full Year) 1 Credit
PREREQUISITE: French I or Placement Test. This course continues with the skills learned in French I. Vocabulary and grammar become more complex, and new verb tenses are presented. More of the classroom dialogue is in French and students understand and speak on a higher level. Students complete a cultural unit on Paris and do a cultural project on a French-speaking country.

(H) French III (Full Year) 1 Credit
PREREQUISITE: French II and Teacher recommendation. Students continue to develop their communication skills with particular emphasis placed on listening and speaking. Students present material orally to the class, participate in class discussion in the target language, and improve their listening comprehension through a series of dictations. More complex grammatical concepts and verb tenses are presented. Students also complete a cultural unit on French art.

(H) French IV (Full Year) 1 Credit
PREREQUISITE: French III and Teacher recommendation. French is used as the primary language of communication in this advanced language class. Students continue to improve their communication skills through a series of impromptu speaking exercises and read short stories and poetry to enhance their reading skills. Advanced verb tenses and their uses are presented, preparing students for college placement tests. Cultural units in French IV include French history and civilization as well as the study of other French-speaking countries.

(H) French V (Full Year) 1 Credit
PREREQUISITE: French IV and Teacher recommendation. For students who have successfully completed French IV, this independent study focuses on advanced French grammar and reading selections. Students will study French history in-depth through textbook readings and research and then complete and present reports on assigned topics to underclassmen. Students will also do a comprehensive review of French verb tenses and grammatical concepts. Students will be expected to participate in the National French Contest in the spring.

Mandarin Chinese I (Full Year) 1 Credit
PREREQUISITE: None. The focus of this entry level course is to guide students who have little or no prior knowledge with the language through listening, speaking, reading, writing, and interactive practices to develop their capabilities of correctly using language in social contexts. In addition to the basic language training, phonetics practice, grammar learning, and calligraphy exercise, students will gain insight into Chinese culture and customs. A Chinese learning network and community will be provided to foster and increase language use.