



# METRO CHRISTIAN ACADEMY

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## HIGH SCHOOL COURSE DESCRIPTION GUIDE

2022-2023

This catalog is designed to serve as a guide as you determine the classes that are appropriate for your high school student. This is a comprehensive list of classes and descriptions that are offered at the high school level. However, specific class details may change due to enrollment or other issues that may affect class size, etc.

### CORE CLASSES

#### ENGLISH DEPARTMENT

##### English I (Grade 9)

This course focuses strongly on mastery of fundamental high-school-level composition and research skills. Literature (short stories, drama, poetry, novels) is taught, and students engage with the texts through expository and persuasive discussions and compositions. A continuation of grammatical concepts and sentence/paragraph/essay structure is emphasized.

##### Honors English I (Grade 9)

This course is geared toward students who plan to take upper-level AP and dual-enrollment English courses during the junior and senior years. Strong mastery of the essay form is emphasized, and ACT/SAT-level vocabulary is taught. Students must exemplify mastery of research forms (documentation and citations) as well as timed-writing strategies for essays. Literature (short stories, drama, poetry, novels) is used to provide a foundation for critical analysis. Prerequisites: teacher recommendation and 85% or higher in 8th-grade English.

##### English II (Grade 10)

This course focuses on world literature, ranging from the Bible and Greco-Roman classics to modern-day African works. The course explores the literary continuity of man's journey to know himself, understand his place in the world, and acknowledge his relationship with the eternal. Students will develop literary analysis skills as well as precise written expression of complex original ideas. The course also encourages college-prep reading strategies and effective research & discussion skills.

##### Honors English II (Grade 10)

This course includes further high-level practice of literary analysis, rhetorical terminology, and essay structure. AP/SAT test preparation, vocabulary-building, and research are integral parts of the course, as is continuing to build confidence in timed writings. Novel/play units cover important contributions to world literature. Prerequisites: teacher recommendation and 85% or higher in 9th-grade English.

##### English III (Grade 11)

This course emphasizes improving composition, grammar, and critical-thinking skills while exploring various themes and genres. Students will read selections representative of various time periods and literary movements in American literature while analyzing and discussing philosophies and societal traditions as well as literary devices and rhetorical strategies with a focus on Christian values.

##### Honors English III/Composition I, JBU Dual Credit option (Grade 11)

This course is designed for students prepared to tackle the rigors of a college-level class. College credit can be earned by enrolling in dual enrollment through John Brown University and meeting JBU's grade requirement (Freshman Comp. I equivalent). Students will strengthen their writing skills in academic argument while using rhetorical styles such as exposition, narration, argumentation, and description. Students will also learn the importance of research, various perspectives, and audience when developing an argument. Extensive writing and reading of college-level materials is required. Prerequisites: teacher recommendation and 85% or higher in 10th-grade English.

##### English IV (Grade 12)

In English IV, composition skills and grammar are refined, in conjunction with honing critical reading/analysis abilities and building vocabulary. An in-depth research project prepares the student for college-level writing. In the fall, a college/career unit is taught, focusing on the college admissions process: interviewing skills, application letters, scholarship essays, resumes, and ACT preparedness. Novel studies focus on major contributions from British/Commonwealth writers. The spring-semester Interface Experience (with a professional outside Metro) serves as a capstone project.

## **Honors English IV/Composition II, JBU Dual Credit option (Grade 12)**

This course is geared for students who are ready to tackle the rigors of a college-level class. College credit can be earned through John Brown University. Students will strengthen their analytical skills by researching and applying schools of critical analysis. They will also develop voice, focusing on accuracy, clarity, conciseness, and college-level diction and argumentation. Extensive writing and reading of college-level materials is required. In addition, a college/career unit is taught, focusing on the college admissions process: interviewing skills, application letters, scholarship essays, resumes, and ACT preparation. The spring-semester Interface Experience (with a professional outside Metro) serves as a capstone project. Prerequisite: A or B in Comp I.

## **MATHEMATICS DEPARTMENT**

### **Algebra I**

This course includes these topics: variables, linear equations, operations with real numbers, problem solving, polynomials, exponents, quadratic equations, algebraic fractions, ratio, percent, systems of linear equations, functions, inequalities, graphing, rational/irrational numbers, and radicals and their operations. The use of graphing calculators is introduced to reinforce a sense of numbers, to discover patterns and relationships, and to graph equations.

### **Geometry**

Geometric concepts introduced in other courses will be reviewed and extended. Topics include: perpendicular and parallel lines, congruent and similar triangles, quadrilaterals, polygons, right triangles, circles, Euclidean constructions, areas, volumes, and coordinate geometry. Informal and formal proofs are an integral part of the course. Graphing calculators will be used to reinforce geometric concepts and constructions. Prerequisite: Algebra I.

### **Honors Geometry**

Honors Geometry covers all the topics listed under Geometry but with a more in-depth and comprehensive study. Prerequisite: Honors Algebra I and/or teacher recommendation (based on effort and grade performance)

### **Intro to Algebra 2**

This course is the first of a two-course College Algebra readiness sequence. Topics of study reinforce and extend the concepts of Algebra I and Geometry with a focus on mastery, retention, and application. New topics include statistics and probability, graphing and solving systems of linear equations, linear and quadratic functions, absolute value, inequalities, and simplifying algebraic expressions, and matrices. Concepts are extended to applying patterns and relationships to problem solving situations. Prerequisites: Algebra I and Geometry.

