

# LOGANVILLE HIGH SCHOOL

## ELECTIVE COURSES 2020-21

### CTAE PATHWAYS:

#### **Horticulture and Animal Science**

This pathway exposes students not only to plant production but also animal production. Students will have the opportunity to learn through hands-on experiences in the school garden, greenhouse, and at the Loganville FFA Livestock Facility. Students will be producing the spring and fall plant sell crop as well as learning about animal genetics all the way through consumption. They will also have the opportunity to participate and compete in FFA Career Development Events that will put their knowledge of the industry to the test!

*Classes required for pathway completion: Basic Ag Sci; General Horticulture and Plant Science; Animal Science*

#### **Plant and Landscape Systems**

A career in plant and landscape systems offers a variety of job opportunities in the fields of education, research, golf and sports turf, landscape design, parks and gardens, public service, production management, and sales and marketing. The Plant and Landscape Pathway allows students the opportunity for hands-on learning through our school garden, greenhouse, and outdoor landscape design projects. Students are given the opportunity to become a certified Georgia Green Industry Association Plant Professional. They will also have the opportunity to participate and compete in FFA Career Development Events that will put their knowledge of the industry to the test!

*Classes required for pathway completion: Basic Ag Sci; Gen Horticulture & Plant Science; Nursery and Landscape*

#### **Business and Technology**

Career opportunities in every sector of the economy include technical and business skills learned within this pathway. A strong foundation of business concepts integrated with technology skills used in business will prepare workers for every occupation. Students that complete this pathway will have the opportunity to earn Microsoft Office Specialist certification in WORD, EXCEL, ACCESS, and POWERPOINT. This certification is recognized by business professional worldwide.

*Courses required for pathway completion: Intro to Business & Tech; Business & Technology; Business Communications*

#### **Web and Digital Design**

Workers in digital media design bring ideas to life through technology, whether creating a web site, a training video or designing the latest computer game or mobile application. Careers in web and digital communications involve creating, designing and producing interactive multimedia products and services, including the development of digitally-generated or computer-enhanced media used in business, training, entertainment, communications and marketing. Sample interactive media occupations include web designer, webmaster, 3D animator, virtual reality specialist, multimedia producer and graphic artist.

*Courses required for pathway completion: Introduction to Digital Technology; Digital Design; Web Design*

#### **Computer Science**

Engage your creativity, demonstrate and build your problem solving ability all while connecting the relevance of computer science to the society. Various forms of technologies will be used to expose students to resources and application of computer science. In the 2<sup>nd</sup> class, students learn to write code using Python. During the final course in the pathway, students will focus on computing skills relating to programming in Java. Strong math skills are recommended.

*Courses required for pathway completion: Introduction to Digital Technology, Computer Science Principles, and AP Computer Science*

#### **Computer Science – Programming and Games**

Engage your creativity, demonstrate and build your problem solving ability all while connecting the relevance of computer science to society. Gain a broad basis of appreciation for the field of computer science by engaging in the use of different technologies while being immersed in many popular programming languages like JavaScript, Python, and C#. These languages are presented in many interactive ways including application development, web development, musical composition, and gaming. Students will be given the opportunity to obtain the Microsoft Software Development Certification upon completion of the pathway.

*Courses required for pathway completion: Introduction to Digital Technology, Computer Science Principles, and Programming, Games, & Apps*

### **Computer Science – Advanced Placement (AP) tract**

This tract culminates with two college-level courses (AP), which can lead to college course credits in Computer Science. Engage your creativity, demonstrate and build your problem solving abilities, all while connecting the relevance of computer science to society. Various forms of technologies will be used to expose students to resources and the application of computer science. Among other things, students will learn how to write code in JavaScript, Python and Java. Strong math and science skills are recommended. Upon completing this pathway, students may also opt to take our Programming Games and Apps course for a much broader preparation in the computer sciences.

