

# ACADEMIC CATALOGUE

#### **CBHS MISSION**

The mission of Christian Brothers High School is to provide young men a college preparatory education in the Catholic and Lasallian traditions. Thus, we welcome, encourage, and support religious, ethnic, and economic diversity; and we acknowledge the importance of service to the poor as we prepare students to become responsible adults in the global community.

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# MARR

Department of Business

Course works within the Business department is designed to attain the following goals:

- To provide a holistic business perspective to students that will encourage and prepare them to become successful contributors in the local, regional, and global business community.
- To offer a progressive track of business classes to promote a deeper understanding of the opportunities that are available in colleges & universities and for potential lifelong careers.
- To help students acquire the theoretical aspect of accounting and credible
- understanding of making out financial statements.
- To help students acquire practical rules which are applicable to business
- transactions that are designed to help them explore the business world.
- To help students acquire leadership skills and the values of effective communication which will help them become competent in the business world

COURSE TITLE: Economics COURSE #: 056 COURSE LENGTH: Semester (.5 credit) GRADE LEVEL: 9-12 PREREQUISITE: None

DESCRIPTION: Students in Economics will have the opportunity to learn about the structure, function, principles, basic concepts, and problems of the American economy. The study of scarcity, opportunity cost, and the fundamental economic problem will form the conceptual framework for an analysis of the factors of production, economic systems, supply and demand, forms of business organization, market structures, and market failure. Special emphasis will be given to the role of government in our economy. Students will learn about the use of monetary and fiscal policies to bring about economic stability, international trade, and the role of the United States in the global economy, and economic problems facing our nation today. Students will also study current events and analyze their impact within the business world.

COURSE TITLE: Principles of Business COURSE #: 075 COURSE LENGTH: Semester (.5 credit) GRADE LEVEL: 10, 11, 12 PREREOUISITE: None

DESCRIPTION: This class is designed for students who may be interested in exploring the possibility of pursuing a career in business. The class focuses on the economic and social foundations of business and the various types of business ownership. It is also intended to build a solid foundation of establishing business principles and practices that form the groundwork for all business practices.

COURSE TITLE: Sports Marketing

COURSE #: 059

COURSE LENGTH: Semester (.5 credit)

GRADE LEVEL: 10

PREREQUISITE: None

DESCRIPTION: This specialized marketing course explores facility design, merchandising, advertising, public relations/publicity, event marketing, sponsoring, ticket distribution, and career opportunities in the sports & entertainment industry. The curriculum focuses on the features concepts and activities in sports and entertainment. Information on featured teams and entertainment organizations and their products and services. Students will learn to promote sports, teams, and entertainment events.

COURSE TITLE: Legal Environment of Business COURSE #: 074 COURSE LENGTH: Year-Long (1 credit) GRADE LEVEL: 11, 12 PREREQUISITE: None

DESCRIPTION: This course studies the rules applicable to business situations and transactions. It deals with the problems of the individual as a minor, a citizen, a consumer, an employee, or an employer. Students will analyze business contracts of all types as well as develop skills in the areas of discussion, debate, and case studies. Students work towards gaining lawful insight into real world business situations such as personal injury, employee injury, consumer protection, renting property, and dealing with debtors, creditors, and bankruptcy.

COURSE TITLE: New Venture Creation COURSE #: 070 COURSE LENGTH: Semester (.5 credit) GRADE LEVEL: 11, 12 PREREQUISITE: None

DESCRIPTION: This course assists students in the development of skills needed to run an effective organization within a community, including leadership styles & interpersonal communication. This course is designed to introduce the process of turning an idea into a successful business as students explore the potential of being a successful entrepreneur. The student will use entrepreneurial discovery processes, assess opportunities for venture creation, and develop presentation skills to convince others of the potential success to implement the business entity. Students develop and apply skills in teamwork, conflict resolution, communication, and group problem solving.

COURSE TITLE: Accounting I COURSE #: 051 COURSE LENGTH: Year-Long (1 credit) GRADE LEVEL: 11, 12 PREREQUISITE: None DESCRIPTION: Financial Accounting emphasizes basic accounting principles used to prepare, analyze, and interpret financial statements; these include: income statements, balance sheets,

analyze, and interpret financial statements; these include: income statements, balance sheets, equity statements, and cash flow statements. The course will survey all of the various reporting information by investors and creditors to for decision making. Students will learn to account for different types of taxation and understand how to meet payroll. By the end of the year, each individual will be able to record all of a corporation's financial transactions for one month's time.

COURSE TITLE: Personal Finance COURSE #: 063 COURSE LENGTH: Semester (.5 credit) GRADE LEVEL: 10, 11, 12 PREREQUISITE: None

DESCRIPTION: Students will study topics ranging from personal budgets, credit cards, checking and savings accounts, housing, insurance and retirement, stock market, investing and taxes. The aim of this course is to educate the student in the many aspects of managing one's own personal finances ranging from opening a bank account to retirement. The project-based course will expose students to the process of making major financial decisions such as the purchase of a house or car, paying taxes, managing your personal budget, and choosing careers. The goal of this course to help students gain practical knowledge so they can make educated decisions in the future in the areas of spending, saving, borrowing, and investing.

COURSE TITLE: AP Microeconomics COURSE #: 062 COURSE LENGTH: Fall Semester (.5 credit) GRADE LEVELS: 10, 11, 12 PREREQUISITE: Economics and teacher approval DESCRIPTION: The purpose of an AP course in microeconomics is to give students a thorough understanding of the principles of economics that apply to the functions of individual decision makers, both consumers and producers, within the economic system. COURSE TITLE: AP Macroeconomics COURSE#: 061 COURSE LENGTH: Spring Semester (.5 credit) GRADE LEVELS: 10, 11, 12 PREREQUISITE: Economics DESCRIPTION: The purpose of an AP course in

DESCRIPTION: The purpose of an AP course in microeconomics is to give students a thorough understanding of the principles of economics that apply to the functions of individual decision makers, both consumers and producers, within the economic system.

## ENGLISH

The English Department of Christian Brothers High School aims to give its students an understanding of and an appreciation for the English language, and an adequate competency in its use. This is to be accomplished by the study of language, composition, and literature. The department also strives to help each young man become more involved in reading and become more effective in his approach to his studies.

Objectives in the Study of LANGUAGE:

1. That the student may understand the structure of the language functionally taught through traditional grammar.

2. That the student knows and understands the different levels of usage, formal, standard, substandard, and acquire the linguistic sensitivity to select language appropriate to various occasions.

Objectives in the Study of COMPOSITION:

1. That the student learns to write creditable expository writing through well-planned, wellmotivated writing assignments, including smooth, clear, effective sentences, paragraphs, and themes.

 That imaginative composition and creative writing is important and should be encouraged. Expository writing, however, is the principal objective and is a challenge to any creative writer.
That in-class writing assignments either as themes and/or discussion tests be periodically given to the students in order that they may learn how to write under pressure.

Objectives in the Study of LITERATURE:

1. That through exposure to a wide variety of genres, periods, and voices, the student develops an appreciation for all kinds of literature.

2. That the student becomes aware of the human values depicted in literature and this awareness lead to greater respect and understanding of human differences.

3. That the student obtains a knowledge of literary techniques which will enable him to understand better what he reads and that he acquire some background for literary criticism.

COURSE TITLE: English I COURSE #: 219 COURSE LENGTH: Year-Long (1 credit) GRADE LEVEL: 9 PREREQUISITE: Placement based on Placement test scores and incoming freshmen English

summer school teacher recommendation CORE TEXTS: Julius Caesar, The Red Badge of Courage, To Kill a Mockingbird

DESCRIPTION: This entry-level freshman course is designed for the lower-archiving student who needs remedial work with English. While the material covered is the same as for class 212, there is more teacher-guided instruction and attention to the material with which a student in 212 should already be fluent.

- The study of literature includes the short story with attention to plot, character, theme, and setting. Reading strategies include asking questions while reading, drawing conclusions, and making predictions. Poetry includes the reading of narrative and lyrical poems with focus on tone, symbol, imagery and figurative language. The reading of poetry will stress using the senses to help determine the setting of the work and trying to make inferences about the poet and what is being said about the topic of the poem. The study of drama covers the elements of drama as portrayed in a one-act play, a longer dramatic selection, and Julius Caesar. Special attention will be given to using stage directions and contextual aids to help in the understanding of the action of the play. The study of non-fiction includes narrative, biographical, and autobiographical essays. Emphasis in this genre includes identifying the author's attitude toward the topic and finding the writer's main points and support.
- Grammar covers the parts of speech, parts of sentence, phrases, and clauses. The study of usage covers subject-verb and pronoun-antecedent agreement, as well as using verbs, pronouns, and modifiers correctly. The study of mechanics covers capital letters and punctuation.
- Vocabulary study consists of fifteen units each comprised of twenty words with various exercises to develop knowledge of the words in the units, along with several review sets of exercises.
- Lessons on composition include the writing of at least ten paragraphs with emphasis on, but not limited to, supporting with examples, persuasion, and narrative styles.

COURSE TITLE: Standard English I COURSE #: 212 COURSE LENGTH: Year-Long (1 credit) GRADE LEVEL: 9 PREREQUISITEs: Placement determined by HSPT Scores and previous teacher's recommendation. CORE TEXTS: Julius Caesar, The Red Badge of Courage, To Kill a Mockingbird DESCRIPTION: In addition to a study of vocabulary skills, students review grammar and usage during the first semester, followed by a study of the various genres of literature, with focus on JULIUS CAESAR. Emphasis on paragraph writing and outside reading.

For the 2014-2015 school year, the primary objective of the ninth-grade English class will be focused on turning each and every student into a proficient writer. The class will delve deeply into the writing process and study every step from sentence structure and tense agreement, to the editing process and final drafts.

Each student will study various styles of writing and gain experience in personal narrative, reflections, expository, persuasive, opinion based, analytical, research, and creative writing. The literature portion of the course will focus on four novels, one play, assorted articles, poetry, and short stories. The study of vocabulary and grammar will be conducted through class created lists and focused grammar lessons respectively, and will be drilled in an effort to strengthen and improve each student's written skill set.

COURSE TITLE: Honors English I

COURSE #: 211

COURSE LENGTH: Year-Long (1 credit)

GRADE LEVEL: 9

PREREQUISITES: Placement determined by HSPT Scores and previous teacher's recommendation.

CORE TEXTS: Julius Caesar, The Red Badge of Courage, To Kill a Mockingbird, Once and Future King (2 of 4), A Christmas Carol, The Unvanquished

DESCRIPTION: This intensive course challenges students with an accelerated study of grammar followed by an in-depth study of genres of literature and key literary elements (including plot, character, setting, point of view, symbolism, irony, & theme).

- Minimum of 10 compositions (paragraphs and essays).
- Continued study of vocabulary with emphasis on denotative and connotative range of meanings.
- Outside reading program.

COURSE TITLE: English II

COURSE #: 229

COURSE LENGTH: Year-Long (1 credit)

GRADE LEVEL: 10

PREREQUISITE: Successful Completion of English I

CORE TEXTS: The Adventures of Huckleberry Finn, Our Town, Catcher in the Rye

DESCRIPTION: This course provides an overview of the chronological growth and development of American literature, step-by-step development of writing skills, introduction to research, and development of vocabulary skills.

- Continued study of formal grammar with emphasis on composition.
- Students write a minimum of 12 papers (across a range of forms and styles).
- Outside Reading program (minimum of one work per quarter).

COURSE TITLE: English II

COURSE #: 222

COURSE LENGTH: Year-Long (1 credit)

GRADE LEVEL: 10

PREREQUISITE: Successful Completion of English I

CORE TEXTS: The Adventures of Huckleberry Finn, Our Town, Catcher in the Rye

DESCRIPTION: Class goals in American Literature are to read, appreciate, and analyze selected works by American authors to broaden and deepen our own experiences of this country. The selections chosen for this class provide a vivid portrait of the unique and varied culture that is America. These selections will trace the changes in attitudes, ideas, and styles that have occurred in our culture over the past several centuries. Lastly, these works of literature represent some of the finest writing American authors have produced.

• A minimum requirement of 12 compositions, familiarizing students with expository, persuasive, and creative writing, provides a firm foundation for English II students to excel as writers. A researched based essay is a core component of this course requiring students to interact with academic databases and use MLA formatting properly.

COURSE TITLE: Honors English II COURSE #: 221 COURSE LENGTH: Year-Long (1 credit) GRADE LEVEL: 10 PREREQUISITE: English I / Instructor Recommendation

CORE TEXTS: The Adventures of Huckleberry Finn, Our Town, The Catcher in the Rye DESCRIPTION: Class goals in Honors American Literature are to read, appreciate, and analyze selected works by American authors to broaden and deepen our own experiences of this country. The selections chosen for this class provide a vivid portrait of the unique and varied culture that is America. These selections will trace the changes in attitudes, ideas, and styles that have occurred in our culture over the past several centuries. Lastly, these works of literature represent some of the finest writing American authors have produced. Honors students are challenged to articulate the many ways written texts mediate cultural desires and anxieties.

• A minimum requirement of 12 compositions, familiarizing students with expository, persuasive and creative writing, provides a firm foundation for English II students to excel as writers. A researched based essay is a core component of this course requiring students to interact with academic databases and use MLA formatting properly.

COURSE TITLE: English III COURSE #: 239 COURSE LENGTH: Year-Long (1 credit) GRADE LEVEL: 11

PREREQUISITE: English II / Instructor Recommendation

CORE TEXTS: Beowulf, Macbeth

DESCRIPTION: The English III course at Christian Brothers High School affords students an introduction to British literature in a chronological format focusing on the development of language and literature in its historical context. Throughout the course, a growing awareness of literary and poetic terms will enable students to speak and write coherently and persuasively about the works they study.

- Students will read and analyze texts on their own and participate in class discussions as well as participate in close reading exercises as a class to hone their comprehension skills.
- Ongoing vocabulary/etymology study and outside reading are part of the course as is a review of grammatical concepts as they relate to composition.
- A minimum requirement of 14 compositions, familiarizing students with expository, persuasive and creative writing, provides a firm foundation for English III students to excel as writers. A researched based essay is a core component of this course requiring students to interact with academic databases and use MLA formatting properly.

COURSE TITLE: English III COURSE #: 232 COURSE LENGTH: Year-Long (1 credit) GRADE LEVEL: 11 PREREQUISITE: English II CORE TEXTS: Beowulf, Macbeth, 1984 DESCRIPTION: The English III course at Christian Brothers High School affords students the opportunity to study British literature in a chronological format focusing on the development of language and literature in its historical context. Throughout the course, a growing awareness of literary and poetic terms will enable students to speak and write precisely and persuasively about the works they study.

- Students will read and analyze texts on their own and participate in class discussions as well as participate in close reading exercises as a class to hone their comprehension skills.
- Ongoing vocabulary/etymology study and outside reading are part of the course as is a review of grammatical concepts as they relate to composition.
- A minimum requirement of 14 compositions, familiarizing students with expository, persuasive and creative writing, provides a firm foundation for English III students to excel as writers. A researched based, theme essay is a core component of this course requiring students to interact with academic databases and use MLA formatting properly.