### **Algebra II/Advanced Math**

This is the second course in the College Algebra readiness sequence. Focus continues to be on mastery, retention, and application of important algebra concepts with extension into topics in trigonometry and precalculus. Areas of study include rational and irrational expressions; polynomial, exponential, and logarithmic expressions, equations, and functions; conics and trigonometric functions. Prerequisite: Intro to Algebra II or Honors Algebra II.

### **Honors Algebra II**

Honors Algebra II covers all the topics listed under Intro to Algebra II and Algebra 2/Advanced Math as well as matrices, determinants, probability, and an introduction to statistics. Prerequisites: Honors Algebra I, Honors Geometry, and/or teacher recommendation (based on effort and grade performance).

### **Honors Trig/Pre-Calculus**

This course is designed to prepare students for further study in advanced mathematics by approaching topics analytically. Trigonometry is covered the 1st semester. It includes right triangle trig, circular and inverse trig functions, trig identities, equations, and inequalities, sinusoids, polar coordinates and equations, and polar form (trig form) of complex numbers. Pre - calculus is covered the 2nd semester. It includes the study of these functions: linear, absolute value, squaring, square root, and cubing, greatest integer, rational, exponential, logarithmic, and logistic. Transformations are applied to all these basic functions. End behavior and limits of functions are treated extensively. Data analysis and statistical regressions are also used to exhibit applications of functions. Graphing calculators are used to visualize and reinforce concepts. Prerequisites: Algebra I, Geometry, Algebra II and teacher recommendation (based on effort and grade performance).

### **AP Statistics**

This Advanced Placement course introduces students to the major concepts of both descriptive and inferential statistics. Data is collected, analyzed, and studied to make conclusions. Probability theory and the testing of hypotheses are emphasized for depth and understanding. Graphing calculators are used to create graphic displays and compute advanced statistical measures. The course is structured to prepare students for the AP Statistics Exam which is given in May each year. Prerequisites: Algebra I, Geometry, Algebra II, and teacher recommendation.

### **AP Calculus AB**

This Advanced Placement course is intended for college-bound students who have a thorough knowledge of algebra, geometry, trigonometry, and pre - calculus. The course is structured to prepare students for the AP Calculus AB Exam which is given in May each year. Topics are aligned with the AP guidelines given by the College Board. They include elementary functions, limits, differential calculus, integral calculus, elementary differential equations, and slope fields. Graphing calculators are used to visualize functions, the relationships with their derivatives, and slope fields. Prerequisites: Algebra I, Geometry, Algebra II, Trig/Pre-Calculus and teacher recommendation.

### **AP Calculus BC**

This Advanced Placement course is intended for college-bound students who have a thorough knowledge of algebra, geometry, trigonometry, and pre - calculus. The course is structured to prepare students for the AP Calculus BC Exam which is given in May each year. Topics are aligned with the AP guidelines given by the College Board. They include elementary functions, limits, differential calculus, integral calculus, elementary differential equations, slope fields, parametric, polar and vector functions, and polynomial approximations and series. Graphing calculators are used to visualize functions, the relationships with their derivatives, and slope fields. Prerequisites: Algebra I, Geometry, Algebra II, Trig/Pre-Calculus and teacher recommendation.

### **College Algebra**

College Algebra is a survey of the branches of mathematics that include Algebra, Analysis, Geometry, and Probability. This course will include relations and functions, graphing using transformations, algebra of functions, conic sections, polynomial and rational functions, systems of equations, matrices, exponential and logarithmic functions, binomial theorem, sequences and series, and applications. The teacher assists the students with the online material and helps prepare them for the challenges of a college classroom. Pre-requisites are Algebra 1, Geometry and Algebra 2.

## **SCIENCE DEPARTMENT**

### **Biology**

This laboratory course includes studies in the areas of biochemistry, cellular structure and functions, genetics, ecology, human body systems, and natural selection / evolution. Both microscopic and macroscopic views of life are studied as well as how they interact. Appropriate laboratory activities are introduced demonstrating the use of the scientific method. Dissection is required.

### **Biology B through the Diagnostic Instruction Center (DIC)**

This introductory course provides students with the basic knowledge of living things. Students will learn how to take care of their bodies and maintain their health for their lifetime. They also will learn the basics of cell structure and function; the basics of plant and animal biology and they will learn how to grow plants for food. Use of the microscope as well as additional laboratory equipment will be emphasized. Prerequisite: Instructor approval required.