*Courses required for pathway completion: Intro to Digital Tech, AP Computer Science Principles, and AP Computer Sci*

### **Personal Care Services - Cosmetology**

Cosmetologists cut, trim, shampoo, style, color, bleach, highlight hair and offer permanent wave service. They also provide scalp and facial treatments and makeup analysis. Some also clean and style wigs and hairpieces and a growing number of actively sell skin care products. These courses allow you to begin earning State Board hours for licensing towards many of these careers; some schools even offer scholarships for hours earned! You will also have the benefit of real on the job training while working on mannequins as well as clients.

*Courses required for pathway completion: Intro to Personal Care Services; Cosmetology Services II; Cosmetology Services III*

### **Nutrition and Food Science**

Those working in the food and nutrition field help people lead healthier lives through a balanced diet. These people plan food and nutrition programs and supervise the preparation and serving of meals. They help prevent and treat illnesses by promoting healthy eating habits and by recommending dietary modifications. Job opportunities in this field include managing food service systems for institutions, such as hospitals and schools; and promoting sound eating habits through education and conducting research. Students taking these courses will participate in activities including preparing and cooking healthy, delicious, fun snacks and meals.

*Courses required for pathway completion: Food, Nutrition, and Wellness; Food for Life; Food Science*

### **Therapeutic Services - Sports Medicine (Dual Enrollment application is required)**

Workers in sports medicine focus on improving the body's performance, recovering from injury, and preventing future injuries. Sports medicine is one of the fastest growing areas of health care, providing specialized help to many "regular" people, as well as athletes. Sports medicine professionals treat patients who participate in sports just for fun or want to get better results from their exercise program, patients who suffered injuries and want to regain full function, and people who have disabilities and want to increase their mobility and capabilities. Many careers in this field require degrees, and certification may improve chances to find a job. Employment of athletic trainers is expected to grow by 30 percent from 2010- 2020, much faster than the average for all occupations. As people become more aware of sports-related injuries at a young age, demand for athletic trainers is expected to increase, most significantly in schools and youth leagues.

*Courses required for pathway completion: Intro to Healthcare Science; Essentials of Healthcare; Sports Medicine*

### **Engineering and Technology**

Today's professionals in the engineering and technology field continue to revolutionize the way we live. Engineers design, produce, operate, and maintain a variety of equipment and services we use in our everyday lives. Engineers may work in design and development, testing, production or maintenance. The engineering pathway will provide information into several different types of engineering and potential ways to land an engineering career. Some engineering specialties include Civil, Mechanical, Architectural, Environmental, Automotive, Agriculture, Industrial, and many more.

*Courses required for pathway completion: Foundations of Engineering and Tech.; Engineering Concepts; Engineering Applications*

### **JROTC**

The objectives of JROTC are to educate and train high school cadets in citizenship, promote community service, instill responsibility, character, and self-discipline, and provide instruction in air and space fundamentals. The AFJROTC program is grounded in the Air Force core values of integrity first, service before self, and excellence in all we do. The curriculum emphasizes the Air Force heritage and traditions, the development of flight, applied flight sciences, military aerospace policies, and space exploration. JROTC is taught at MAHS. Bus transportation is provided.

*Any 3 JROTC courses will count toward pathway completion*

## **Early Childhood Care and Education (ECE) (application is required)**

As a teacher, you could influence young lives. You could also support the work of a classroom teacher as a counselor, librarian, or principal. You could coach sports activities or lead community classes. The Early Childhood Education pathway provides students with hands on experience working with the preschool students in the on-site laboratory (Loganville Little Learners Preschool). Students will gain their CPR/First Aid Certifications, Fire Safety Certifications, and can attain their CDA (Child Development Associate). Also, some colleges and universities articulate the ECE courses for college credit. All students will take a nationally recognized assessment displaying his/her knowledge in Early Childhood Education basic care.