COURSE TITLE: Honors English III

COURSE #: 231

COURSE LENGTH: Year-Long (1 credit)

GRADE LEVEL: 11

PREREQUISITE: English II / Instructor Recommendation

CORE TEXTS: Beowulf, Macbeth, 1984

DESCRIPTION: The Honors English III course at Christian Brothers High School affords students the opportunity to study British literature in a chronological format focusing on the development of language and literature in its historical context.

- Emphasis is placed on close reading of texts and analysis of literary technique. Students will be urged to go beyond the literal reading of texts to develop a greater appreciation of the tools authors and poets commonly use to create meaning. Throughout the course, a growing awareness of literary and poetic terms will enable students to speak and write precisely and persuasively about the works they study.
- The Honors English III course will relý heavily on a seminar approach to explóre assigned texts. Students will share in the responsibility of shedding light on the works and be expected to participate actively in discussions.
- Ongoing vocabulary/etymology study and outside reading are part of the course as is a review of grammatical concepts as they relate to composition.
- A minimum requirement of 14 compositions, familiarizing students with expository, persuasive and creative writing, provides a firm foundation for Honors English III students to excel as writers. A researched based, theme essay is a core component of this course requiring students to interact with academic databases and use MLA formatting properly.

COURSE TITLE: English IV

COURSE #: 249

COURSE LENGTH: Year-Long (1 credit)

GRADE LEVEL: 12

PREREQUISITE: Successful Completion of English I, II, & III

CORE TEXTS: Hamlet, Oedipus the King, Death of Salesman

DESCRIPTION: This course explores World Literature as organized into four central themes: Nature, Truth and Justice, Identity, Death and Eternity. Each theme has poetry, a short story, a play and a novel. Plays covered include Othello, Death of a Salesman, Hamlet and Oedipus Rex. Eight outside reading books are taken, one from the summer.

- 600 vocabulary words from the literature are studied.
- Twenty themes are written.
- Grammar exercises based on common student errors in themes in writing are assigned.
- Summer Reading requirement (2 works).

COURSE TITLE: English IV COURSE #: 242 COURSE LENGTH: Year-Long (1 credit) GRADE LEVEL: 12 PREREQUISITE: Successful Completion of English I, II, & III

CORE TEXTS: Hamlet, Oedipus the King, Death of Salesman

DESCRIPTION: English IV is a survey course covering World Literature, from the Middle East, Europe, Africa and North America. Students will explore the subject via myth and genre, exploring the short story, drama, and poetry. Through classroom discussion and individual analysis, students will become familiar with the major themes, writers, and works of these genres.

- Student writing skills will be developed through the completion of 16 essays, allowing for a broad range of expository and creative writing assignments.
- Vocabulary development is a continued focus of the course as well. Finally, through the outside reading program, students are exposed to a wide variety of novels, with the goal of developing lifelong readers.
- Summer Reading requirement (2 works).

COURSE TITLE: Honors English IV

COURSE #: 244

COURSE LENGTH: Year-Long (1 credit)

GRADE LEVEL: 12

PREREQUISITE: English III / Instructor Recommendation

CORE TEXTS: Hamlet, Oedipus the King, Death of Salesman, The Glass Menagerie, Cold Mountain

DESCRIPTION: The Honors English IV course at Christian Brothers High School affords student the opportunity to explore major themes in World Literature in a wide variety of genres and across historical contexts. Emphasis is placed on close reading of critical passages and analysis of literary technique. Students will be urged to go beyond the literal reading of texts to develop a greater appreciation of the tools authors and poets commonly use to create meaning. Throughout the course, a growing awareness of literary and poetic terms will enable students to speak and write precisely and persuasively about the works they study.

- The Honors English IV course will rely heavily on a seminar approach to explore assigned texts. Students will share in the responsibility of shedding light on the works and be expected to participate actively in discussions.
- Ongoing vocabulary study and outside reading are part of the course as is a review of grammatical concepts as they relate to composition.
- A minimum requirement of 16 compositions, familiarizing students with both expository and creative writing, provides a firm foundation for Honors English IV students to excel as undergraduate writers. Summer Reading requirements (3 works)

(Approximately \$30.00 to cover paperback or eBook editions of supplementary reading.)

COURSE TITLE: Advanced Placement Literature and Composition COURSE #: 241 COURSE LENGTH: Year-Long (1 credit) GRADE LEVEL: 12 PREREQUISITE: English III / Instructor Recommendation CORE TEXTS: Hamlet, Oedipus the King, Antigone, Inferno, Crime and Punishment, All the Pretty Horses, Metamorphosis, In Cold Blood, Life of Pi, Death of a Salesman DESCRIPTION: The Advanced Placement Course in English Literature and Composition challenges students with an in-depth analysis of literature by genre, focusing on the short story, poetry, novel, and drama. In each phase students engage texts from a wide range of historical, cultural, and political arenas. All phases require much reading and in-depth analytical themes, often involving research. AP English students read both broadly and deeply — at least ten major works are covered as well as a wealth of shorter fiction and poetry.

- Emphasis is placed on close reading of critical passages and analysis of literary technique. Students must go beyond the literal reading of texts and develop a greater appreciation of the tools authors and poets commonly use to create meaning. Throughout the course, a growing awareness of literary and poetic terms will enable students to speak and write precisely and persuasively about the works they study.
- Targeted practice for the AP exam is provided in each quarter with sample multiple choice questions and essay prompts covering prose and verse. A complete practice exam is also provided in the fourth quarter several weeks prior to the actual test.
- Ongoing vocabulary study and outside reading requirements are tailored to the AP student. Grammatical, rhetorical, and stylistic concepts are covered as they relate to composition.
- A minimum requirement of 20 compositions, familiarizing students with both expository and creative writing, provides a firm foundation for AP English students to excel as undergraduate writers. Some writing assignments are timed.
- Summer Reading requirements (4 works)

(Approximately \$150.00 to cover cost of AP Literature exam as well as paperback, or eBook, editions of assigned supplementary reading.)

COURSE TITLE: Directed Studies I COURSE #: 214 COURSE LENGTH: Year-Long (1 credit) GRADE LEVEL: 9 PREREOUISITE: None

DESCRIPTION: Students will be assessed for current reading skills. Results will be used to place each student in a curriculum designed to improve his reading skills in fiction and nonfiction. Course includes development of high school study skills.

COURSE TITLE: Directed Studies II COURSE #: 224 COURSE LENGTH: Year-Long (1 credit) GRADE LEVEL: 10 PREREQUISITE: None DESCRIPTION: Focus is on further development of high school study skills. English teachers and Directed Studies II teachers will collaborate to facilitate application of study skills to assignments in English.

### **FINE ARTS/VISUAL ARTS**

The Department of Fine Arts at CBHS hosts a diverse and enriched selection of in-school courses and out-of-school ensembles and opportunities for all students, regardless of previous experience or proficiency in any given area: vocal, instrumental, theatrical, and visually artistic. The Fine Arts faculty are exceptionally competent in their crafts, but are also highly passionate about the educational and developmental aspects of the lives of students. Students who pursue any type of Fine Art, from those just stepping into a given area to those who have much experience, find their lives more enriched, their school day more fulfilling, and their high school experience more personal and memorable. The goal of each Fine Arts teacher is to help all of our students experience the Fine Arts in such a way that our students walk away incredibly proud of their accomplishments and part of a family of fellow artists who appreciate their talent and work.

The Band, Choral, Theatrical, and Visual Arts programs connect student learning in the arts to a wide spectrum of academic and social activities. Research shows that what students learn in the arts helps them master other subjects, such as reading and math. Students who participate in the arts often improve their achievement in other realms of learning. Students with high arts involvement perform better on standardized achievement tests than students with low arts involvement. Moreover, students involved in the arts watch fewer hours of TV, participate in more community service, report less boredom in school, and have high marks in critical thinking. Performing groups (band, choir, theatre) create a sense of community in the students different than that which is normally achieved in the classroom setting. Visual arts classes help broaden conceptual thinking, communication skills, cooperative decisions, and increased observations and interpretation skills. Groups of students must work together every day and hold each other accountable for their performance level.

The Band program offers beginning to advanced instrumental performance opportunities that focus providing music and entertainment for school and civic functions, teaching students the art of music through performance, and assisting in providing scholarships to college in music and band. The art of music empowers and pushes students daily to engage in this magnificent art form. The traditions of our unique band program provide long-rooted connections for students, who then in turn help it to prosper for generations to come. The program changes the lives of students in it every day. The Developmental Band courses are designed to develop a student's abilities on a band instrument in preparation for acceptance into the Christian Brothers Honors Band. Students are given a band instrument and practice alone and rehearse in groups until proficiency is met as determined by the band director. Once proficiency has been reached, students are then enveloped into the Honors Band, Pep Band, and for many, the Historic Band.

The Visual Arts program is designed to instill in students specific techniques that focus on observation, envisioning, innovation, and collaboration as part of meeting critical goals for the CBHS experience as a whole. The studio art classes encourage students to be creative thinkers who can evaluate, organize, produce innovative solutions to complex challenges, and explore how practical understanding of fundamental concepts will aid in their experiences out in the real world. Students explore a wide range of artistic mediums as they complete varying levels of artistic tasks all the while pursing self-expression and realization about the world around them. Classes begin at the beginner level (Art I) and continue through to advanced exploration (Art IV).

The Theatre program is a benefit to our students in every facet. Through careful and meticulous training of the body, voice, and mind, students walk away from this training with an enhanced ability to comprehend text, a heightened awareness of how they use their bodies and its effect on others, and a new confidence in the empowerment of their own voice. In addition to these essential assets to becoming a rare and cultivated individual, a quality theatre training program seeks to develop the students' imagination and creative outlook; preparing them in turn to approach future employment opportunities with an ability to think creatively in developing unique solutions to workplace obstacles. Acting classes during school range from introductory courses (Acting I) to more advanced courses (Acting IV, Film Production, etc.). Brothers on Stage is the after school theatrical program that performs many varying works each year on the main stage at the school, and around the community, as well as competitive venues.

The Choral program offers in-school and out-of-school opportunities for students who wish to engage, learn, and explore the world of vocal expression. The students in the choral program are made up of an incredibly diverse collection of young men. The vocal ensembles are comprised of athletes (football, baseball, basketball, rugby, etc.), LaSallian scholars, SGA leaders, Spirit leaders, and more. It is an incredible mix of students who all come together to find brotherhood and connection through music. Men's Chorus is the largest group, and meets during the school day. Repertoire ranges from Medieval and Classical to pop, jazz, tribal, and contemporary choral literature. Honors Chorus meets outside of the school day, is more select, and serves the same regarding GPA as other honors chorus.

Repertoire focuses on harder selections mainly from modern choral composers. SoundWave is a smaller, advanced, selective, after-school ensemble that focuses solely on modern pop, ballad, jazz, and contemporary literature. Other groups are utilized throughout the year such as octets, quartets, and soloists. Students can audition for All West TN and All State TN honor choirs through our program.

#### THEATRE

COURSE TITLE: Acting I COURSE #: 361 COURSE LENGTH: Semester (.5 credit) GRADE LEVEL: 10-12 PREREQUISITE: None

DESCRIPTION: This is a course for students possessing a desire to dynamically learn about the art and technique of acting. Students will gain a foundational understanding of key terminology such as action, (scene) analysis, as-if, beat, beat change, character, given circumstances, living in the moment, physical activity, through-action, obstacle and objective, as well as be introduced to vocal and physical techniques that will serve as aids not only in the theatre, but in the empowerment their everyday lives. Time will be used efficiently to ensure the optimal growth of each individual student. Through well-structured mental and physical training, influenced by the work of Anne Bogart, Rudolf Laban, Cecily Berry, Konstantin Stanislavsky, and more, students will gain a basic understanding of what acting is in its simplest and truest nature and how to apply it's tools both to the classroom and their daily lives.

• This course is a blended environment of acting, performance, lecture, in-the-field camera exploration, scripting, and video editing. Students will be assessed using a variety of forms ranging from quantitative assessments (tests, homework, quizzes) and qualitative assessments (acting, performance, scripting, creation, filming, and editing).

COURSE TITLE: Freshman Acting I COURSE #: 371 COURSE LENGTH: Semester (.5 credit) GRADE LEVEL: 9 PREREQUISITE: None

DESCRIPTION: This is a course for students possessing a desire to dynamically learn about the art and technique of acting. Students will gain a foundational understanding of key terminology such as action, (scene) analysis, as-if, beat, beat change, character, given circumstances, living in the moment, physical activity, through-action, obstacle and objective, as well as be introduced to vocal and physical techniques that will serve as aids not only in the theatre, but in the empowerment their everyday lives. Time will be used efficiently to ensure the optimal growth of each individual student. Through well-structured mental and physical training, influenced by the work of Anne Bogart, Rudolf Laban, Cecily Berry, Konstantin Stanislavsky, and more, students will gain a basic understanding of what acting is in its simplest and truest nature and how to apply its tools both to the classroom and their daily lives.

• This course is a blended environment of acting, performance, lecture, in-the-field camera exploration, scripting, and video editing. Students will be assessed using a variety of forms ranging from quantitative assessments (tests, homework, quizzes) and qualitative assessments (acting, performance, scripting, creation, filming, and editing).

COURSE TITLE: Acting II

COURSE #: 362

COURSE LENGTH: Semester (.5 credit)

GRADE LEVEL: 10-12

PREREQUISITE: Acting I, or teacher's approval.

DESCRIPTION: This is a course for students possessing a desire to dynamically learn about the varying methodologies of the technique and art of acting as it is generally practiced throughout western culture. Students will continue in foundational practicum of acting techniques acquired in Acting I. Time will be used efficiently to ensure the optimal growth of each individual student. Through well-structured mental and physical training, influenced by the work of Konstantin Stanislavsky, Richard Boleslavsky, Stella Adler, Lee Strasberg, Uta Hagen, Sandford Meisner and more, students will gain a basic understanding of what acting is in its simplest and truest nature and how to apply it's tools both to the classroom and their daily lives.

• This course is a blended environment of acting, performance, lecture, in-the-field camera exploration, scripting, and video editing. Students will be assessed using a variety of forms ranging from quantitative assessments (tests, homework, quizzes) and qualitative assessments (acting, performance, scripting, creation, filming, and editing).

COURSE TITLE: Freshman Acting II COURSE #: 372 COURSE LENGTH: Semester (.5 credit) GRADE LEVEL: 9 PREREQUISITE: Acting I, or teacher's approval.

DESCRIPTION: This is a course for students possessing a desire to dynamically learn about the varying methodologies of the technique and art of acting as it is generally practiced throughout western culture. Students will continue in foundational practicum of acting techniques acquired in Acting I.

Time will be used efficiently to ensure the optimal growth of each individual student. Through well-structured mental and physical training, influenced by the work of Konstantin Stanislavsky, Richard Boleslavsky, Stella Adler, Lee Strasberg, Uta Hagen, Sandford Meisner and more, students will gain a basic understanding of what acting is in its simplest and truest nature and how to apply it's tools both to the classroom and their daily lives.