### **Honors Biology**

This honors level course prepares students for senior level Advanced Placement® Biology. Topics include: Biochemistry, Cell Biology, Microbiology, Cellular Respiration and Energetics, Photosynthesis, Heredity and Genetics, Plant and Animal Biology. Students are expected to understand concepts at an in-depth level using critical thinking and analytical skills. Appropriate laboratory activities and report presentations are required demonstrating the use of the scientific method in independent investigations. Prerequisite: Standardized Test Score Minimum and Teacher Approval

### **AP Biology (Grade 12)**

This advanced placement course is essentially the same biology course taken by college freshmen. Students will perform many laboratory investigations; most of them being inquiry-based and self-guided. This course follows the guidelines as outlined in the AP® Biology College Board national curriculum. To be successful in the class, students must be self-motivated and possess investigative laboratory skills. Topics include Biochemistry, Cellular Structure and Function, Cellular Energetics, Cell Communication and the Cell Cycle, Heredity, Gene Expression and Regulation, Natural Selection and Ecology. Prerequisites: Grades earned of A or B in Biology or Honors Biology and Chemistry (Anatomy/Physiology is highly recommended but not required) and Teacher Approval

### **Honors Anatomy and Physiology (Grades 11 & 12)**

This honors level course provides an in-depth study of the human body. Emphasis on healthy living, understanding disease, and preparation for fields in health studies and medicine will be evaluated. Structure and function of each of the major body systems is investigated including the skeletal system, muscular system, the skin, nervous system, cardiovascular system, respiratory and digestive systems, excretory system, hormones and the reproductive system. This class will culminate with a required eight-week dissection of the cat. Prerequisite: Biology and Chemistry (or concurrent)

### **Chemistry**

This course is an introductory course into the study of matter. It will introduce students to the fundamentals of chemistry, including laboratory safety, formulas, compound names, mole relationships, balanced equations, atomic structure, bonding, and the periodic table. Students will study kinetic theory, properties of solids, liquids, and gases; solutions, acids and bases, ionic compounds and ionic bonding, reaction rates and redox reactions. Lab techniques utilizing safety, stress the use of the scientific method and investigate the chemistry concept. Prerequisite: Biology and Algebra I.

### **Honors Chemistry**

This year long course prepares students for AP® Chemistry and is roughly equivalent to the first semester of general chemistry for a science major's college class (engineering, chemistry, biology, physics). Additional focus includes nomenclature, stoichiometry, aqueous reactions, gas laws, organic chemistry, and time-permitting, thermodynamics. Lab activities reinforce concepts learned in lecture, giving practical, hands-on experience. Inquiry-based labs are included when appropriate. Intended for students who may wish to major in science in college. Prerequisite: Biology and Algebra I.

### **AP Chemistry**

The AP® Chemistry course is designed as the second semester of an equivalent of a year-long general chemistry course for a science major's college class (engineering, chemistry, biology, physics), usually taken during a student's first year of college. Students will gain a depth of understanding of fundamentals and reasonable competence in dealing with chemical kinetics, thermodynamics, and equilibria. The course will contribute to the students' abilities to think clearly and express ideas, logic, and reasonability. An emphasis will be placed on chemical calculations, mathematical formulation of principles and laboratory work. This class is intended for students who may wish to major in science in college. Instructor permission required for enrollment. Prerequisites: Students enrolled in AP® Chemistry must show successful completion of Honors Chemistry and Algebra II

### **Physical Science through the Diagnostic Instruction Center (DIC)**

This introductory course provides students with the basic knowledge of physics, chemistry and astronomy. The course relates these basic sciences to man's physical world. Prerequisite: Instructor approval required.

### **AP Physics 1**

This advanced placement course prepares students for the AP® Physics 1 (algebra based) exam. It is essentially the same as a college level physics course. It is a laboratory-based course that provides students with the basic understanding of the physical laws fundamental to all sciences. Intended for students who may wish to major in science in college. Prerequisites: Biology, Chemistry, Algebra I and II, and Trigonometry. Instructor approval required.

### **Environmental Science through the Diagnostic Instruction Center (DIC)**

This course examines the environment and the effects humans have on it. Topics such as atmosphere, hydrology, biomes, geology, conservation, ecology and energy resources are covered during the span of this course. Emphasis is placed on vocabulary development, science reading comprehension and the graphing of simple data. Prerequisite: Instructor approval required.

### **Environmental Science (Grades 11 & 12)**

This course examines the all-encompassing environment, God's divine design, and how we can become better stewards of the world God has entrusted to us (Genesis 2:15). Students will examine the four spheres (geosphere, hydrosphere, atmosphere, and biosphere) that comprise the earth and how they interact to create our dynamic planet. Students will gain knowledge of the physical aspects that comprise the environment, how living creatures interact within it, and best practices for sustainability. Prerequisites: Biology, Chemistry.

### **Forensic Science (Grades 11 & 12)**

This one-semester course introduces the application of crime science and the law. Students learn how to collect, store, analyze, and interpret evidence as would be collected at a crime scene. They investigate various types of evidence such as hair and fibers, blood, fingerprints, drugs and alcohol toxicology, entomology, and skeletal remains. Use of the microscope and general chemistry and biology concepts are the focus. A final exam includes both lab practical inquiry as well as objective questions. The negative effects of alcohol and drugs is a major focus in the curriculum. Prerequisites: Biology, Chemistry

## **Biology II (Grades 11 & 12)**

This one-semester course is an introduction to practical health and nutrition information. The role of nutrients in health management, weight control, and disease prevention, as well as behavioral influences on eating habits are discussed. Students complete an in-depth food nutrient analysis using chemical tests in a lab setting. Students assess personal nutritional status, develop individual nutrition plans, and learn positive eating behavior modification strategies. Growing of food using Hydroponic Tower Gardens is an on-going laboratory investigation throughout the semester. General health strategies and understanding of various diseases will also be addressed. Prerequisites: Biology, Chemistry

## **HISTORY DEPARTMENT**

### **Oklahoma History (Grade 9)**

This one semester course examines natural features, first inhabitants, American and European explorers, Native Americans, War, Reconstruction, notable Oklahomans, plus the economy, and politics of Oklahoma. The class utilizes hands-on projects that give students a way to become more involved in the learning process.