*Courses required for pathway completion: ECE I; ECE II; ECE III; ECE Practicum*

## **Foreign Language**

Foreign Language courses are academic electives – calculated into the HOPE GPA. French, Latin and Spanish are offered at LHS. FL credit is not mandatory for graduation; however, both two-year and four-year colleges require 2 to 3 FL credits for entrance. The Foreign Language pathway requires students to take 3 semesters in one target language (e.g.: Spanish I, II, and III). Students completing 4 Foreign Language credits (either all in the same language or 2 credits in 2 languages (e.g.: French I, II and Spanish I, II) will be awarded with a Diploma Seal in World Languages. Spanish is not available to rising freshmen.

## **Visual Art**

A fine arts pathway may be followed in the Visual Arts by taking at least 3 of the courses offered in the Visual Arts program: Visual Arts I, 2-D Drawing/Painting, 3-D Sculpture/Ceramics, Advanced 3-D Art, Photography, and A.P. Art. Some careers requiring a degree in Visual Arts include Art Teacher, Interior Designer, Fashion Designer, Industrial Designer, Game Designer, Animator, Photojournalist, Web Designer, Advertising, Set Designer, Museum Curator, Television and Movie Production, Videographer and Photographer. The Visual Arts Pathway provides students with hands-on experience in many of these disciplines and gives them the valuable foundation required to advance to higher level post-secondary studies.

*Any 3 Art courses will count toward pathway completion (Visual Arts, 2-D Art, 3-D Art, Photography I and II, AP Studio Art)*

## **Drama**

Have you ever thought about being an actor/actress? How about technical theatre, such as lighting and sound design, set construction, hair & make-up, or even directing? Or maybe you just want to learn some public speaking skills. If any of these apply to you, be sure to sign up for Fundamentals of Drama so that you can proceed into the Performance Drama class. In the Fundamentals of Drama course, you will learn the basics of acting, skills that will help “bring you out of your shell” and increase your theatrical vocabulary and be part of a One Act performance (on stage, back stage or both!). When you get into the Performance Drama class, you will be auditioning for and performing in full length plays (or musicals) or if you take Technical Theater, you will be helping with technical elements of the production. Three courses in drama are required to complete the pathway. **Can choose between Acting and Technical Theatre (lighting, set design, make-up, costumes, etc.)** \*Be aware that there are often extra-curricular commitments in advanced classes AND there can also be participation fees (scholarships and waivers available).

*Any 3 Drama courses will count toward pathway completion (Fundamentals, Technical Theater, and Acting)*

## **Band**

Do you have a passion for music and wish to explore that further? With the Band pathway, you can learn a new instrument or continue learning on an instrument you already know. We offer instruction for all woodwind, brass, and percussion instruments. In addition to our regular band concerts, participating in the band pathway makes you eligible to attend honor band clinics and camps outside of school, performing with nationally recognized conductors and soloists. Students taking band classes are able to perform with the Marching Red Devils at all varsity football games and marching band competitions. In class we will learn the foundations of tone production, rhythm, ensemble and solo performance, and composition. These lessons will prepare you to pursue a future career in music. Pursue your passions with the band pathway.

*Any 3 Band courses will count toward pathway completion (Band, Guitar I, and Guitar II)*

## **Chorus**

Chorus is for everyone that loves music and wants to improve their singing skills! Whether you belong on "The Voice" or just enjoy singing in the car, this is the path for you. The choral courses will prepare students to further their musical careers and gain an appreciation for a variety of quality musical literature and raise confidence in performing before others. You will have the opportunity to perform for your school, community, at Honors Chorus, in Literary Competitions, and at All State Chorus. You will participate in concerts that range in style from Classical to pop and Broadway. Join the LHS choral family and find a home where each individual is appreciated, accepted, and mentored.

*Any 3 Chorus courses will count toward pathway completion*

## **NON-PATHWAY GENERAL ELECTIVES:**

### **General Physical Education**

This course provides opportunities to participate in a variety of activities to enhance flexibility, muscular strength and endurance, cardiovascular endurance and body composition. Students participate in cardiovascular activities, weight training, and lifetime sports such as basketball, volleyball, soccer, speedball, kickball, dodgeball, and whiffle ball.