• This course is a blended environment of acting, performance, lecture, in-the-field camera exploration, scripting, and video editing. Students will be assessed using a variety of forms ranging from quantitative assessments (tests, homework, quizzes) and qualitative assessments (acting, performance, scripting, creation, filming, and editing).

COURSE TITLE: Acting III COURSE #: 363 COURSE LENGTH: Semester (.5 credit) GRADE LEVEL: 10-12 PREREQUISITE: Acting I and II, and teacher's approval. Space is limited. DESCRIPTION: This course is a practical exploration of the technique of acting for television and film. Students will develop work using the tools of television, film, and video production; conceptualizing ideas, building a script, planning production schedules, acting, directing and

editing.

• This course is a blended environment of acting, performance, lecture, in-the-field camera exploration, scripting, and video editing. Students will be assessed using a variety of forms ranging from quantitative assessments (tests, homework, quizzes) and qualitative assessments (acting, performance, scripting, creation, filming, and editing).

COURSE TITLE: Acting IV

COURSE #: 364

COURSE LENGTH: Semester (.5 credit)

GRADE LEVEL: 10-12

PREREQUISITE: Acting I, II, and III, or teacher's approval. Space is limited.

DESCRIPTION: This course is a participation in production class. Students will conceptualizing ideas, build scripts, plan production schedules, create marketing tools, and help design and edit production related projects which serve as aids to Brothers on Stage.

• This course is a blended environment of acting, performance, lecture, in-the-field camera exploration, scripting, and video editing. Students will be assessed using a variety of forms ranging from quantitative assessments (tests, homework, quizzes) and qualitative assessments (acting, performance, scripting, creation, filming, and editing).

COURSE TITLE: Stage Art and Design COURSE #: 395 COURSE LENGTH: Year-Long (1 credit)

GRADE LEVEL: 10-12

DESCRIPTION: This course is designed to develop student's abilities in the area of technical theater and theatrical design. Students will work to master the design skills in the areas of set, costuming, properties, theatrical lighting and sound. Students will collaborate in order to create designs for CBHS Theatre's upcoming season, serving as a critical part of the of production process. Students will be responsible for developing three of the seven theatrical events that CBHS Theatre produces annually.

FORMAT & ASSESSMENT: Students will be assessed using a variety of forms ranging from quantitative assessments (tests, homework, quizzes) and qualitative assessments (design, creation, staging, and technical ability).

GRADES: instructor Approval Required. Space is limited. This is a year-long class, receiving a 1.0 fine art credit.

CHORUS

COURSE TITLE: Men's Chorus I COURSE #: 381 COURSE LENGTH: Year-Long (1 credit) GRADE LEVEL: 9, 10, 11, 12 PREREQUISITE: None

DESCRIPTION: This is an entry-level, year-long course introducing the basic tools of vocal/choral music. The course involves the daily experience of vocalizing, singing choral music, and music theory to broaden students' musicality, creativity, self-confidence, and musical/vocal skills. Students will perform a concert at the end of each semester in proper choral attire (tuxedos) and will also sing at other functions as time and progress of learning permits. The repertoire of music will consist of choral works, both a cappella and accompanied, that range from Medieval and Renaissance to Modern 20th Century, Jazz, and even tribal works. Students will also be required, as needed, to be a part of musicals with Brothers on Stage. Students involved in Men's Chorus (Brothers of Faith) should be dedicated and serious about learning and performing vocal/choral music. This course is open to all students in all grades by way of a simple audition. Students must be prepared to take the course for both fall and spring terms as this is a performance-based course that builds over two semesters.

COURSE TITLE: Honors Chorus I COURSE #: 392 COURSE LENGTH: Year-Long (1 credit) GRADE LEVEL: 9, 10, 11, 12 PREREQUISITE: None DESCRIPTION: In addition to Men's Chorus I commitments, Honors Chorus I members must attend rehearsals outside of the school day and invest extra time in learning and performing extra music that is above and beyond what is done in regular Men's Chorus I. To be considered, students must audition and must interview to be considered.

COURSE TITLE: Men's Chorus II COURSE #: 382 COURSE LENGTH: Year-Long (1 credit) GRADE LEVEL: 10, 11, 12 PREREQUISITE: None DESCRIPTION: This is an intermediate-level, year-long course furthering the basic tools of vocal/choral music. The course involves the daily experience of vocalizing, singing choral music, and music theory to broaden students' musicality, creativity, self-confidence, and musical/vocal skills. Students will perform a concert at the end of each semester in proper choral attire (tuxedos) and will also sing at other functions as time and progress of learning permits. The repertoire of music will consist of choral works, both a cappella and accompanied, that range from Medieval and Renaissance to Modern 20th Century, Jazz, and even tribal works. Students will also be required, as needed, to be a part of musicals with Brothers on Stage. Students involved in Men's Chorus (Brothers of Faith) should be dedicated and serious about learning and performing vocal/choral music. This course is open to all students in all grades by way of a simple audition. Students must have successfully completed Men's Chorus I to enroll. Students must be prepared to take the course for both Fall and Spring terms as this is a performance-based course that builds over two semesters.

COURSE TITLE: Honors Chorus II COURSE #: 385 COURSE LENGTH: Year-Long (1 credit) GRADE LEVEL: 10, 11, 12 PREREQUISITE: None DESCRIPTION: In addition to Men's Chorus II commitments and requirements, Honors Chorus II members must attend rehearsals outside of the school day and invest extra time in learning and performing extra music that is above and beyond what is done in regular Men's Chorus II. To be considered, students must audition and must interview to be considered.

COURSE TITLE: Men's Chorus III COURSE #: 383 COURSE LENGTH: Year-Long (1 credit) GRADE LEVEL: 11, 12 PREREQUISITE: None

DESCRIPTION: This is an advanced-level, year-long course introducing the basic tools of vocal/choral music. The course involves the daily experience of vocalizing, singing choral music, and music theory to broaden students' musicality, creativity, self-confidence, and musical/vocal skills. Students are expected to serve as section leaders and help with sectionals outside of school hours as needed. Students will perform a concert at the end of each semester in proper choral attire (tuxedos) and will also sing at other functions as time and progress of learning permits. The repertoire of music will consist of choral works, both a cappella and accompanied, that range from Medieval and Renaissance to Modern 20th Century, Jazz, and even tribal works. Students will also be required, as needed, to be a part of musicals with Brothers on Stage. Students involved in Men's Chorus (Brothers of Faith) should be dedicated and serious about learning and performing vocal/choral music. This course is open to all students in all grades by way of a simple audition. Students must have successfully completed Men's Chorus I and II to enroll. Students must be prepared to take the course for both Fall and Spring terms as this is a performance-based course that builds over two semesters.

COURSE TITLE: Honors Chorus III COURSE #: 386 COURSE LENGTH: Year-Long (1 credit) GRADE LEVEL: 11, 12 PREREQUISITE: None DESCRIPTION: In addition to Men's Chorus III commitments and requirements, Honors Chorus III members must attend rehearsals outside of the school day and invest extra time in learning and performing extra music that is above and beyond what is done in regular Men's Chorus III. To be considered, students must audition and must interview to be considered.

#### COURSE TITLE: Men's Chorus IV COURSE #: 387 COURSE LENGTH: Year-Long (1 credit) GRADE LEVEL: 12 PREREQUISITE: None

DESCRIPTION: This is an advanced-level, year-long course introducing the basic tools of vocal/choral music. The course involves the daily experience of vocalizing, singing choral music, and music theory to broaden students' musicality, creativity, self-confidence, and musical/vocal skills. Students are expected to serve as section leaders and help with sectionals outside of school hours as needed. Students should also expect to learn about conducting skills and use them on a practicum basis in the classroom. Students excelling in conducting may be selected to conduct one piece on a given concert. Students will perform a concert at the end of each semester in proper choral attire (tuxedos) and will also sing at other functions as time and progress of learning permits. The repertoire of music will consist of choral works, both a cappella and accompanied, that range from Medieval and Renaissance to Modern 20th Century, Jazz, and even tribal works. Students will also be required, as needed, to be a part of musicals with Brothers on Stage. Students involved in Men's Chorus (Brothers of Faith) should be dedicated and serious about learning and performing vocal/choral music. This course is open to all students in all grades by way of a simple audition. Students must have successfully completed Men's Chorus I, II, and III to enroll. Students must be prepared to take the course for both Fall and Spring terms as this is a performance-based course that builds over two semesters.

COURSE TITLE: Honors Chorus IV COURSE #: 388 COURSE LENGTH: Year-Long (1 credit) GRADE LEVEL: 12 PREREQUISITE: None DESCRIPTION: In addition to Men's Cho

DESCRIPTION: In addition to Men's Chorus IV commitments and requirements, Honors Chorus IV members must attend rehearsals outside of the school day and invest extra time in learning and performing extra music that is above and beyond what is done in regular Men's Chorus IV. To be considered, students must audition and must interview to be considered.

COURSE TITLE: Honors Chorus IV COURSE #: 388 COURSE LENGTH: Year-Long (1 credit) GRADE LEVEL: 12 PREREQUISITE: None DESCRIPTION: In addition to Men's Cho

DESCRIPTION: In addition to Men's Chorus IV commitments and requirements, Honors Chorus IV members must attend rehearsals outside of the school day and invest extra time in learning and performing extra music that is above and beyond what is done in regular Men's Chorus IV. To be considered, students must audition and must interview to be considered.

## ART

COURSE TITLE: Art Studio I COURSE #: 358 COURSE LENGTH: Year-Long (1 credit) GRADE LEVEL: 9, 10, 11, 12 PREREQUISITE: None DESCRIPTION: This foundational course introduces students to creative concepts through progressive skill development. Elements and principles of art are presented as students are guided to producing original artworks in a variety of media – both two-dimensional traditional and digital as well as three dimensional instruction. Art history and critique are introduced at this level.

The course is designed to:

- Provide students with understanding and ability to use the elements and principles of art.
- Explore and learn to use art media, techniques and processes to communicate context, ideas and themes.
- Develop an understanding of the relationship among art forms, and between their work and the work of others
- Develop a broad understanding of the meaning and impact of visual arts and the visual world.
- Increase an individual's ability to think critically about concrete and abstract concepts.

COURSE TITLE: Art Studio II

COURSE #: 359

COURSE LENGTH: Year-Long (1 credit)

GRADE LEVEL: 10, 11, 12

PREREQUISITE: Completion of Art Studio I and recommendation of instructor.

DESCRIPTION: Art II is designed for students who have successfully completed Art I and demonstrated an understanding of the foundations. Art II students are encouraged to refine and add to skills learned. Building upon their strengths, students are to develop personal style and expression at this level. Critical thinking skills are encouraged with more complex creative challenges, research, and criticism of visual art.

• Students will exhibit artwork and will assemble portfolios that reflect personal growth and demonstrate successful completion of Art II student learning experiences.

- Students are expected to use a broad variety of media, techniques, processes, and tools to:
  - Create original, complex compositions that reflect personal growth
  - Solve visual problems in a variety of media
  - Communicate ideas through their work and critique
  - Explore and learn to use additional art media, techniques and processes to communicate context, ideas and themes.
  - Demonstrate an understanding of the relationship among art forms, and between their work and the work of others
  - Increase an individual's ability to think critically about concrete and abstract concepts.

#### COURSE TITLE: Art Studio III COURSE #: 360 COURSE LENGTH: Year-Long (1 credit) GRADE LEVEL: 11, 12

PREREQUISITE: Completion of Art Studio I and recommendation of instructor.

DESCRIPTION: Art III is the gateway for serious art students interested in beginning work on building a quality focused art portfolio. This advanced level course concentrates on facilitating student development of personal style/expression and exploration. Students take a more active role in the planning and approach to their work.

The course is designed to:

- Encourage students to chose media, techniques, processes, and tools to:
  - Create original, complex compositions that reflect personal growth
    - Solve visual problems
    - Communicate ideas through their work and critique
- Provide opportunities for more in-depth experiences and complex work.
- Increase an individual's ability to think critically about concrete and abstract concepts

COURSE TITLE: Art Studio IV

COURSE #: 378

COURSE LENGTH: Year-Long (1 credit)

GRADE LEVEL: 12

PREREQUISITE: Completion of Art Studio III and portfolio. Recommendation of instructor DESCRIPTION: Art IV prepares serious art students in pursuit of a career in the arts. Continued personal work from Art III and refinement of senior portfolio is expected. Students will additionally be presented with additional opportunities for research, critique, formulating artist statements and display of their work.

The course is designed to:

- Allow students to continue and refine portfolio quality work
- Participate in National Portfolio Day presentations
- Provide experiences forming artist statements regarding their work.
- Strengthen students understanding of art history and influence on their work.

VISUAL ARTS

COURSE TITLE: Digital Art COURSE #: 370 OCURSE LENGTH: Year-Long (1 Credit) GRADE LEVEL: 11-12 PREREQUISITE: Knowledge of Photoshop recommended Teacher Approval DESCRIPTION: Development of foundational drawing, design & composition skills using traditional mediums & emerging medium offered by technology. Through drawing programs, scanning & digital camera students learn how & when to use computers to develop creative skills. COURSE TITLE: Theatrical Arts I COURSE #: 379 COURSE LENGTH: Year-Long (1 Credit) GRADE LEVEL: 11-12 PREREQUISITE: None DESCRIPTION: This course provides a workshop setting for students who desire to learn advanced techniques and gain practical experience in all phases of theatre, T.V. production, and forensic activities. This course requires extensive after-class hours and weekend.

COURSE TITLE: Theatrical Arts II COURSE #: 389 COURSE LENGTH: Year-Long (1 Credit) GRADE LEVEL: 11, 12 PREREQUISITE: 379 and teacher approval

DESCRIPTION: An advanced workshop class for students who desire to learn advanced techniques and gain practical experience in all phases of theatre, T.V. production, and forensic activities. This course requires extensive after-class hours and weekends.

BAND

COURSE TITLE: Music History COURSE #: 352 COURSE LENGTH: Semester (.5 credit) GRADE LEVEL: 9 - 12 PREREQUISITE: None DESCRIPTION: Music History is a fine art elective that focuses on the History of Western Music beginning with Prehistoric Music and concluding with Modern Music ranging from the European Classical to American Roots Music.

The course is designed to:

- Broaden students' exposure to a wide variety of music
- Teach students a core knowledge of music history

COURSE TITLE: Developmental Band (Beginner and Intermediate Band) COURSE #: 309 COURSE LENGTH: Year-Long (1 credit) GRADE LEVEL: 9, 10, 11 PREREQUISITE: None DESCRIPTION: The Developmental Band courses are designed to develop a student's abilities on a band instrument in preparation for acceptance into the Christian Brothers Honors Band. Students are given a band instrument and practice alone and rehearse in groups until proficiency is met as determined by the band director.