### **World History (Grade 10)**

This course will study world cultures and their historic developments using both a chronological and topical approach. Critical and creative thinking skills will be utilized to consider and compare different portions of the world and how they have developed at both divergent rates and differing ways. Special emphases will be placed on forces and civilizations shaping the world that students will be facing as they reach adulthood. There will also be an added emphasis on the development and influence of Christianity.

### **AP World History (Grade 10)**

AP World History will follow the same format as the regular World History course with the additional requirements of: (1) supplemental readings; (2) use of primary sources; (3) writing three types of essays: (4) & a higher standard of evaluation. This course covers the history of the entire world and approximately 8,000 years of recorded history in 8 months. It is truly a survey course but with an added emphasis placed on writing and test taking skills that will make it possible for the students to be successful on the AP test that all should plan on taking in May. Prerequisites: A-B or above in previous history classes and instructor approval.

### **US History (Grade 11)**

This two semester course is a study of U.S. History with major focus on the Civil War to the present with a review of Colonial History to the Civil War. The students will also be introduced to Biblical principles of government and Christian History of the constitution to establish for them God's hand in history. The course emphasizes critical thinking skills, and expects that students move beyond rote learning and begins to apply the facts they are learning to particular historical events and issues with understanding.

### **DC US History (Grade 11)**

This two semester course is a college level course that studies US History from the Colonial period to the present. The students are required to do supplemental reading, essay writing and examination of original documents of history. They are also expected to analyze information and support their analysis with relevant historical facts. The course is designed to give the students an in-depth knowledge of American History and prepare the students for the AP exam. The students will also be introduced to Biblical principles of government and the Christian History of the constitution. As the students move through the course they will develop the habit of assessing information through economic, political, and culture/social themes and develop their critical thinking and reasoning skills as well as their writing skills.

### **Government (Grade 12)**

This one semester course studies governmental systems at the federal, state, and local level. It also spends a considerable amount of time teaching an understanding of why the Constitution is still a living and working document. Students also learn what their responsibilities are for being good citizens.

### **DC Government**

This one semester course studies governmental systems at the federal, state, and local level. It also spends a considerable amount of time teaching an understanding of why the Constitution is still a living and working document. Students also learn what their responsibilities are for being good citizens. This is a dual credit course with online instruction through LeTourneau University.

## BIBLE DEPARTMENT

The high school Bible curriculum builds upon middle school curriculum with the ultimate goal of nurturing a student's relationship with Christ and preparing the student spiritually for success on a college campus. In high school, class schedules vary considerably due to differing needs and interests of students. Students may schedule courses based upon their individual scheduling needs; however, we request that they take the courses in the following order:

### **Doctrine – Know What You Believe (one semester)**

This Bible course examines the fundamental beliefs of the Christian faith. This course emphasizes those foundational beliefs that are commonly shared among all evangelicals with opportunities provided for students to explore the specific traditions of their own churches. The doctrines of God, Christ, the Bible, humanity, sin, the Holy Spirit, salvation, and the church outline the content of this course.

### **World View (one semester)**

Students in this one semester course evaluate and trace the major world views of theism, deism, naturalism, nihilism, existentialism, pantheism and postmodernism. Students learn the basic questions that define a world view and evaluate the worldviews from these important questions. World View is an important course to prepare students to more fully understand the Christian faith, defend their faith against opposing world views and witness to others with differing worldviews. The standard of God's truth is emphasized.

### **Personal Finance – A Biblical Perspective of Finances (one semester)**

Since very few individuals in life will be able to afford everything they might want, it is important that each of us be able to maximize our ability to save, give prudently, invest for later needs, and purchase wisely for current expenses. In our Personal Finance class we will be utilizing the Foundations in Personal Finance curriculum of Dave Ramsey, watching the corresponding DVD's, and discussing relevant concepts. We will also be using additional hands-on activities and supplementing those with Jr. Achievement and basic economics materials. Outside speakers will also be recruited when possible to talk to the class about insurance, real estate, handling credit, etc. This course is founded on Scripture with all topics taught from a Biblical perspective. This course includes the fourteen objectives required by the Passport to Financial Literacy Act of 2007 (70 O.S. § 11-103.6h).

### **Apologetics (one semester)**

This course systematically examines a rational defense of the basic elements of the Christian faith including the existence of God, reliability of the Bible, claims of Christ and the historicity of the resurrection. The student is exposed to the various religious, historical and scientific attacks that have typically been leveled at the Bible and Christianity. An overview of world religions and cults is included. The goal of this course is to prepare students to defend their faith against opposing world views and arguments. This course is meant to give students a firm foundation as they leave Metro and enter higher education programs.

### **Missions and Evangelism (Juniors & Seniors)**

Missions and Evangelism is aimed at the development of the whole student – mind, body and spirit. Daily discipleship training encourages students to grow in the personal stewardship of their time, health, giftings, relationships and many other areas. A great amount of time is spent in the Bible and in prayer fostering their personal understanding and relationship with Jesus Christ. This course focuses on serving others from an overflow of this personal relationship with a Savior that daily guides our growth and decisions. While every class will weekly serve in the neighborhood schools, the international Missions and Evangelism class will travel abroad over spring break.