### **Weight Training (Males)**

Students will be introduced to weight training with emphasis on strength development training and proper lifting techniques. Additionally, students will participate in cardiovascular activities 3 days a week and learn fitness concepts for developing healthy lifetime habits.

### **Physical Conditioning (Females)**

Students will increase strength, cardiovascular and muscular endurance, and flexibility as well as learn fitness concepts for developing healthy lifetime habits. Activities in this course include distance running, sprint work, weight training, Insanity, T25, and P90X. *Prerequisite: Health and Personal Fitness*

### **Body Sculpting (Females)**

Students participate in strength and conditioning, weight training, speed and agility, and core training activities. *Prerequisite: Health and Personal Fitness*

### **Exercise and Weight Control (Females)**

Provides safe, effective and physiologically sound ways to manage weight and alter metabolism and body composition. Includes consumer information on products, programs and fitness concepts for developing healthy lifetime habits. *Prerequisite: Health and Personal Fitness*

## **ACADEMIC ELECTIVES:**

### **Mythology**

This course introduces the importance of myths and tales of classical mythology, focusing on a comparative study of plot, characters, themes, and figurative devices. The course emphasizes critical and analytical skills, vocabulary development, a study of the influences of Greek, Roman, and Norse word origins on the English language, and composition.

### **Journalism: Newspaper**

This course prepares students to create and maintain the LHS literary news magazine. It provides an understanding of the principles and practice of journalism. Writing for digital platforms is explored and developed. In addition, there is a creative writing emphasis to this course. Students will be instructed in creative writing techniques; on a daily basis, students will create original forms of descriptive writing, poetry, drama and fiction that will be placed in the literary news magazine. Application/Work Sample required.

## **Psychology**

Psychology is defined as the scientific study of the mind and behavior. In a high school psychology course, students are introduced to the scientific method and the core ideas and theories of psychology. As a result, students gain an understanding of the complexities and diversity of human thought and behavior. This course investigates the principles of psychology, developmental psychology, heredity and environmental aspects of psychology, learning theory, personality, intelligence, social disorders and research methods used in the study of psychology.

## **Sociology**

Sociology enhances students' understanding of the social world and increases their motivation and interest in studying social processes and groups in a scientific manner. Sociology covers topics such as peer groups, group identities, romantic relationships, deviance and conformity, and substance abuse. Sociology helps students to understand themselves better, since it examines how the social world influences the way they think, feel, and act. Students need to understand the social processes that contribute to problems such as poverty, violence, crime, and climate change if they are to have the tools to work toward solutions to the pressing global issues we all face in the 21st century

## **US History in Film**

This course Explores United States History through film. This class will aim to challenge students to question and evaluate the modern perception of United States history and how our understanding of history is affected by the manner in which we choose to learn about it. Our main focus will be the popular culture interpretation of history represented through featured films. *Prerequisite: US History.*

## **Early Military History**

This course investigates United States Military History from 1763 to 1890 and includes analysis of major battles, strategies, and weapon development. Integrates and reinforces social studies skills, especially map and globe skills.

## **Modern Military History**

This course investigates United States Military History from 1918 to the present. Includes analysis of major battles, strategies, and weapon development. Integrates and reinforces social studies skills, especially map and globe skills.

## **A/V & Film**

This course provides an overview of film, television and video and their relationship to video production. Covers technical considerations of program production and the interactive roles of the director, editor, actor, choreographer and technical designers. Provides opportunities to analyze film, television and video productions and to develop criteria to evaluate these media forms.

## **Zoology**

This is a laboratory based course that will survey the nine major phyla of the Kingdom Animalia and their morphology, taxonomy, anatomy, and physiology will be investigated through comparative studies done during laboratory observations and dissections. Furthermore, students will compare and contrast methods used by organisms from different phyla to accomplish basic life processes. A lab fee of \$10 is requested. *Prerequisite: Biology, Chemistry and Physics*

## **Forensic Science**

In this course students will learn the scientific protocols for analyzing a crime scene, how to use chemical and physical separation methods to isolate and identify materials, how to analyze biological evidence and the criminal use of tools, including impressions from firearms, tool marks, arson, and explosive evidence. *Prerequisite: Biology, Chemistry and Physics*