Resources: A band instrument selected from the following as available: Flute, Oboe, Clarinet, Saxophone, Bassoon, Trumpet, French Horn, Trombone, Baritone/Euphonium, Tuba, Percussion (Mallet, Tympani, Snare), String Bass

The course is designed to begin or improve students' ability on a particular band instrument for acceptance into the Christian Brothers Honor Band.

COURSE TITLE: Honors Band COURSE #: 341 COURSE LENGTH: Year-Long (1 credit) GRADE LEVEL: 9, 10, 1, 12 PREREQUISITE: Proficiency on one of the following instruments: Flute, Oboe, Clarinet, Saxophone, Bassoon, Trumpet, French Horn, Trombone, Baritone/Euphonium, Tuba, Percussion (Mallet, Tympani, Snare), String Bass DESCRIPTION: The Honors Band is the "Oldest High School Band in America" founded in 1872.

The band meets in the last period of the day and performs concerts, concert festivals, and at athletic events. Honor Band students are required to meet once after school a week for their sectional time and maintain one 30 min. lesson once a week after school with a private instructor.

Resources: Resources included a band instrument, postings on Haiku including a calendar of practices, performances and assignments, band music from the Christian Brothers Band Library, a lyre and flip folder, reeds, oils, mutes and other band supplies.

The course is designed to:

- Provide music and entertainment for school and civic functions.
- Teach students the art of music through performance.
- Assist in providing scholarships to college in music and band.

#### **FOREIGN LANGUAGES**

Language and communication are both vital to the growth of our students. We must help our students become linguistically skilled and culturally aware in order to communicate successfully in a diverse American and global society. All students who are able, should develop and maintain proficiency in at least one other language, modern or classical. Christian Brother High School offers four years of either Latin, French or Spanish. In all our language classes, students learn by using the target language. In modern language classes, students work every day to master written and oral expression and comprehension, as well as to increase awareness of cultural topics and current events. In Latin, students apply grammatical analysis to translate and interpret classical Latin text and learn to draw parallels between ancient and modern culture.

FOREIGN LANGUAGES

COURSE TITLE: French I COURSE #: 412 COURSE LENGTH: Year-Long (1 credit) GRADE LEVEL: 9 PREREQUISITE: None

DESCRIPTION: Designed both for those who have experience as well as first-time French students. Students will develop reading, writing, listening and speaking in real-world situations. Homework focuses on practice and preparation. Classroom activities are interactive and communicative. Students will grow in their knowledge of the geography and cultures in the French-speaking world.

COURSE TITLE: French II COURSE #: 422 COURSE LENGTH: Year-Long (1 credit) GRADE LEVEL: 10 PREREQUISITE: Successful Completion of French I DESCRIPTION: Designed both for those who plan to take French III and IV, this course stresses a broad range of vocabulary and advanced grammatical constructions. Students should expect longer reading assignments with a focus on strategies for comprehension.

COURSE TITLE: French II COURSE #: 429 COURSE LENGTH: Year-Long (1 credit) GRADE LEVEL: 10 PREREQUISITE: Successful Completion of French I DESCRIPTION: Designed for those students who will take only two years of French. Classroom activities continue to focus on communicative activities. Reading and writing activities focus on real-world situations and cultural topics.

COURSE TITLE: Honors French III COURSE #: 432 COURSE LENGTH: Year-Long (1 credit) GRADE LEVEL: 11 PREREQUISITE: Successful Completion of French II DESCRIPTION: Students use more complex grammar and vocabulary in oral production. Accuracy in written work is emphasized. College text focuses on history and culture of French speaking countries. Class discussions are in French. Dual enrollment at CBU is optional. (There is an \$85 course fee.)

COURSE TITLE: Honors French IV COURSE #: 442 COURSE LENGTH: Year-Long (1 credit) GRADE LEVEL: 12 PREREQUISITE: Successful Completion of French III DESCRIPTION: College text has literary selections and short films in French. Writing assignments are more frequent. Students present reports on topics they have researched

assignments are more frequent. Students present reports on topics they have researched. Some preparation for college placement tests. Dual enrollment at CBU is optional. (There is an \$85 course fee.)

## LATIN

COURSE TITLE: Latin I COURSE #: 413 COURSE LENGTH: Year-Long (1 credit) GRADE LEVEL: 9 PREREQUISITE: None DESCRIPTION: In Latin I students acquire basic translation and grammatical skills, as well as an overview of daily Roman life, through reading passages of increasing complexity. Inflections, vocabulary, and English derivatives are memorized out of class.

COURSE TITLE: Latin II COURSE #: 423 COURSE LENGTH: Year-Long (1 credit) GRADE LEVEL: 10 PREREQUISITE: Average of 90 or better in Latin 1 – 413 and teacher 's recommendation. DESCRIPTION: Latin II is a continuation of Latin I with increased emphasis on a student's ability to translate Latin into English through intensive word analysis. Inflections, vocabulary, and English derivatives are memorized out of class.

COURSE TITLE: Latin II COURSE #: 428 COURSE LENGTH: Year-Long (1 credit) GRADE LEVEL: 10 PREREQUISITE: Successful completion of Latin 1 - 413 DESCRIPTION: Latin II is a continuation of Latin I with increased emphasis on a student's ability to translate Latin into English through intensive word analysis. Inflections, vocabulary, and English derivatives are memorized out of class.

COURSE TITLE: Post-Classical Latin Literature COURSE #: 434

COURSE LENGTH: Year-Long (1 credit)

GRADE LEVEL: 11

PREREQUISITE: Latin II with a grade of "B" or higher.

DESCRIPTION: This course will teach students to read St. Jerome's Vulgate in the original Latin. We will study selections from the Gospel of St. John for its theological significance, and from at least one of the synoptic gospels. Some excerpts from the biblical commentaries of St. Thomas Aquinas will discussed, as well as some insights from St. Augustine. Students will hone the reading skills acquired in Latin I & II and learn to read critically, making connections between the Vulgate and the formation of Christian orthodoxy. Students will also learn some common Roman Catholic prayers, novenas, and litanies in the original Latin. Quizzes will cover vocabulary, grammar review, and prayers. Tests will cover translation and thematic analysis.

COURSE TITLE: Honors Latin III COURSE #: 435 COURSE LENGTH: Year-Long (1 credit) GRADE LEVEL: 11 PREREQUISITE: Successful completion of Latin II – 423 with a 90 average or better DESCRIPTION: Latin III Honors focuses on the translation and interpretation of Classical Latin texts. The nature of this course assumes a mastery of basic Latin grammar and syntax. COURSE TITLE: AP Latin COURSE #: 444 COURSE LENGTH: Year-Long (1 credit) GRADE LEVEL: 12 PREREQUISITE: Successful completion of Latin III – 435 with a 90 average or better and instructor permission. DESCRIPTION: AP Latin focuses on the poetry of Vergil's Aeneid and the prose of Caesar's Gallic War. Students will write numerous critical analyses of the Latin texts, explore cultural and historical topics that shed light on the authors' point of view. (There is an AP testing fee.)

I ATIN

COURSE TITLE: Spanish I COURSE #: 411 COURSE LENGTH: Year-Long (1 credit) GRADE LEVEL: 9 PREREOUISITE: None

DESCRIPTION: Designed both for those who have experience as well as first-time Spanish students. Students will develop skills in reading, writing, listening and speaking in real world situations. Homework focuses on practice and preparation. Classroom activities are interactive and communicative. Students will grow in their knowledge of the geography and cultures in the Spanish-speaking world.

COURSE TITLE: Spanish II COURSE #: 421 COURSE LENGTH: Year-Long (1 credit) GRADE LEVEL: 10 PREREQUISITE: At least a B average in Spanish 411 and teacher's recommendation DESCRIPTION: Designed for students who plan to take Spanish III and IV, this course stresses a broad range of vocabulary and advanced grammatical constructions. Continues to develop skills in reading, writing, listening and speaking in Spanish. Students should expect longer, more in-depth assignments with a focus on strategies for comprehension and expression. Students will have opportunities to communicate with Spanish-speaking students via Skype.

COURSE TITLE: Spanish II COURSE #: 427 COURSE LENGTH: Year-Long (1 credit) GRADE LEVEL: 10 PREREQUISITE: Successful completion of Spanish I - 411 DESCRIPTION: Designed for students who plan to take only two years of Spanish. Students will further develop skills of listening, reading, writing and speaking in Spanish. They will learn effective acquisition methods for vocabulary and grammar. Students will grow in their knowledge of current cultural topics in the Spanish-speaking world. Critical thinking will be demanded as students synthesize and re-deploy words and phrases. Finally, the class will encourage students to connect language study with their career ambitions. COURSE TITLE: Honors Spanish III COURSE #: 431 COURSE LENGTH: Year-Long (1 credit) GRADE LEVEL: 11 PREREQUISITE: A average earned from Spanish 421 and teacher 's recommendation. DESCRIPTION: Students use more complex grammar and vocabulary in oral production. Accuracy in written work is emphasized. College-level curriculum focuses on history and culture of Spanish speaking countries. Class discussions are in Spanish. Dual enrollment at CBU is optional. (There is an \$85 course fee.)

COURSE TITLE: Spanish I for Juniors COURSE #: 439 COURSE LENGTH: Year-Long (1 credit) GRADE LEVEL: 11 PREREQUISITE: None DESCRIPTION: Designed both for those who have experience as well as first-time Spanish students. Students will develop basic skills in reading, writing, listening and speaking in real-

students. Students will develop basic skills in reading, writing, listening and speaking in realworld situations. Homework focuses on practice and preparation. Classroom activities are interactive and communicative. Students will grow in their knowledge of the geography and cultures in the Spanish-speaking world.

COURSE TITLE: Honors Spanish IV COURSE #: 441 COURSE LENGTH: Year-Long (1 credit) GRADE LEVEL: 12 PREREQUISITE: A average earned from Spanish 431 and teacher 's recommendation. DESCRIPTION: This course is conducted solely in Spanish. College text has literary selections and short films in Spanish. Writing assignments are more frequent. Students present reports in the target language on topics they have researched. Some preparation for college placement tests. Dual enrollment at CBU is optional. (There is an \$85 course fee.)

COURSE TITLE: AP Spanish COURSE #: 445 COURSE LENGTH: Year-Long (1 credit) GRADE LEVEL: 12 PREREQUISITE: A average earned from Spanish 431 and teacher 's recommendation. DESCRIPTION: Advanced Placement Spanish Language and Culture is a rigorous course designed to help students successfully prepare for the AP Spanish Language and Culture exam. This course will provide opportunities for students to demonstrate their proficiency in Spoken and Written Communication in a variety of situations in the Intermediate to

PreAdvanced range. Students will use a variety of authentic materials (resources created by and intended for native speakers) including: audio, video, non-literary texts such as newspapers and magazine articles and literary texts.

(Course fee: \$20 for access to online text. There is an AP testing fee.)

**COURSE TITLE:** Spanish II for Seniors COURSE #: 449 COURSE LENGTH: Year-Long (1 credit) **GRADE LEVEL: 12** PREREQUISITE: Successful completion of Spanish I for Juniors – 439

DESCRIPTION: Students will further the skills of listening, reading, writing and speaking in Spanish. They will learn effective acquisition methods for vocabulary and grammar. They will grow in their knowledge of current cultural topics in the Spanish-speaking world. Critical thinking will be demanded as students synthesize and re-deploy words and phrases. Finally, the class will encourage students to connect language study with their career ambitions.

# MATHEMATICS

Courses in the Math Department are designed to:

- Enhance problem-solving skills through the study of various topics in mathematics
- Develop critical thinking skills required for solving complex problems
- Increase students' analogical ability by fostering the real-world application of skills learned in class
- Prepare students for college entrance/placement exams (ACT, SAT, etc.)
- Groom students for the rigor of college mathematics courses

COURSE TITLE: Honors Algebra 1

COURSE #: 511

COURSE LENGTH: Year-Long (1 credit)

**GRADE LEVEL:** 9

PREREQUISITE: Students must have a firm understanding of Pre-Algebra. There will also be times where some skills in problem solving will be needed.

DESCRIPTION: This class is an essential for the beginning of your high school career in math. The concepts we discuss will build up the higher level thinking skills required for academic success in the years to come. Topics include but are not limited to using algebraic properties, simple proofs, solving algebraic equations, word problems, factoring polynomials, algebraic fraction operation, polynomial division, ratios, proportions, percentages, exponents, work and mixture problems, functions, linear equations, solving systems of linear equations, inequalities, rational/irrational numbers, and quadratic functions.

- Enhance problem-solving skills through the study of various topics in mathematics
- Develop critical thinking skills required for solving complex problems
- Increase students' analogical ability by fostering the real-world application of skills learned in class
- Prepare students for college entrance/placement exams (ACT, SAT, etc.)
- Groom students for the rigor of college mathematics courses

COURSE TITLE: Algebra 1 COURSE #: 512 COURSE LENGTH: Year-Long (1 credit) GRADE LEVEL: 9

PREREQUISITE: Pre-Algebra/8th grade math

DESCRIPTION: The student will investigate the algebraic concepts that will help them become more proficient in using numerical, analytical, geometrical, and verbal skills in solving problems. Additionally, the students will develop an understanding and proficiency in the skills associated with an Algebra 1 course. Many skills will be reviewed from a basic Pre-Algebra course. Students are taught mathematical concepts that constantly build from prior mathematical studies. Students will touch on many areas of mathematics throughout the course. Some topics covered include: Solving Equations, Solving Inequalities, Graphs and Functions, Linear Equations and Their Graphs, System of Equations and Inequalities, Exponents and Exponential Functions, Polynomials and Factoring, Quadratic Equations and Functions.

The course is designed to:

- Enhance problem-solving skills through the study of various topics in mathematics
- Develop critical thinking skills required for solving complex problems
- Increase students' analogical ability by fostering the real-world application of skills learned in class
- Prepare students for college entrance/placement exams (ACT, SAT, etc.)
- Groom students for the rigor of college mathematics courses

COURSE TITLE: Honors Geometry

COURSE #: 515

COURSE LENGTH: Year-Long (1 credit)

**GRADE LEVEL: 9** 

PREREQUISITE: Students must have a thorough understanding of Algebra I.

DESCRIPTION: This course is designed to introduce the student to logical reasoning skills and a proof based mathematical system that will extend his understanding of geometry, mathematics, and the world around him. The student will accomplish this through a study of inductive and deductive reasoning, an analysis of proof and assumptions and its application to geometry. We will prove triangle congruence, properties of special quadrilaterals, and the basic area formulae leading up to the Pythagorean Theorem. We will also work with similar triangles and trigonometric functions. By studying geometry in a logical proof based manor, the student will better understand the conclusions drawn and be better prepared to extend his own understanding of mathematics and problem solving in the future.

- Enhance special reasoning skills as it related to diagrams and figures.
- Develop logical reasoning skills, drawing conclusions, and avoiding unwarranted assumptions
- Increase students' ability to read critically and find information in mathematics and other courses
- Prepare students for future mathematical proofs, in other courses
- Deepen the students understanding of the inner workings of a mathematical system

COURSE TITLE: Honors Geometry COURSE #: 521 COURSE LENGTH: Year-Long (1 credit) GRADE LEVEL: 10

PREREQUISITE: Students must have a thorough understanding of Algebra I.