## WORLD LANGUAGE DEPARTMENT

### **Spanish I**

Students will learn to correctly use regular –ar/-er/-ir verbs, many irregular verbs, stem-changing verbs in the present tense, as well as regular verbs in the preterite. They will also learn basic vocabulary, direct and indirect object pronouns, accents and other punctuation. They will demonstrate appropriate subject-verb agreement, adjective agreement and adjective placement. Students will also acquire basic cultural knowledge, including the names of Spanish speaking countries and capitals, appreciation for Hispanic art and literature and contributions made by prominent Hispanics. Attention is given to covering the basic grammatical rules of the Spanish language. Course completion objectives include an ability to ask and answer simple conversational questions and to understand basic differences.

## **Spanish II**

Spanish II students will continue to build their vocabulary knowledge, learn to use the preterit and imperfect tenses and be able to distinguish their uses. A significant portion of the year will be dedicated to learning the subjunctive mood and other compound tenses. They will also learn negative and indefinite words, formal and informal commands, and reflexive verbs in all the tenses mentioned above. Students will continue to be exposed to culture through a focus of music and celebrations. They will gain an appreciation for Hispanic art and literature and contributions made by prominent Hispanics. Students will also review the names of Spanish-speaking countries and capitals. The Spanish II student will continue to develop skills in listening, reading, oral and written communication. As a result, students produce more independently developed answers to questions, thereby indicating a better understanding of the language.

## **Honors Spanish III**

Students will continue to build vocabulary knowledge. Students will review all concepts from the first and second year, as well as expanding on these concepts. They will use their skills to listen, read, write and speak in Spanish daily. The Spanish III student will continue to be exposed to culture through a focus of traditions in various Spanish speaking countries utilizing authentic materials. The student should be able to engage in limited discourse on topics familiar to him/her. The Honors Spanish III class prepares the advanced student to take AP Spanish and ultimately, the Advanced Placement Exam. Prerequisites: Spanish II with B or higher and instructor approval.

## **DC Advanced Spanish I**

This is a dual credit course with online instruction through LeTourneau University. A basic beginning semester course for students with no previous study of Spanish. Emphasis on speaking, writing, reading, and listening, as the basis for the development of all three Communication Modes (Interpersonal, Interpretive, and Presentational). Hispanic cultures will be introduced through a variety of texts, including readings, music, art, and film. Note: Conducted in Spanish.

## **DC Advanced Spanish II**

This is a dual credit course with online instruction through LeTourneau University. For students with the equivalent of one semester of previous study of Spanish. The emphasis is on strengthening students' interpersonal, interpretive, and presentational skills in both oral and written Spanish. Hispanic cultures are presented through a variety of authentic texts, including short pieces of literature, essays, and newspaper articles. Music, art, and film are also included. After Elementary Spanish I (SPAN 1113) and II (SPAN 1123), students should be able to engage in everyday conversations with native speakers, and read straightforward texts, both fiction and nonfiction, with relative ease. Note: Conducted in Spanish. Prerequisites: DC Advanced Spanish I (SPAN 1113)

## **French I**

Introduces students to the culture and language of the French-speaking world. Students develop an ability to communicate in real-life situations by acquiring reading, writing, listening, and speaking skills. This course is intended for students with no prior knowledge of French.

## **French II**

Builds on the skills acquired in French I. Students continue to develop an ability to communicate in real-life situations by acquiring additional reading, writing, listening, and speaking skills as well as cultural competency in the French-speaking world. Prerequisite: French I

## **American Sign Language I**

In the first year of American Sign Language, students will learn basic ASL vocabulary, begin conversation skills, and gain an understanding of Deaf culture through vocabulary practice, activities, projects, and research. Students will also have an opportunity to use their skills in the Deaf community.

## **American Sign Language II**

After students successfully complete American Sign Language I, they can continue to American Sign Language II. Students will increase their ASL communication skills both receptively and expressively through vocabulary activities, classes presented mostly or fully in ASL, and a variety of signed projects. By the end of ASL II, students should be able to have conversations in the Deaf community.

## **American Sign Language III**

Students who wish to use American Sign Language long-term or who desire to improve their ASL skills should continue their studies in ASL III. Each week, students will strive to grow their knowledge base by engaging in interpreting practice, participating in classes presented fully in ASL, and discussing current events in sign.

## COMPUTER SCIENCE DEPARTMENT

### Computer Applications

This course focuses on furthering student computer literacy by becoming proficient in word processing, spreadsheet, database, multimedia presentation, and email applications. Students apply what they have learned to research and problem solving, producing a variety of documents as practice for real world situations.

### Computer Graphics (one semester)

Graphic Arts is a very important part of a free enterprise system, providing a demand for career opportunities in the creative, technical, and skilled labor areas of the field. Students in Computer Graphics will be introduced to the area of Graphic Arts, developing skills and knowledge in the basic design and basic techniques of graphic software (Adobe Photoshop).

Level 1 - Students will gain a broad perspective of the full scope of Photoshop, building on basic concepts to investigate more advanced topics and techniques. Students will learn the essential skills for working with Adobe Photoshop from both the design and production perspective, including creating and managing layer masks, creating color effects and improving images with adjustments layers, working with text and combining text and imagery, and using filters and layer styles to create unique special effects.