DESCRIPTION: This course is designed to introduce the student to logical reasoning skills and a proof based mathematical system that will extend his understanding of geometry, mathematics, and the world around him. The student will accomplish this through a study of inductive and deductive reasoning, an analysis of proof and assumptions and its application to geometry. We will prove triangle congruence, properties of special quadrilaterals, and the basic area formulae leading up to the Pythagorean Theorem. We will also work with similar triangles and trigonometric functions. By studying geometry in a logical proof based manor, the student will better understand the conclusions drawn and be better prepared to extend his own understanding of mathematics and problem solving in the future.

The course is designed to:

- Enhance special reasoning skills as it related to diagrams and figures.
- Develop logical reasoning skills, drawing conclusions, and avoiding unwarranted assumptions
- Increase students' ability to read critically and find information in mathematics and other courses
- Prepare students for future mathematical proofs, in other courses
- Deepen the students understanding of the inner workings of a mathematical system

COURSE TITLE: Geometry

COURSE #: 522

COURSE LENGTH: Year-Long (1 credit)

GRADE LEVEL: 9, 10

PREREQUISITE: Success in the course is dependent upon a thorough understanding of Algebra 1 topics

DESCRIPTION: The objective of this course is to provide a foundation of mathematical concepts and skills commonly known as Geometry. The student will investigate geometric concepts according to the "rule of four" (i.e. numerical, analytical, geometrical, and verbal). Additionally, the students will develop an understanding and proficiency in the skills associated with a Geometry course.

Major topics include (1) The Basics of Geometry, (2) Reasoning and Proof, (3) Parallel and Perpendicular Lines. (4) Triangles and Congruence, (5) Relationships within Triangles, (6)Polygons and Quadrilaterals, (7) Similarity, (8) Introductory Right Triangle Trigonometry, and (9) Circles.

In both individual and cooperative group settings, students will participate in a variety of learning activities including direct instruction, personal-investigation, and project-based learning. Periodic tests and quizzes will assess performance.

- Enhance problem-solving skills through the study of various topics in mathematics
- Develop critical thinking skills required for solving complex problems
- Increase students' analogical ability by fostering the real-world application of skills learned in class
- Prepare students for college entrance/placement exams (ACT, SAT, etc.)
- Groom students for the rigor of college mathematics courses

COURSE TITLE: Honors Algebra 2/Trigonometry

COURSE #: 531

COURSE LENGTH: Year-Long (1 credit)

GRADE LEVEL: 10, 11

PREREQUISITE: Success in the course is dependent upon a thorough understanding of Algebra 1 and Geometry topics.

DESCRIPTION: The objective of this course is to provide a foundation of mathematical concepts and skills commonly known as second year algebra and trigonometry. The course provides students with the opportunity to work with functions represented in a variety of ways according to "The Rule of Four" – graphically, numerically, analytically, and verbally. Furthermore content will emphasize connections among these representations.

• Major topics include:

• (1) Systems of Linear Equations and Inequalities, (2) Matrices,

(3) Quadratic Functions, (4) Polynomial Functions, (5) Roots and Radical Operations, (6) Exponential and Logarithmic Functions, (7) Rational Functions, (8) Right Triangle Trigonometry, (9) Trigonometric Functions and Identities, and (10) Conic Sections.

- In both individual and cooperative group settings, students will participate in a variety of learning activities including direct instruction, personal-investigation, and project based learning. Periodic tests and quizzes will assess performance.
- The Algebra 2/Trigonometry course is completed in a 36-week school year. Approximately twenty-seven weeks are devoted to Algebra topics, and nine weeks are spent covering Trigonometry and Analytic Geometry. Students are expected to participate in class discussions and group projects.

The course is designed to:

- Enhance problem-solving skills through the study of various topics in mathematics
- Develop critical thinking skills required for solving complex problems
- Increase students' analogical ability by fostering the real-world application of skills learned in class
- Prepare students for college entrance/placement exams (ACT, SAT, etc.)
- Groom students for the rigor of college mathematics courses

COURSE TITLE: Algebra 2/Trigonometry

COURSE #: 532

COURSE LENGTH: Year-Long (1 credit)

GRADE LEVEL: 10, 11

PREREQUISITE: Success in the course is dependent upon a thorough understanding of Algebra 1 topics as well as Geometric concepts.

DESCRIPTION: The objective of this course is to provide a foundation of mathematical concepts and skills commonly known as second year algebra and trigonometry. The course provides students with the opportunity to work with functions represented in a variety of ways according to "The Rule of Four" —graphically, numerically, analytically, and verbally. Furthermore content will emphasize connections among these representations.

- Major topics include:
  - (1) Linear Equations, (2) Linear Systems, (3) Matrices, (4) Quadratic Functions, (5) Polynomial Functions, (6) Roots and Radical Operations, (7) Exponential and Logarithmic Functions, (8) Rational Functions, (9) Right Triangle Trigonometry, and (10) Trigonometric Functions.

In both individual and cooperative group settings, students will participate in a variety of learning activities including direct instruction, personal-investigation, and project based learning. Periodic tests and quizzes will assess performance.

The Algebra 2/ Trigonometry course is completed in a 36-week school year. Approximately twenty-seven weeks are devoted to Algebra topics Nine weeks are spent covering Trigonometry. Students are expected to participate in class discussions and group projects.

The course is designed to:

- Enhance problem-solving skills through the study of various topics in mathematics
- Develop critical thinking skills required for solving complex problems
- Increase students' analogical ability by fostering the real-world application of skills learned in class
- Prepare students for college entrance/placement exams (ACT, SAT, etc.)
- Groom students for the rigor of college mathematics courses

COURSE TITLE: Pre-Calculus COURSE #: 541 COURSE LENGTH: Year-Long (1 credit) GRADE LEVEL: 11, 12

PREREQUISITE: You must have a thorough understanding of Algebra I and II, with a working knowledge of basic Geometric and Trigonometric principles. There will also be times where some skills in problem solving will be needed. Possession of a graphing calculator is required. DESCRIPTION: This course is designed to build your knowledge and understanding of the Pre-Calculus concepts needed for success in college-level math courses. Topics for this study will include functions, inverse functions, graphing functions, polynomial and rational functions, complex numbers, exponential and logarithmic functions/equations/models, some trigonometric concepts/graphs, systems of equations/inequalities, matrices and matrix operations, determinants, sums/sequences.

The course is designed to prepare students for Calculus, encourage students to investigate the concepts according to the aspects of the "rule of four" (i.e. numerical, analytical, geometrical, and verbal), broaden the students understanding of trigonometric topics, and to introduce students to concepts of discrete mathematics:

- Identify, graph and solve trigonometric functions and their inverses
- Apply trigonometric identities to solve equations
- Identify and graph relations and functions (linear, quadratic, cubic, polynomial, rational, logarithmic, exponential, and trigonometric)
- Analyze the properties of a function including domain, range, symmetry, maximum, minimum, and average rate of change.
- Apply transformation techniques in order to graph functions
- Determine the real and complex zeros of function using graphing, factoring, and polynomial division.
- Solve and graph exponential and logarithmic functions using log properties.
- Use the multiplication principle of counting, combinations, and permutations to calculate probabilities.
- Investigate arithmetic, geometric, and other sequences along with their associated series.

COURSE TITLE: Honors Calculus

COURSE #: 542

COURSE LENGTH: Year-Long (1 credit)

GRADE LEVEL: 11, 12

PREREQUISITE: Success in the course is dependent upon a thorough understanding of Algebra 1 and Algebra 2 topics as well as Geometric concepts.

DESCRIPTION: The objective of this course is to provide a foundation of mathematical concepts and skills commonly known as Differential and Integral Calculus. The course provides students with the opportunity to work with functions represented in a variety of ways according to "The Rule of Four" — graphically, numerically, analytically, and verbally. Furthermore content will emphasize connections among these representations.

• Major topics include:

• (1) Functions, Limits, and Continuity, (2) The Derivative, (3)

Applications of the Derivative, (4) Integration, (5) Applications of Definite Integration, (6) Transcendental Functions, and (7) Integration Techniques.

In both individual and cooperative group settings, students will participate in a variety of learning activities including direct instruction, personal-investigation, and project based learning. Periodic tests and quizzes will assess performance.

The Honors Calculus course is completed in a 36-week school year. Approximately eighteen weeks are devoted to the calculus of derivatives. Fifteen weeks are spent covering integral calculus. Three weeks are used to review the content. Students are expected to participate in class discussions and group projects.

The course is designed to:

- Enhance problem-solving skills through the study of various topics in mathematics
- Develop critical thinking skills required for solving complex problems
- Increase students' analogical ability by fostering the real-world application of skills learned in class.
- Prepare students for college entrance/placement exams (ACT, SAT, etc.)
- Groom students for the rigor of college mathematics courses

COURSE TITLE: Trig/Analytical Geometry

COURSE #: 543

COURSE LENGTH: Year-Long (1 credit)

GRADE LEVEL: 12

DESCRIPTION: Introduction to the trig functions, solving triangles, trig identities, and trig equations. Also introduces vectors, vector equations, straight lines and conic sections. Graphing calculator recommended (TI-83): scientific calculator required.

COURSE TITLE: AP Calculus AB

COURSE #: 544

COURSE LENGTH: Year-Long (1 credit)

GRADE LEVEL: 11, 12

PREREQUISITE: Hon. Algebra II and/or Hon. Pre-Calculus

DESCRIPTION: AP Calculus AB is roughly equivalent to a first semester college calculus course devoted to topics in differential and integral calculus. The AP course covers topics in these areas, including concepts and skills of limits, derivatives, definite integrals, and the Fundamental Theorem of Calculus. The course teaches students to approach calculus concepts and problems when they are represented graphically, numerically, analytically, and verbally, and to make connections among these representations. Students learn how to use technology to help solve problems, experiment, interpret results, and support conclusions.

Students who are enrolled in AP Calculus AB are expected to:

- Work with functions represented in multiple ways: graphical, numerical, analytical, or verbal. They should understand the connections among these representations.
- Understand the meaning of the derivative in terms of a rate of change and local linear approximation and use derivatives to solve problems.
- Understand the meaning of the definite integral as a limit of Riemann sums and as the net accumulation of change and use integrals to solve problems.
- Understand the relationship between the derivative and the definite integral as expressed in both parts of the Fundamental Theorem of Calculus.
- Communicate mathematics and explain solutions to problems verbally and in writing.
- Model a written DESCRIPTION of a physical situation with a function, a differential equation, or an integral.
- Use technology to solve problems, experiment, interpret results, and support conclusions.
- Determine the reasonableness of solutions, including sign, size, relative accuracy, and units of measurement.
- Develop an appreciation of calculus as a coherent body of knowledge and as a human accomplishment.

COURSE TITLE: Honors Pre-Calculus

COURSE #: 545

COURSE LENGTH: Year-Long (1 credit)

GRADE LEVEL: 11, 12

PREREQUISITE: Honors Algebra II/Trig (Algebra II/Trig with teacher recommendation)

DESCRIPTION: This course is designed to build the students' knowledge and understanding of the pre-calculus concepts needed for success in college-level math courses. Furthermore, this course encompasses all mathematics learned to date. Topics for this study will include (but will not be limited to) analytic geometry, functions, inverse functions, graphing functions, polynomial and rational functions, complex numbers, exponential and logarithmic functions/equations/models, parametric equations, polar coordinates, trigonometric concepts/graphs, systems of equations/inequalities, matrices and matrix operations, determinants, sums/sequences, probability, mathematical induction, and limits.

Rather than teaching the material in the traditional manner, Hon. Pre-Calculus is taught in compact and, hopefully, non-intimidating increments. The different pre-calculus concepts will be spread throughout the year and will build in complexity. By the end of the school year, the students should have a deep and meaningful understanding and mathematical fluency. All assignments and assessments will include material from the most recent lessons as well as material from earlier in the year, ensuring student retention and connection-building between the topics.

- Enhance problem-solving skills through the study of various topics in mathematics
- Develop critical thinking skills required for solving complex problems
- Increase students' analogical ability by fostering the real-world application of skills learned in class
- Prepare students for college entrance/placement exams (ACT, SAT, etc.)
- Groom students for the rigor of college mathematics courses

#### COURSE TITLE: CALCULUS COURSE #: 546 COURSE LENGTH: Year-Long (1 Credit) PREREQUISITE: Pre-Calculus DESCRIPTION: Calculus is a way to analyze and perceive our physical world. It deals with motion and change, using equations, formulae and graphs to simplify and solve problems. The course has 3 parts:

- Functions
- Differential Calculus
- Integral Calculus.

COURSE TITLE: Algebra 2 COURSE #: 551 COURSE LENGTH: Year-Long (1 credit) GRADE LEVEL: 11 PPEPEOLUSITE: Students must have a th

PREREQUISITE: Students must have a thorough understanding of Algebra I, with a working knowledge of basic Geometric principles. There will also be times where some skills in problem solving will be needed.

DESCRIPTION: This course is designed to extend the student's knowledge of Algebra, Geometry, and Problem Solving. A junior level class, Algebra II completes the student's foundation of high school math and prepares the student for Trigonometry, Pre-Calculus, and/or other entry-level college math courses. Throughout the year we will discuss axioms, solving equations, functions, inequalities, systems of equations, exponents, rational/irrational numbers, real/complex numbers, quadratic equations, analytic geometry, conic sections, and logarithms.

The course is designed to:

- Enhance problem-solving skills through the study of various topics in mathematics
- Develop critical thinking skills required for solving complex problems
- Increase students' analogical ability by fostering the real-world application of skills learned in class
- Prepare students for college entrance/placement exams (ACT, SAT, etc.)
- Groom students for the rigor of college mathematics courses

COURSE TITLE: AP Statistics COURSE #: 563

COURSE LENGTH: Year-Long (1 credit)

GRADE LEVEL: 11, 12

PREREQUISITE: Honors Algebra II/Trig (or teacher recommendation) \*\*\*

DESCRIPTION: Curriculum for this course follows the AP Statistics curriculum set by the College Board and is designed to prepare students for the AP Statistics exam in May. The purpose of the AP course in statistics is to introduce students to the major concepts and tools for collecting, analyzing, and drawing conclusions from data. This course draws connections between all aspects of the statistical process, including design, analysis, and conclusions. Additionally, using the vocabulary of statistics this course will teach students how to communicate statistical methods, results and interpretations. Students will learn how to use graphing calculators and read computer output in an effort to enhance the development of statistical understanding.

Performance Standards - During the course, students will be exposed to four broad conceptual themes and will be expected to demonstrate proficiency in:

- Exploring Data: Describing patters and departures from patterns
- Sampling and Experimentation: Planning and conducting a study
- Anticipating Patterns: Exploring random phenomena using probability and simulation
- Statistical Inference: Estimating population parameters and testing hypotheses

The AP Statistics course is designed to:

- Force students to think logically and critically when solving problems and analyzing graphs, charts, and data sets
- Teach students how to collect, organize, represent and analyze data in order to recognize and describe relationships
- Demonstrate several approaches to basic problem solving and implement those strategies
- Help the student understand and appreciate the significance of the interconnection between areas of mathematics and their applicability to the real world
- Explain the usefulness and significance of statistics in modern life

COURSE TITLE: AP Calculus BC

COURSE #: 555

COURSE LENGTH: Year-Long (1 credit)

GRADE LEVEL: 12

PREREQUISITE: AP Calculus AB (or teacher recommendation)

DESCRIPTION: AP Calculus BC is roughly equivalent to both first and second semester college calculus courses and extends the content learned in AP Calculus AB to different types of equations and introduces the topic of sequences and series. The AP course covers topics in differential and integral calculus, including concepts and skills of limits, derivatives, definite integrals, the Fundamental Theorem of Calculus, and series. The course teaches students to approach calculus concepts and problems when they are represented graphically, numerically, analytically, and verbally, and to make connections among these representations. Students learn how to use technology to help solve problems, experiment, interpret results, and support conclusions.

Students who are enrolled in AP Calculus BC are expected to:

- Work with functions represented in multiple ways: graphical, numerical, analytical, or verbal. They should understand the connections among these representations.
- Understand the meaning of the derivative in terms of a rate of change and local linear approximation and use derivatives to solve problems.
- Understand the meaning of the definite integral as a limit of Riemann sums and as the net accumulation of change and use integrals to solve problems.
- Understand the relationship between the derivative and the definite integral as expressed in both parts of the Fundamental Theorem of Calculus.
- Communicate mathematics and explain solutions to problems verbally and in writing.
- Model a written DESCRIPTION of a physical situation with a function, a differential equation, or an integral.
- Use technology to solve problems, experiment, interpret results, and support conclusions.
- Determine the reasonableness of solutions, including sign, size, relative accuracy, and units of measurement.

COURSE TITLE: Calculus III/Differential Equations COURSE #: 565 COURSE LENGTH: Year-Long (1 credit) GRADE LEVEL: 12 PREREQUISITE: AP Calculus BC (or teacher approval) DESCRIPTION: Multidimensional limits, partial derivatives, multiple integration, Lagrange

Multipliers, vector functions, multiple integration in Cartesian, Cylindrical, and Spherical coordinates, Green's Theorem, Stokes' Theorem, and the Divergence Theorem are covered.

## RELIGION

The mission of the Religion and Ethics Department is to provide a solid grounding in faith formation for all our students, with an emphasis on Catholic doctrine and practice for Catholic students. We are committed to taking a leading role in encouraging students and faculty to follow Jesus' biblical injunction to love one another, through both the curriculum and the service program. Everything we do is guided by the example and charisma of St. John Baptist de La Salle. The Department uses the Five Core Principles of a Lasallian School as guideposts and touchstones for curriculum and planning, as well as for daily interaction with our students. Our aim is to help cultivate faith-filled adults who are dedicated to lifelong service and are committed to seeking a just world.

COURSE TITLE: Religion I: Hebrew Scripture

COURSE #: 711

COURSE LENGTH: Year-Long (1 credit)

**GRADE LEVEL: 9** 

PREREQUISITE: None

DESCRIPTION: Hebrew Scriptures studies the Catholic Old Testament in light of the Catholic Church's teaching on revelation. Students will approach the Bible using a contextualist approach and scholarly methods. Old Testament Scriptures will be considered in light of their ultimate fulfillment in the Person and Work of Jesus Christ and New Testament teaching. Biblical Teaching will be harmonized with the Catechism of the Catholic Church. Students will read a great deal of the Pentateuch, a selection of the Prophets and Wisdom literature, and several of the Historical books. The course involves nightly reading assignments, daily reading quizzes, and regular writing assignments. Students will improve their reading skills, writing ability, and understanding of biblical narratives, and hopefully grow in holiness

COURSE TITLE: Ethics I: Hebrew Scripture COURSE #: 712 COURSE LENGTH: Year-Long (1 credit) GRADE LEVEL: 9 PREREQUISITE: None

DESCRIPTION: This course primarily explores Hebrew Scriptures, with the aim that students will gain an understanding of its content, historical background, and contemporary methods for studying and interpreting it. Other topics will also be covered, such as adolescence, the life of John Baptist De La Salle, and a summary of some issues and perspectives concerning faith in today's world. It is hoped that, after taking the course, students will have the foundations laid for living as mature, responsible persons of faith in a twenty-first century world and will be inspired in the continuing search for truth and meaning in their own lives.

COURSE TITLE: Religion II: Christian Scriptures

COURSE #: 721

COURSE LENGTH: Year-Long (1 credit)

GRADE LEVEL: 10

PREREQUISITE: None

DESCRIPTION: This course will reinforce basic knowledge of the New Testament: the central events, places, and themes of the ministries of Jesus and Paul, the historical framework of the 1st Century, and the Pauline and General Epistles that close out the New Testament. The historical, cultural, and geographical framework for Biblical events will be considered, as well as major unifying concepts of redemptive history (e.g. covenant, prophecies, types, the Kingdom of God, the Messiah), relating important backgrounds of the New Testament to the Old Testament.

Additionally, this course focuses on the principles and methods of Biblical interpretation found in the Catechism of the Catholic Church (CH. 2 - Article 3, 101-141), leading to a better understanding of how to interpret God's word.

Proper interpretation will connect New Testament writings, sacraments, and symbols of the Catholic Church to issues of emotional development, friendship, family, society, and the world from the context of the student's life.

COURSE TITLE: Ethics II: Christian Scriptures

COURSE #: 723

COURSE LENGTH: Year-Long (1 credit)

GRADE LEVEL: 10

PREREQUISITE: None

DESCRIPTION: Based on Christian Scriptures, Ethics II focuses on the details of Jesus' life, and understanding the relationship of Jesus with God. Emphasis is placed upon his nature and person. In addition, the course will explore the epistles of the apostle Paul and his role in the formation of the early Christian church. Particular emphasis is placed on the mission of the church and its relationship to the historical Christ. Additionally, an appreciation and embrace of the authenticity of one's own faith as well as an acceptance of other faith traditions will hopefully be achieved.

COURSE TITLE: Religion III: Church History/Comparative Religions

COURSE #: 731

COURSE LENGTH: Year-Long (1 credit)

GRADE LEVEL: 11

PREREQUISITE: None

DESCRIPTION: This course begins with a semester study of the history and development of the Church, from its founding in Jerusalem to its existence today. Special emphasis is placed on a Roman Catholic perspective. The second semester is devoted to a study of the history of other major world religions. The student will gain a better understanding of other faiths and thereby also a better understanding and appreciation of his own faith.

COURSE TITLE: Ethics III: Church History/Comparative Religions COURSE #: 732 COURSE LENGTH: Year-Long (1 credit) GRADE LEVEL: 11 PREREQUISITE: None DESCRIPTION: This course begins with a look at the evolution of the concept of religion, and students develop a working definition of "religion." Also, students are provided a framework that facilitates an academic study of several of the world's major religions, and learn methods and vocabulary that enable them to compare and contrast these religions. The focus of the first semester is the history of Christianity from its earliest days through the Reformation. Beginning with a review of the Acts of the Apostles, the course charts the growth of the Church and the development of its structure and doctrine, with special attention to key individuals and events. Students also examine historical context through the centuries, culminating in an examination of events leading to the Protestant Reformation and its consequences. Finally, students survey the main branches of Christianity today.

The second semester involves a study of other major world religions, including Judaism, Islam, Hinduism, and Buddhism. Since history and culture play a significant role in the birth and development of a religion, students will look at these elements in the regions in which these religions developed.

For most students, this course will be their first contact with religions that may be quite different from their own. Therefore, they must understand the importance of empathy, recognizing the value that these traditions have for people around the world. Ultimately, a study of the world's religions can help the students to appreciate their own religion even more, ending the year with a deeper understanding of their own faith.

COURSE TITLE: Religion IV: Justice and Morality

COURSE #: 741

COURSE LENGTH: Year-Long (1 credit)

GRADE LEVEL: 12

PREREQUISITE: None

DESCRIPTION: The goal of this class is to give each student an array of spiritual and intellectual skills that will prepare him for the challenges of college. Since every student will be confronted with varied and often conflicting worldviews, objections to orthodox Christianity, and opposing ideas of what will make us happy it is essential that students grasp the fundamentals of Catholic Christianity and the perennial debates of philosophy. The class seeks to first lay the groundwork of natural reason (logic and philosophy) to be able to understand and be critical of later concepts. From this groundwork, the class moves into the foundational themes of Catholic Social Thought. These ideas are applied to further topics of poverty, just war, life issues (abortion euthanasia, etc.), and consumerism. The student should leave the class with a full understanding of the inherent dignity of the human person as we are made in the image of God. Secondarily, the class also seeks to lay some spiritual foundation for the discernment of vocation and ministry. Various strategies in discernment will be illustrated in class throughout the year. It is hoped that the prayers and ideas learned here will be there for the student to draw on after his time at CBHS.

COURSE TITLE: Ethics IV: Justice and Morality COURSE #: 742 COURSE LENGTH: Year-Long (1 credit) GRADE LEVEL: 12 PREREQUISITE: None DESCRIPTION: This class will provide an overview of the tenets of Christian Social Thought and the major Christian vocations. There will be a focus on the roots of Social Ethical Thought

and the major Christian vocations. There will be a focus on the roots of Social Ethical Thought (SET) through examining the life of Christ and His teachings. Students also will analyze the major concerns and problems confronting the modern world and American society specifically. Also, students will examine the five major vocations along with how they are lived out (often with great resistance) in our modern society. Course Objectives:

- Understand a Christian position on moral issues in contemporary society.
- Effectively apply the 9 themes of Christian Social Ethical Thought to contemporary culture.
- Critically analyze modern culture and media from a foundation of Christian values.
- Use creativity, Christian values, and the nine themes of SET to solve real-world problems.
- Articulate and present an analysis, judgment, and possible solutions to major problems confronting society/world.
- Understand the different types of vocations and the importance of each to contemporary culture.

# SCIENCE

Science is the study of the observable and the measurable. Science Department courses are aligned in a sequential fashion to provide students a logical progression of concepts throughout their 4 year high school careers; each concept explored in each course builds in a logical progression from concept to concept and from course to course. This is how all knowledge in science has been amassed. So when we teach science today, our goal is to provide our students with that same model of discovery and logical thinking that has led us to the sum total of knowledge that we have today.

Science, in general, does not follow a central theme. The study of biology, for instance, requires an overlap into chemistry, physics, environmental science, etc. So while the individual courses will focus on a particular discipline, there will be overlap into other science areas as well as overlap into mathematics. Math is the language of science, so we have tied each of our science courses to a specific level of math. Biology is tied to geometry, for example.

This accomplishes two things for the student. First, each science course uses specific skills from mathematics. The students need those same skills for the corresponding math level they are taking. Secondly, the science courses will move at a very similar pace to the level of the math course that the student is in. An honors level science class will move at pretty much the same pace as an honors level math class. A standard level science class will move at pretty much the same pace as a standard level math class.

No student can experience all of the discoveries that have been made in science to date, but as far as possible, we should like our students to learn as much science as possible in the laboratory. The ability of students to understand the discoveries of science (and perhaps to make additional discoveries of their own someday) rests on their having real experiences themselves. Science courses here at CBHS are based on the belief that our students profit most by making their own observations and drawing their own conclusions. Discussions stem from these observations and conclusions. Moving beyond the approach of memorizing a list of facts or laws is necessary for a real understanding of science. Tests and quizzes are structured to focus on data collection and data analysis. Students sometimes struggle with this approach early on in their high school careers. But our goal is to teach our students how to think critically and logically and apply the knowledge they acquire.

#### BIOLOGY

COURSE TITLE: Honors Biology COURSE #: 815 COURSE LENGTH: Year-Long (1 credit) GRADE LEVEL: 9

PREREQUISITE: A's in Middle School science and math courses, Score at the 90th percentile or above on the CBHS placement test. This course is taken concurrently with Honors Geometry

DESCRIPTION: This course provides students with a challenging honors-level biology curriculum, focusing on the chemistry of living things: the cell, genetics, evolution, the structure and function of living things, and ecology. The program consists of advanced online lessons including extensive animations, an associated reference book, collaborative explorations, and hands-on laboratory experiments. Honors activities include debates, research papers, extended collaborative laboratories, and virtual laboratories, web quests and other projects. The course introduces students to in-depth topics of biology with a special emphasis on applying the knowledge to human life.

COURSE TITLE: Honors Biology

COURSE #: 821

COURSE LENGTH: Year-Long (1 credit)

GRADE LEVEL: 10

PREREQUISITE: A's or B's in Honors Physics, Honors Algebra I. This course is taken concurrently with Honors Geometry

DESCRIPTION: This course offers a challenging honors-level biology curriculum. The key focus is on the chemistry of living things: the cell, genetics, evolution, photosynthesis and cellular respiration, and ecology. There will be advanced online lessons including extensive animations, on-line reference material, and collaborative projects and lab exercises. Class activities will research papers, hands-on laboratories, virtual laboratories, web quests and other projects. The course introduces students to in-depth topics of biology with a special emphasis on applying the knowledge to human life.

COURSE TITLE: Biology COURSE #: 822 COURSE LENGTH: Year-Long (1 credit) GRADE LEVEL: 10

PREREQUISITE: Physics, Algebra I. This course is taken concurrently with Geometry

DESCRIPTION: Biology is fascinating, constantly changing, and contains secrets for improving our world. 822 biology at CBHS provides students with the conceptual framework, factual knowledge, and analytical skills necessary to deal critically with the rapidly changing science of biology. Students will develop an understanding and appreciation of the unifying themes that integrate the major topics of biology. In this comprehensive course, students investigate the chemistry of living things: the structure and function of the cell, genetics, evolution, biological diversity and ecology. The program offers in-depth online lessons with extensive animations, an associated on-line reference book, collaborative projects, virtual laboratories and hands-on laboratory experiments. We want to develop each student's understanding of the cell structures that make up our tissues and organs and the relationship between human systems and other living organisms. COURSE TITLE: AP Biology COURSE #: 848 COURSE LENGTH: Year-Long (1 credit) GRADE LEVEL: 11 or 12

PREREQUISITE: A's or B's in Honors Biology, Honors Chemistry, and Honors Algebra II/Trig This course is typically taken concurrently with Calculus or higher level math courses. Teacher Approval after interview process

DESCRIPTION: The AP Biology course is equal to the 1st year college course for students majoring in Biology. This course is an in-depth study of biology, with very strong roots in biochemistry. How well the student has done in chemistry is a good indicator of how well he can handle the AP Biology course. The course involves quite extensive lab opportunities and the lab component is a very large part of the assessment for this course. Many students struggle with this approach because they cannot merely memorize answers. In addition to the normal class meetings throughout the week, this course also meets for extra time - typically beginning at 7:30 am a couple of days each week and then we also meet several Saturday mornings throughout the school year. The curriculum is designed by the College Board and has a specific number of hours of class sessions that are required. Upon successful completion of this course, students can earn college credit based on results on the national exam at the end of the course.