Level 2 - Students that have successfully completed Level 1 Computer Graphics and receive instructor permission to enroll. Students will advance their skills in the area of Computer Graphics through various tutorials in advanced Photoshop techniques and design principles. Mastery will be demonstrated through individualized projects.

### Computer Science

This one-year course emphasizes basic computer programming. Students will become familiar with computer concepts and information in the areas of algorithms, programming languages, operating systems and user support, computer architecture, and social, ethical, and professional context. Students will learn to code programs using the high level language of JAVA. As part of this course, students will be exposed to a broad range of computing tools and skills while creatively addressing real-world issues and concerns.

### Honors Computer Science

Successful completion of the first year course Computer Science, will allow students to be considered for a second year in Honors Computer Science. This course will further expand on the programming language Java and introduce Single-Dimensional Arrays, Multidimensional Arrays, Inheritance, Polymorphism, and Interfaces. Students will create a project using GUI controls.

### AP Computer Science Principles

The AP Computer Science Principles course introduces students to the essential ideas of computer science and helps them to understand how computing and technology can influence the world around them. As part of this course, students will be exposed to a broad range of computing tools and skills while creatively addressing real-world issue and concerns. Along with the fundamentals of computing, students will learn: Creative problem solving, how to apply computational processes to analyze large data sets, internet structures and important cyber security issues, programming, and global impacts of computing.

### DC Computer Science I (one semester)

This is a dual credit course with online instruction through LeTourneau University. An introduction to the field of computer science. Problem solving strategies, basic data structures, and an introduction to algorithms in the context of a modern programming language. A first course in programming with an emphases on scientific and engineering applications.

### DC Computer Science II (one semester)

This is a dual credit course with online instruction through LeTourneau University. A second semester study of computing principles. Abstract data types, object-oriented programming concepts, and introductory topics of graphical-user interfaces, unit testing, and file structures. Students hone their problem solving skills through a variety of programming assignments. Prerequisite: DC Computer Science I (COSC 1303)

### **Web Design (one semester)**

This course is a one-semester introduction to Web Design. Students will learn how to navigate the web and to learn appropriate searches for academic purposes, as well as how to create web sites that flow properly, are simple yet attractive, and that allow users to navigate to the information they are seeking. Students will learn to be proactive in how to use and evaluate high quality web sites.

Level 1 requires students to learn and use HTML and CSS coding, rather than a proprietary program and often is taken the semester after Web Graphics.

Students in Level 2 will have successfully completed Level 1 Web Design and received instructor permission to enroll. Students will advance their skills in the area of Web Design through various advanced tutorials and proprietary programs, i.e. Dreamweaver.

### **HS Robotics**

This year long course introduces basic concepts and methodology relative to engineering process and computer programming. Students will compete against local schools in the First Tech Challenge robotics league hosted by First Robotics. Students are given challenges and are required to build a robot using the engineering process that can complete the challenge efficiently. Students will utilize 3D printing technology in the solution to the problem they are presented with. Materials used in class will be Pitsco Tetrax kits in combination with modern robotics modules for building their robots. Students who enroll in this class must have a basic understanding of computers, must receive permission from the instructor to enroll, and must commit to participation in all competitive events, including but not limited to, working after school and weekend competitions. This course will fulfill high school computer requirements for graduation. Class size is limited to 14 and must be approved by robotics teacher. Because of registration costs there is a \$60 class fee associated with this course.

## **FINE ARTS DEPARTMENT**

### **Oratory**

A full year course designed to prepare the student to communicate in the world today. The course includes study of why and how people communicate, how to improve communication, and finally, public speaking. The public speaking section includes speaking to inform, speaking to persuade, introduction to debate and argumentation, speaking to entertain, and oral interpretation.

### **DC Oratory**

This is a dual credit course with online instruction through LeTourneau University. A study of basic communication principles, with emphasis placed on public speaking. Topics include classical origins of communication, communication theory, speech development and organization, use of visual aids, and strategies for informative, persuasive, and special occasion speeches. Students have multiple speaking opportunities in class. NOTE: This is a General Education core course for all degrees.

### **High School Drama (cannot be taken twice)**

Theatre Arts is a full year course designed to introduce the student to all aspects of drama and theatre production. Students will study acting techniques, structure of dramatic literature, theatre history, varieties of drama, as well as all the aspects of play and musical production. Students will study fundamentals of scene design, costuming, make-up, lighting and full production requirements. Theatre Arts is required before students move into any other drama class.

### **Theatre Production**

Theatre Production is designed for the serious drama student. The class will work extensively on scene and character development, scene structure, play writing and theatre history. The class is designed to prepare the student to enter drama programs in the University level. Students will be required to be involved in all drama department productions including but not limited to one act, winter production and the spring musical. \*Audition required for admittance.

### **Rhetorical (Competitive Debate)**

The class is offered to students who desire to compete in speech competitions. The course includes work in Lincoln Douglas debate, PF (team) debate, Original Oratory, Standard Oratory, and Extemporaneous Speaking. Students will be required to compete in two tournaments per semester. Speech Communications is desired, but not required.

\*Instructor permission required.