CHEMISTRY

COURSE TITLE: Honors Chemistry

COURSE #: 826

COURSE LENGTH: Year-Long (1 credit)

GRADE LEVEL: 10

of solutions.

PREREQUISITE: A's or B's in Honors Biology and Honors Geometry. This course is taken concurrently with Honors Algebra II/Trig.

DESCRIPTION: Advanced Sophomore level course. This course studies the physical properties and structure of matter, the kinetic-molecular theory, the phases of matter and related properties, effects of energy changes on matter, and the properties of solutions. Students will study and develop projects on the physical properties and structure of matter, advanced atomic theory; chemical bonding and nomenclature, chemical reactions; stoichiometry; the kinetic-molecular theory and behavior of gases, effects of energy changes on matter, properties of solutions and acid/base reactions. Frequent laboratory exercises and webbased assignments are an integral part of this course. Formal lab reports will be done at least once per semester.

COURSE TITLE: Honors Chemistry COURSE #: 831 COURSE LENGTH: Year-Long (1 credit) GRADE LEVEL: 11 PREREQUISITE: PREREQUISITE: A's or B's in Honors Biology and Honors Geometry This course is taken concurrently with Honors Algebra II/Trig. DESCRIPTION: Advanced Junior level course that focuses on the physical properties and structure of matter. Students will investigate the kinetic-molecular theory, the phases of matter and its related properties, the effects of energy changes on matter, and the properties The course will be centered around laboratory work and the students will develop projects and work collaboratively on activities that explore the physical properties and structure of matter, advanced atomic theory; chemical bonding and nomenclature, chemical reactions; stoichiometry; the kinetic-molecular theory and behavior of gases. Frequent laboratory exercises and web-based assignments are an integral part of this course. Formal lab reports will be done at least once per semester.

COURSE TITLE: Chemistry COURSE #: 832 COURSE LENGTH: Year-Long (1 credit) GRADE LEVEL: 11

PREREQUISITE: Biology, Geometry. This course is taken concurrently with Algebra II/Trig DESCRIPTION: Junior level class on the nature of chemistry, properties of matter, experimental measurements, chemical nomenclature, atomic theory, electron configuration, chemical bonding, stoichiometry and organic chemistry. Formal lab reports will be done at least once per semester. Students will develop projects to support deep understanding of the world of chemistry. Research reports as well as collaborative projects will augment the relationships explored in the laboratory component of this course.

COURSE TITLE: Chemistry COURSE #: 839 COURSE LENGTH: Year-Long (1 credit) GRADE LEVEL: 11

PREREQUISITE: Biology, Geometry. This course is taken concurrently with Algebra II.

DESCRIPTION: This course studies the nature of chemistry, properties of matter, experimental measurements, chemical nomenclature, atomic theory, electron configuration, chemical bonding, stoichiometry and organic chemistry. This course is for Juniors taking Algebra II and the pace will follow pretty steadily with the pace for that level math class. There will be lab activities as well as several project based activities that work to develop the student's experience and understanding of chemical reactions and the properties of matter.

COURSE TITLE: AP Chemistry

COURSE #: 841

COURSE LENGTH: Year-Long (1 credit)

GRADE LEVEL: 11, 12

PREREQUISITE: A's or B's in Honors Chemistry, A's or B's in Honors Algebra II/Trig. This course is taken concurrently with Calculus or higher level math . Teacher Approval with an interview process.

DESCRIPTION: The AP Chemistry course is a rigorous advanced chemistry course equal to the introductory college level chemistry course taken by science majors. Upon successful completion of this chemistry course and achievement of a satisfactory score on the AP Chemistry Examination, students may have the opportunity to receive general chemistry credits or place out of general chemistry classes and move into more advanced science courses during their first years in college. Topics covered will include chemical reactions, solutions, properties of gases, thermochemistry, chemical bonding, acids and bases, chemical kinetics, equilibria, spontaneity, free energy, entropy, and electrochemistry.

#### PHYSICS

COURSE TITLE: Physics 1 COURSE #: 817 COURSE LENGTH: Year-Long (1 credit) GRADE LEVEL: 9

PREREQUISITE: None. Taken concurrently with Honors Algebra I

DESCRIPTION: Physics 1 is a freshman level introductory course aimed to give students the foundation block upon which the other sciences are built. The course is algebra based and covers the following topics: 1-D Kinematics, Vectors-Motion and Forces in 2-D, Newton's Three Laws of Motion, Momentum, Work, Energy, and Power, Atomic Structure and Thermal Physics, Static Electricity, Current Electricity, and Electromagnetism. Our goal is to maximize the use of the students' personal experiences in the everyday world so that they learn to see Physics as part of everything that happens around them. In this way, the students find that they can comprehend "non-easy" material.

COURSE TITLE: AP Physics

COURSE #: 841

COURSE LENGTH: Year-Long (1 Credit)

PREREQUISITE: Honors Physics and teacher approval

DESCRIPTION: The AP Physics course is a rigorous advanced physics course equal to the introductory college level physics course taken by science majors. It is designed to develop the ability to reason about physical phenomena using important science process skills such as explaining causal relationships, applying and justifying the use of mathematical routines, designing experiments, analyzing data and making connections across multiple topics within the course.

COURSE TITLE: Honors Physics

COURSE #: 842

COURSE LENGTH: Year-Long (1 credit)

GRADE LEVEL: 11 or 12

PREREQUISITE: Honors Chemistry and Honors Algebra II/Trig. Taken concurrently with Honors Pre-Calculus or higher level math course

DESCRIPTION: An in-depth course in basic mechanics including kinematics, Newton's laws, vectors and projectiles, rotational motion and gravitation, momentum, work, energy and power, the conservation of momentum, the conservation of energy and in electricity and magnetism including Coulomb's law and electrostatics, Ohm's law and DC circuits, magnetism and electromagnetic induction. The course includes outside reading assignments and the presentation to the science department on and explanation of a recently published scientific paper from a peer reviewed journal. Familiarity with Calculus is strongly recommended. PREREQUISITEs include a strong and thorough background in geometry, algebra, and trigonometry.

COURSE TITLE: Physics COURSE #: 843 COURSE LENGTH: Year-Long (1 credit) GRADE LEVEL: 11 or 12 PREREQUISITE: Chemistry and Algebra II/Trig. Taken concurrently with Pre-Calculus or higher level math course.

DESCRIPTION: This is a course in basic mechanics including kinematics, Newton's laws, vectors and projectiles, rotational motion and gravitation, momentum, work energy and power and electricity and magnetism including Coulomb's law and electrostatics, Ohm's law and basic DC circuits, basic magnetism and electromagnetic induction. Strong math skills are required.

COURSE TITLE: Physics of Mechanics COURSE #: 849 COURSE LENGTH: Year-Long (1 credit) GRADE LEVEL: 11 or 12

PREREQUISITE: Physics I (9th grade) (No math prerequisite - course is Algebra based) DESCRIPTION: A course in basic mechanics including kinematics, Newton's laws, vectors and projectiles, rotational motion and gravitation, momentum, work energy and power. This course will offer many demonstrations of natural laws and give the students an opportunity for some hands-on investigations. Familiarity with algebra and basic trigonometry are strongly suggested PREREQUISITEs, but the course will provide reinforcement of math skills and improvement in those skills through practice.

ENGINEERING

DESCRIPTION of Engineering Pathway (Project Lead the Way)

In PLTW Engineering, students engage in open-ended problem solving, learn and apply the engineering design process, and use the same industry-leading technology and software as are used in the world's top companies. Students investigate topics such as aerodynamics and astronautics, biological engineering and sustainability, and digital electronics and circuit design, which gives them an opportunity to learn about different engineering disciplines before beginning post-secondary education or careers.

PLTW Engineering is more than just another high school engineering program. It is about applying engineering, science, math, and technology to solve complex, open-ended problems in a real-world context. Students focus on the process of defining and solving a problem, not on getting the "right" answer. They learn how to apply STEM knowledge, skills, and habits of mind to make the world a better place through innovation.

COURSE TITLE: Introduction to Engineering Design (IED) - (Project Lead the Way)

COURSE #: 860

COURSE LENGTH: Year-Long (1 credit) 1st year elective in the Engineering Pathway - (One course offered each year of 4 year high school career to complete Pathway)

GRADE LEVEL: 9

PREREQUISITE: None

DESCRIPTION: Students in Introduction to Engineering Design (IED) apply engineering, science, math, and technology to solve complex, open-ended problems in a real-world context. Students learn how to apply STEM knowledge, skills, and habits of mind to make the world a better place through innovation. The IED course is designed to promote the development and understanding of the principles engineers use daily in the workplace while encouraging students to think critically and find their own answers. The student will have numerous opportunities to improve reading, team work and math skills, all of which are necessary for success in most endeavors in today's world. A National Test is administered at the end of the school year.

(There is also a \$75.00 course fee for this course.)

COURSE TITLE: Principles Of Engineering (POE) - (Project Lead the Way) COURSE #: 861

COURSE LENGTH: Year-Long (1 credit) 2nd year elective in the Engineering Pathway GRADE LEVEL: 10

PREREQUISITE: Must have passed Introduction to Engineering Design.

DESCRIPTION: This course exposes students to major concepts they'll encounter in a postsecondary engineering course of study. Through problems that engage and challenge, students explore a broad range of engineering topics, including mechanisms, the strength of structures and materials, and automation. Students develop skills in problem solving, research, and design while learning strategies for design process documentation, collaboration, and presentation. A National Test is administered at the end of the school year.

(There is also a \$75.00 course fee for this course.)

COURSE TITLE: Aerospace Engineering

COURSE #: 862

COURSE LENGTH: Year-Long (1 credit) 3rd year elective in Engineering Pathway GRADE LEVEL: 11

PREREQUISITE: Must have passed Principles of Engineering.

DESCRIPTION: This course propels students' learning in the fundamentals of atmospheric and space flight. As they explore the physics of flight, students bring the concepts to life by designing an airfoil, propulsion system, and rockets. They learn basic orbital mechanics using industry-standard software. They also explore robot systems through projects such as remotely operated vehicles. (There is also a \$75.00 course fee for this course.)

COURSE TITLE: Civil Engineering

COURSE #: 863

COURSE LENGTH: Year-Long (1 credit) 3rd year elective in Engineering Pathway

GRADE LEVEL: 11

PREREQUISITE: Must have passed Principles of Engineering.

DESCRIPTION: Students learn important aspects of building and site design and development. They apply math, science, and standard engineering practices to design both residential and commercial projects and document their work using 3D design software.

(There is also a \$75.00 course fee for this course.)

COURSE TITLE: Capstone Course - Engineering Design and Development

COURSE #: 864

COURSE LENGTH: Year-Long (1 credit) 4th year elective in Engineering Pathway GRADE LEVEL: 12

PREREQUISITE: Teacher approval

DESCRIPTION: The knowledge and skills students acquire throughout PLTW Engineering come together in EDD as they identify an issue and then research, design, and test a solution, ultimately presenting their solution to a panel of engineers. Students apply the professional skills they have developed to document a design process to standards, completing EDD ready to take on any post-secondary program or career.

(There is also a \$75.00 course fee for this course.)

COURSE TITLE: Digital Electronic Engineering

COURSE #: 865

COUSRE LENGTH: Year-Long (1 Credit)

PREREQUISITE: Principles of Engineering

DESCRIPTION: This course provides a foundation for students who are interested in electrical engineering, electronics, or circuit design. Students study topics such as combinational and sequential logic and are exposed to circuit design tools used in industry.

# **BIOMEDICAL SCIENCE**

DESCRIPTION - The Biomedical Science Pathway

Project Lead the Way

The rigorous and relevant four-course PLTW Biomedical Science sequence allows students to investigate the roles of biomedical professionals as they study the concepts of human medicine, physiology, genetics, microbiology, and public health. Students engage in activities like investigating a crime scene to learn content in the context of real-world cases. They examine the structures and interactions of human body systems and explore the prevention, diagnosis, and treatment of disease, all while working collaboratively to understand and design solutions to the most pressing health challenges of today and the future.

Each course in the Biomedical Science sequence builds on the skills and knowledge students gain in the preceding courses. Schools offer the three PLTW Biomedical Science foundation courses within a period of three academic years from the start of implementation and may also offer the capstone course.

COURSE TITLE: Principles of the Biomedical Sciences - (Project Lead the Way) COURSE #: 850

COURSE LENGTH: Year-Long (1 credit) 1st year elective in the Biomedical Pathway

- (One course offered each year of 4 year high school career to complete Pathway)

GRADE LEVEL: 9

PREREQUISITE: None

DESCRIPTION: In the introductory course of the PLTW Biomedical Science program, students explore concepts of biology and medicine to determine factors that led to the death of a fictional person. While investigating the case, students examine autopsy reports, investigate medical history, and explore medical treatments that might have prolonged the person's life. The activities and projects introduce students to human physiology, basic biology, medicine, and research processes while allowing them to design their own experiments to solve problems. A National Test is administered at the end of the school year.

(There is also a \$75.00 course fee for this course.)

COURSE TITLE: Human Body Systems - (Project Lead the Way)

COURSE #: 851

COURSE LENGTH: Year-Long (1 credit) 2nd year elective in the Biomedical Pathway GRADE LEVEL: 10

PREREQUISITE: Principles of the Biomedical Sciences

DESCRIPTION: Human Body Systems is a course designed to engage students in the study of basic human physiology and the care and maintenance required to support the complex systems. Using a focus on human health, students will employ a variety of monitors to examine body systems (respiratory, circulatory, and nervous) at rest and under stress, and observe the interactions between the various body systems. Students will use appropriate software to design and build systems to monitor body functions. Schools offering this course must agree to be part of the Project Lead the Way network and follow all training and data collection requirements. A National Test is administered at the end of the school year.

(There is also a \$75.00 course fee for this course.)

COURSE TITLE: Medical Interventions - (Project Lead the Way)

COURSE #: 852

COURSE LENGTH: Year-Long (1 credit) 3rd year elective in the Biomedical Pathway GRADE LEVEL: 11

PREREQUISITE: Human Body Systems

DESCRIPTION: Students follow the life of a fictitious family as they investigate how to prevent, diagnose, and treat disease. Students explore how to detect and fight infection; screen and evaluate the code in human DNA; evaluate cancer treatment options; and prevail when the organs of the body begin to fail. Through real-world cases, students are exposed to a range of interventions related to immunology, surgery, genetics, pharmacology, medical devices, and diagnostics. A National Test is administered at the end of the school year. (There is also a \$75.00 course fee for this course.)

COURSE TITLE: Biomedical Innovation

COURSE #: 853

COURSE LENGTH: Year-Long (1 credit) 4th year elective in the Biomedical Pathway -

Capstone Course GRADE LEVEL: 12

PREREOUISITE: Medical Interventions

DESCRIPTION: In the final course of the PLTW Biomedical Science sequence, students build on the knowledge and skills gained from previous courses to design innovative solutions for the most pressing health challenges of the 21st century. Students address topics ranging from public health and biomedical engineering to clinical medicine and physiology. They have the opportunity to work on an independent design project with a mentor or advisor from a university, medical facility, or research institution. (There is also a \$75.00 course fee for this course.)

BIOMEDICAL SCIENCE

COURSE TITLE: Computer Science A

COURSE #: 865

COURSE LENGTH: Year-Long (1 Credit)

PREREQUISITE: Computer Science Principles or Principles of Engineering with teacher approval.

DESCRIPTION: Computer Science A focuses on further developing computational-thinking skills through the medium of Android<sup>™</sup> App development for mobile platforms. This course aligns with the AP CS A course.

COURSE TITLE: Computer Science Essentials

COURSE #: 870

COURSE LENGTH: Semester (.5 credit)

GRADE LEVEL: 9

PREREQUISITE: None.

DESCRIPTION: Introduction to Computer Science is a one semester, freshman course and is the first course in the Computer Science STEMM program. Introduction to Computer Science is designed to be a first computer Science course for students who have not programmed. The students will explore the impact of computing in society and build skills in digital citizenship and cybersecurity. Beyond learning the fundamentals of programming by using the Python programming language and creating apps for mobile devices using MIT App Inventor, students will build computational thinking skills by applying computer science to collaboration tools, modeling and simulation, and data analysis. COURSE TITLE: Computer Science Principles COURSE #: 872 COURSE LENGTH: Year-Long (1 credit) GRADE LEVEL: 10

PREREQUISITE: Must have passed Computer Science Essentials

DESCRIPTION: Using Python® as a primary tool, students explore and become inspired by career paths that utilize computing, discover tools that foster creativity and collaboration, and use what they've learned to tackle challenges like app development and simulation.

### SOCIAL STUDIES

The basic mission of social studies is to meet the demand for citizens who can adapt the enduring traditions and values of the United States and its democracy to meet changing circumstances. In social studies courses at CBHS, students develop a core of basic knowledge and ways of thinking drawn from many academic disciplines, learn how to analyze their own and others opinions' on important issues, and become motivated to participate in civic and community life as active, informed citizens. While active civic participation includes becoming informed about issues and voting in elections, it can take many other forms relating to the United States government, its history, its people, and just as importantly, its neighbors around the world.

The National Council for the Social Studies (NCSS), the field's primary professional organization, has adopted this formal definition:

Social studies is the integrated study of the social sciences and humanities to promote civic competence. Within the school program, social studies provides coordinated, systematic study drawing upon such disciplines as anthropology, archaeology, economics, geography, history, law, philosophy, political science, psychology, religion, and sociology, as well as appropriate content from the humanities, mathematics, and natural sciences. The primary purpose of social studies is to help young people develop the ability to make informed and reasoned decisions for the public good as citizens of a culturally diverse, democratic society in an interdependent world."

At its core, social studies promotes knowledge of and involvement in civic affairs. And because civic issues – such as health care, crime, and foreign policy – are multidisciplinary in nature, understanding these issues requires a multidisciplinary education.

COURSE TITLE: World History

COURSE #: 916

COURSE LENGTH: Year-Long (1 credit)

GRADE LEVEL: 9

PREREQUISITE: Required for graduation

DESCRIPTION: World History is a survey of the major cultures and civilizations which have developed in Africa, Asia, Europe, and the Americas since the dawn of civilization through the 16th century. Students are presented with a series of lectures, audio-visual supplements, and readings to acquaint them with the significant people, events, and intellectual developments of history. Specifically, students will be expected to take notes, read relevant secondary and primary source material, and work cooperatively with other students in group projects. Students will be assessed in a variety of manners including but not limited to tests, quizzes, projects, and routine homework assignments.

Course Goals:

- To create a social studies curriculum that is vertically aligned from grades 9-12.
- Department Goal Two To provide opportunities for students to listen to/engage with outside groups pertaining to historical subjects inviting outside speakers to talk to classes about world religion, politics, service in the military, etc.

COURSE TITLE: Honors World History COURSE #: 914 COURSE LENGTH: Year-Long (1 credit) GRADE LEVEL: 9

PREREQUISITE: Top 25% on High School Placement Exam

DESCRIPTION: World History Honors is a survey of the major cultures and civilizations which have developed in Africa, Asia, Europe, and the Americas since the dawn of civilization through the 16th century. Students are presented with a series of lectures, audio-visual supplements, and readings to acquaint them with the significant people, events, and intellectual developments of history. Specifically, students will be expected to research, compare and analyze the major cultures with respect to social, political, and economic processes. In this honors level class students will be expected to conduct independent research, engage in discussion and present their findings in extended written assignments.

- To create a social studies curriculum that is vertically aligned from grades 9-12.
- To provide opportunities for students to listen to/engage with outside groups pertaining to historical subjects inviting outside speakers to talk to classes about world religion, politics, service in the military, etc.

COURSE TITLE: AP World History

COURSE #: 913

COURSE LENGTH: Year-Long (1 credit)

GRADE LEVEL: 9

PREREQUISITE: Top 10% on High School Placement Exam

DESCRIPTION: AP World History is a survey of the major cultures and civilizations which have developed in Africa, Asia, Europe, and the Americas since the dawn of civilization through to present-day. Students are presented with a series of lectures, audio-visual supplements, and readings to acquaint them with the significant people, events, and intellectual developments of history. Specifically, students will be expected to take notes, analyze relevant secondary and primary source material, and develop critical thinking skills through essays. Students will be assessed in a variety of manners including but not limited to tests, quizzes, and essays. (There is an AP Testing fee.)

Course Goals:

- Provide students with a breadth of knowledge of historical events throughout world history
- Teach students the relationship of cause-and-effect and the role it has played in historical events
- Analyze historical themes have changed over time
- Develop student's critical thinking skills through analysis of primary and secondary source documents
- Introduce how to construct a proper thesis statement and write a historical essay

COURSE TITLE: Modern European History

COURSE #: 990

COURSE LENGTH: Year-Long (1 credit)

**GRADE LEVEL: 10** 

PREREQUISITE: Required for graduation

DESCRIPTION: The objective of this class is to introduce the students to the study of European history from the Renaissance to the present day. The class will introduce different methods of learning and understanding history. Students will learn the patterns of history and how certain decisions made by leaders in the past are still affecting the world today. By the end of the course, students will demonstrate an understanding of the history, diversity, and commonality of the people of the nation and the world, the reality of human interdependence, the need for global cooperation, and a perspective that is multicultural.

Course Goals:

- Introduce students to a new standard of reading expectations
- Research using primary sources
- Learn to write an academic paper
- Develop interest among students for potential future in historical studies
- Understand currents events connectivity to historical events

COURSE TITLE: Honors Modern European History

COURSE #: 991

COURSE LENGTH: Year-Long (1 credit)

**GRADE LEVEL: 10** 

PREREQUISITE: Honors or standard World History teacher and English teacher recommendations

DESCRIPTION: The objective of this class is to introduce the students to the study of European history from the Renaissance to the present day. The class will introduce different methods of learning and understanding history. Students will learn the patterns of history and how certain decisions made by leaders in the past are still affecting the world today. By the end of the course, students will demonstrate an understanding of the history, diversity, and commonality of the people of the nation and the world, the reality of human interdependence, the need for global cooperation, and a perspective that is multicultural.

Course Goals:

- Introduce students to a new standard of reading expectations
- Research using primary sources
- Learn to write an academic paper
- Develop interest among students for potential future in historical studies
- Understand currents events connectivity to historical events

COURSE TITLE: AP Modern World History

COURSE #: 992

COURSE LENGTH: Year-Long (1 credit)

GRADE LEVEL: 10

PREREQUISITE: AP or Honors World History teacher and Honors English teacher recommendations

DESCRIPTION: The objective of this class is to introduce the students to the study of European history from the Renaissance to the present day. The class will explore the following historical themes: intellectual, cultural, political, diplomatic, social, and economic history. By the end of the course, students will demonstrate an understanding of the history, diversity, and commonality of the people of the nation and the world, the reality of human interdependence, the need for global cooperation, and a perspective that is multicultural.

(There is an AP Testing fee.)

Course Goals:

- Introduce students to a new standard of reading expectations
- Research using primary sources
- Learn to write an académic paper
- Develop interest among students for potential future in historical studies
- Understand currents events connectivity to historical events

COURSE TITLE: United States History

COURSE #: 932

COURSE LENGTH: Year-Long (1 credit)

GRADE LEVEL: 11

PREREQUISITE: required for graduation

DESCRIPTION: United States History is a year-long introduction to American history from colonial times to the present. Course content focuses on the major events and personalities that have created and shaped American political and cultural institutions. In addition, the course seeks to enhance students' responsibility for their studies while cultivating such essential skills as expository writing, note taking, primary document analysis, and class participation. Various student-driven projects and learning activities may be assigned at the discretion of each instructor. Course materials include reading assignments from a variety of online resources as well as digital documents provided by the instructor.

COURSE TITLE: Honors United States History

COURSE #: 933

COURSE LENGTH: Year-Long (1 credit)

**GRADE LEVEL: 11** 

PREREQUISITE: Honors World and/or Honors European History. They MUST have a recommendation from their history teacher the previous year. Highly recommended, that they have taken honors English in 9th & 10th grade.

DESCRIPTION: US History Honors course is designed to prepare you for success in a college level American history class. This class requires a more demanding level of work outside of class as compared to a standard US History class. We will cover in a survey fashion from 1607 to the present during the course of this class. This class will not only disseminate historical facts but expect you to analyze and synthesize historical thought on a high level.

Weekly historical readings from academic journals and texts will come from the professional field of academia. You will also be required to complete a historical book review quarterly. Quizzes will be weekly throughout the term. Tests will be given at the end of each unit. You will participate in various seminars, both silent and active, where you will discuss historical conflicts and notions in detail with your classmates.

COURSE TITLE: AP United States History

COURSE #: 931

COURSE LENGTH: Year-Long (1 credit)

GRADE LEVEL: 11

PREREQUISITE: AP Modern European History with Teacher recommendation, Honors English II with Teacher recommendation, and Reading scores on the High School Placement Test DESCRIPTION: This is a comprehensive course equivalent to a college survey in American history at a four-year American university. It is a two-semester sequence and it concludes with the students prepared to take the College Board Advanced Placement Examination, administered by Educational Testing Service in May. The course covers political, diplomatic, economic, social, cultural, military, and intellectual history of the United States from 1492-1990. Themes of great importance are ethnic diversity, gender, environmentalism, expansionism, religion, slavery, labor, and globalization and reform movements.

(There is a \$50 course fee and AP Testing fee.)

COURSE TITLE: Facing History and Ourselves (FHAO)

COURSE #: 973

COURSE LENGTH: Semester (.5 credit)

GRADE LEVEL: 11, 12

PREREQUISITE: World and European History

DESCRIPTION: The FHAO elective is a one semester course that uses an interdisciplinary approach to promote the knowledge, values, and skills needed to preserve and protect democracy. The course begins with the issues of identity, moves to a consideration of history and judgment using the Holocaust as a case study, and ends with examples of positive participation. Students will also examine issues of membership throughout US History and will confront the moral questions inherent in a study not only of racism, antisemitism, and violence but also of courage, caring, and compassion throughout the course.

By examining the events that led to the Holocaust, students will come to understand that few events in history are inevitable. They are asked to consider the choices made by individuals and groups as well as the consequences of these choices. The course helps students to make connections between the past and the present and encourages them to think of their responsibility to participate in our democracy in order to avoid the pitfalls of prejudice and discrimination.

COURSE TITLE: Civil Rights Movement COURSE #: 972 COURSE LENGTH: Semester (.5 credit) GRADE LEVEL: 11, 12 PREREQUISITE: None

DESCRIPTION: The Civil Rights Movement course covers aspects of the American Civil Rights Movement from the turn of the 20th century to the present. Over the course of the semester, students will analyze major figures, events, ideals, and organizations that have culminated in our nation's legislative and social evolution in the realm of civil rights.

Students will be required to reflect their personal and historical understanding of issues through various assignments and assessments. Participants in this course will also be expected to exhibit maturity, consistently participate in class discussions and respect the views and opinions of other members of the class.

COURSE TITLE: American Government COURSE #: 942 COURSE LENGTH: Year-Long (1 credit) GRADE LEVEL: 11, 12 PREREQUISITE: None DESCRIPTION: Purpose of this course is to prepare students to be active and engaged citizens in American democracy. Course will introduce the fundamentals of American government and politics, particularly the major institutions and processes. It aims to develop skills and abilities

in analyzing and evaluating issues and Public Policies in American politics.

COURSE TITLE: AP American Government

COURSE #: 944

COURSE LENGTH: Year-Long (1 credit)

GRADE LEVEL: 12

PREREQUISITE: 3.7 or above GPA and United States History Teacher recommendation DESCRIPTION: AP Government is a two-semester, college level course offered to students who wish to be academically challenged and plan to take the AP exam in the spring. The course provides students with a comprehensive understanding and DESCRIPTION of American national government and its interactions with the American people. To achieve this goal, students will develop analytic perspective for interpreting, understanding, and explaining political events in this country.

Coorse MAR Entine States History Through Film

COURSE #: 975

COURSE LENGTH: Semester (.5 credit)

GRADE LEVEL: 11, 12

PREREQUISITE: None

DESCRIPTION: This course examines Hollywood feature films and historical dramas as historical evidence. Students view movies on various topics and participate in Socratic seminar discussions, write essay/synopses comparing that film evidence to information in more traditional sources, such as articles, film reviews and critical commentaries.

The course is based around six broad questions:

1. Is film a legitimate historical source?

2. To what extent is film evidence legitimate?

3. What determines legitimacy of film evidence?

4. What determines the illegitimacy of film evidence?

5. Is film evidence ever better than traditional historical sources?

6. Can Hollywood films be used to teach history?

COURSE TITLE: Current Events

COURSE #: 943

COURSE LENGTH: Semester (.5 credit)

GRADE LEVEL: 11, 12

PREREQUISITE: None

DESCRIPTION: This one-semester course open to juniors and seniors is a study of the major news stories of today. Students may take this class two semesters.

### WELLNESS/PHYSICAL EDUCATION

COURSE TITLE: Wellness Junior and Senior COURSE #: 651 COURSE LENGTH: Year-Long (1 credit) or Semester (.5 credit) GRADE LEVEL: 11, 12 PREREQUISITE: None DESCRIPTION: Help students discover their individual responsibility of achieving optimal wellbeing. They will be instructed ways in which they could take preventive measures for a healthy lifestyle and reduce health risk factors. Equip students with skills of how to keep themselves healthy. The correlations between physically active lifestyle and the secret of wellness will be discussed in-depth. Assist students to become actively involved in various indoor and outdoor physical activities. They will also learn how to acquire team spirit. Help students to discover the values of physical exercise and related ideas for a healthier living.