## **Stagecraft**

The student will develop hands-on knowledge of methods and principles of backstage production. We will discuss and incorporate proper theatre safety procedures. The student will gain basic skills and working vocabulary in scenery, lighting, property construction, scene painting, and sound. Students will be required to crew for a minimum of one show per semester. \*Instructor permission required.

## **Praise & Worship (Grades 9-12)**

This class is a training ground for those interested in the ministry of being part of a praise and worship band. Members of the class will lead praise and worship for High School Chapel. Class time will include practice and musical instruction with intense Bible study. This course counts as a Fine Arts credit.

## **Art I (Grades 9-12 - cannot be taken twice)**

Students will develop skills in drawing, painting, and a variety of media while exploring personal visual ideas. Success is not dependent on a student's previous skills. Experimentation in a wide range of styles and materials is encouraged and the principles and elements of art are emphasized. While engaged in creative thinking, the right side of the brain develops. This benefits thinking in all other subjects as well, since creating ideas and solutions is considered one of the highest levels of thinking. This course also covers basic art history but emphasizes production of art. Students exhibit in the All School Spring Art Show and are invited to join Art Club. Students produce work for the art fundraiser 10 X 10 show and sale.

## **Art II (Grades 10-12)**

Art II is for students who have taken Art I or who have some past experience in making art, and who have a sustained interest in producing art. High skill drawing level is not required. Art II students enter competitions, take a field trip, and are invited to apply for National Art Honor Society. Art II is a good stepping stone to AP Studio Art, or just a more serious study. Art II produces 2D and 3D art in a variety of mediums, including graphite, ink, charcoal, acrylics and watercolor. Students are introduced to 3D work and photography. Study includes the principles of design and covers basic art history, highlighting artists that have made important artistic contributions. Perspective drawing, as well as portraiture, still life, op art, architectural, interior and/or fashion design are covered. Art II may be taken more than one year as lessons rotate. Students exhibit in the All School Spring Art Show. Students in 10-12 grades who have not taken Art I but wish to take Art II will conference with the Art II teacher before being accepted.

## **Ceramics I and Ceramics II (Grades 11 & 12 - one semester)**

Students will learn basic and advanced techniques for constructing artwork in clay and how to apply design and glaze. The clay wheel is part of the curriculum. This class has a limit of 15 students and a supply fee is collected. Students who have successfully completed Ceramics I will be enrolled in Ceramics II.

## **Photography (Grades 11 & 12 - one semester)**

Photography class curriculum emphasizes both technical photography skills as well as creative elements that must be present in powerful photography. Students will become familiar with photographers whose work has impacted history and art, including current photographers around the world. Students will enter competitions and exhibit in the Spring Art Show. This class is limited to 15 students and a supply fee is collected. Students should have use of a digital 35 mm camera but may take this class even if they do not have access to one. Students will be required to turn in prints of their photos and keep a digital folder up to date.

## **AP Studio Art: Drawing/AP Studio Art: 2-D Design (Grade 12)**

AP Studio Art is two separate classes:

AP Drawing/Painting focuses on the drawing/painting techniques and mediums. AP 2D Design focuses on the production of art based on the principles of design, and work in drawing, painting, photography and computer art. Each student selects which medium they want to focus on.

AP Studio Art is a fast-paced college level course that is both rigorous and exciting. Students will produce college level artworks and submit a portfolio for college credit. In both courses, students select a topic to develop visually into an exhibit, called an "investigation" and also produce works representing a variety of ideas and/or mediums. AP Studio Art develops the artist's imagination and ability to conceptualize. Students are part of a small group in AP Art who mentor one another and build community. Students take field trips, enter competitions, and explore specialty materials and methods. Students have their own art space in the AP Art Studio and are a major part of the Metro Spring Art Show, as well as other exhibits, including Gilcrease Museum of Art. All AP Art students are invited to apply for National Art Honor Society and wear an honor cord at graduation. Students will produce artwork they will treasure for the rest of their lives. Interested students are accepted through application and teacher interview.

### **Studio Art Lab**

A class hour used to extend work time for AP Studio art students. Students work independently on current assignments. This class is limited to students enrolled in AP Studio Art. There is no credit earned for this class.

### **High School Band**

An advanced ensemble, each member must have at least three years experience. Activities include: Concert Band, Marching Band, various contests, and a student-funded spring trip/tour. All students are expected to prepare All-District Band audition music and District Solo & Ensemble etudes. Private lesson instruction is strongly recommended. \*Instructors permission required.

### **Beginning Band**

The rental or purchase of a musical instrument and purchase of individual method book is necessary. Activities include a Christmas Concert, Spring Concert, and some type of competitive contest in the spring. Private lesson instruction is strongly recommended.

### **Jazz Band**

The Jazz/Pep Band is an elite ensemble that studies all forms of jazz, swing, blues, funk, rock, fusion, and Latin. There is an emphasis on music theory and improvisation. This band also serves as the school pep band during the Spring Semester. Activities include: public performances, Christmas concert(s), Select Basketball games, a competitive contest, and a possible spring trip/tour. \*Instructor's permission required.

### **Music Theory**

The study of how music works. It examines the language and notation of music. It seeks to identify patterns and structures in composers' techniques within genres, styles, or historical periods. Music theory analyzes the fundamental elements of music—rhythm, harmony (harmonic function), melody, structure, form, texture, etc. In the second semester, students will learn to compose an original song using their knowledge of music theory.

### **Creative Writing and Film Production**

This class combines creative writing—that of poetry, short stories, screenplays, etc.—with that of basic film production: introducing students to the tools, techniques, and terminology used in filmmaking. By integrating the skills and knowledge developed in the creative process, students will work both independently and collaboratively to produce several works of written art, short films, and other varied exercises. Students will also have the opportunity to analyze films from all genres and decades and learn the fundamentals of various film equipment.

## **ELECTIVES**

### **Freshman Foundations**

This course is required for all freshmen and will include a variety of topics. Class time will be used to help the freshmen transition smoothly into high school by covering topics such as study skills, time management, interest/aptitude inventory, social involvement, organizational skills and other areas that will help set up students for long-term success. Additionally, some class time will also function as a study hall with teachers facilitating grade checks and assisting students academically where needed.

### **Interface PLUS**

Metro Christian Academy plans to expand its very successful two-day Interface program for selected seniors during the 2022-2023 school year. Interface PLUS will be offered as an independent class, stretching throughout the school year. Students will commit to working with a professional mentor at the partner's workplace. At the end of the year, students will submit a project that they have worked on throughout the year.

### **Business Concepts**

This course is an introduction to business and the private enterprise system from the perspective of the Christian world view. The course will provide students with an understanding of the foundational principles of business, including Economics, Entrepreneurship, Finance, Marketing, Management and designing business documents.

### **Accounting I (Grades 11 & 12)**

This one-year course emphasizes basic accounting principles. Students learn to interpret business forms and to complete the steps in the accounting cycle - from journalizing to financial statements. An introduction to Quickbooks will follow to demonstrate how the accounting cycle functions in an online accounting system.

### **AP Psychology with JBU Dual Credit Option**

The purpose of this course is to introduce students to an overview of psychology, its history, and its application to individual lives. Students will study various psychological views, principals, facts and phenomenon associated with subfields of psychology. Research methods that psychologists use will be analyzed and students will learn to read and interpret data from various types of studies. Due to sensitive material and conversations, students must come with a mature attitude. This class is recommended for juniors and seniors. This is a full year course.

### **Leadership in Action**

This leadership class will be comprised of: Elected Student Council Officers (11-12 grades only), Class President and Vice President (10-12th grades), selected Committee Chairpersons (10th -12th grades) and NHS President and/or Vice President. Criteria for elected offices and committee chairpersons may consist of teacher recommendations, speeches and/or videos, personal interviews and involvement in school/club activities and meetings. It is mandatory for all students in this class to attend the BASIC Leadership Camp, the Leadership Class Retreat (usually the end of July) and be able to enroll in this 5th hour class.

Purpose: Through real-life, hands-on application of different types of experiences and situations, the students will learn and practice effective communication skills, collaboration and team building, time management and organizational skills, decision making and problem solving, and vision and goal setting while understanding how to become a more effective leader. The curriculum will also emphasize the importance of understanding the elements of trust, respect, responsibility, honesty, ethics, delegation, creativity, commitment, open-mindedness, flexibility and building a strong Christian character.

Students will plan, organize, execute, evaluate and participate in a multitude of school and community events (Welcome Back Week, Homecoming, Pep Assemblies, etc.) and service projects while creating a productive class environment and a positive atmosphere of school spirit and unity. While working with their peers, school administrators and community leaders, these hands-on, Christian leadership experiences will offer students a way to learn more about herself/himself and to explore whom she/he is in Christ and to realize their potential and responsibility as a leader.

### **Study Lab**

The purpose of Study Lab is to provide a daily opportunity for structured study time with assistance as needed. The use of an agenda or a personal calendar is stressed in each Study Lab class to teach and develop organizational skills. Class time can be used to complete homework, review for tests, monitor assignments, and to review concepts; however, the structure of Study Lab does not accommodate individual tutoring. Study Lab may also be used to complete exams from other classes – a student may complete the exam in the Study Lab classroom or be excused to the specific teacher's classroom. Study lab is limited to ten students per class period to enable the teacher to best meet the needs of each student. There is an additional fee for this elective.

### **Yearbook**

The purpose of this class is to create Metro's elementary and secondary yearbook. Students are involved in every aspect of book production: from planning and design to production and distribution. This class teaches both computer design and project management, as well as a multitude of life skills such as time management, written and verbal communication etiquette, and leadership. Students must complete an application process to be admitted to Yearbook.

\*Instructor permission required.

## **COURSES NOT FOR CREDIT**

### **Advanced Study Hall (Grades 11 & 12)**

Advanced Study Hall is available for students in grades 11 and 12 who are enrolled in a minimum of 2 Advanced Placement courses and have a cumulative unweighted GPA of 3.0 or higher. This may be a one or two semester course.

### **Concurrent Period (Grades 11 & 12)**

A Concurrent Period is available for students in grades 11 and 12 who are interested in taking an online class of their choice through a university of their choosing. Students must have a cumulative unweighted GPA of 3.0 or higher and meet minimum testing scores of 20 composite on the ACT or 1000 composite on the SAT or PSAT. Additionally, juniors must have accumulated at least 14 credit hours by end of sophomore year and seniors must have accumulated at least 21 credit hours by end of junior year.

### **HS Aide**

Seniors with a 3.0 unweighted cumulative GPA may be a student aide for one or two semesters.