## **Environmental Science**

Environmental Science is a one –credit course. This integrated course is intended to help students develop a better understanding of the Earth, its components, and human influence on the Earth. *Prerequisite: Biology, Chemistry and Physics*

## **Human Anatomy/Physiology**

The human anatomy and physiology curriculum is designed to continue student investigations that began in grades K-8 and high school biology. This curriculum is extensively performance and laboratory based. It integrates the study of the structures and functions of the human body with a focus on the essential requirements for life. Areas of study include organization of the body; protection, support and movement; providing internal coordination and regulation; processing and transporting; and reproduction, growth and development. Chemistry is integrated throughout anatomy along with discussions of careers related to medicine, research, health-care and modern medical technology. Case studies concerning diseases, disorders and ailments (i.e. real-life applications) should be emphasized. A lab fee of \$10 is requested. *Prerequisite: Biology and Chemistry*

## **AP COURSES, REQUIRES APPLICATION):**

### **AP Language/AP American Lit** (2 Semesters)

This course focuses on content, purpose, and audience as the guide for the students' organization in writing. The course will enable students to become skilled readers of prose written in a variety of periods, disciplines, and rhetorical contexts. The students will compose for a variety of purposes with a clear understanding of writer's purpose, audience expectations, and subjects as well as the way conventions and resources of language contribute to writing effectiveness. Expository, analytical, and argumentative writings support the academic and professional communication required by colleges; personal and reflective writing support the development of writing facility in any context. Students will examine primary and secondary sources to synthesize materials for their writing.

### **AP Literature** (1 Semester)

The course focuses on an intensive study of representative works from various literary genres and periods. The focus is on the complexity and thorough analysis of literary works. The students will explore the social and historical values that works reflect and embody. The textual detail and historical context provide the foundation for interpretation: the experience of literature, the interpretation of literature, and the evaluation of literature. Writing to evaluate a literary work involves making and explaining judgments about its artistry and exploring its underlying social and cultural values through analysis, interpretation, and argument (e.g. expository, analytical, and argumentative essays). The writers will develop stylistic maturity: strong vocabulary, sentence variety, and effective use of rhetoric to maintain voice. *Prerequisite: Advanced British Lit*

### **AP Statistics (1 Semester)**

Follows the College Board syllabus for the Advanced Placement Statistics Examination. Covers four major themes: exploratory analysis, planning a study, probability, and statistical inference.

### **AP Calculus** (2 Semesters)

Follows the College Board syllabus for the Advanced Placement Calculus Examination. Includes properties of functions and graphs, limits and continuity, differential and integral calculus, vector functions, parametric equations, conversions, parametrically defined curves, tangent lines, and sequence and series.

### **AP Chemistry** (2 Semesters)

This course is designed to be the equivalent of the general chemistry course usually taken during the first college year. Students should attain a depth of understanding of fundamentals and a reasonable competence in dealing with chemical problems. AP chemistry students should study topics related to the structure and states of matter (atomic theory, atomic structure, chemical bonding, nuclear chemistry, gases laws, kinetic molecular theory, liquids and solids and solutions), chemical reactions (reaction types, stoichiometry, equilibrium, kinetics, and thermodynamics), and descriptive chemistry (chemical reactivity, products of chemical reactions, relationships in the periodic table, and organic chemistry). To develop the requisite intellectual and laboratory skills, AP Chemistry students need adequate classroom and laboratory time. It is expected that a minimum of 290 minutes per week will be allotted for an AP Chemistry course. Of that time, a minimum of 90 minutes per week, preferably in one session, should be spent in the lab. The AP Chemistry course is designed to be taken after the completion of a first course in high school chemistry.

### **AP Biology** (2 Semesters)

This course is designed to be the equivalent of a two semester college introductory biology course usually taken by biology majors during their first year. The AP Biology course is designed to be taken by students after the successful completion of a first course in high school biology and high school chemistry. It aims to provide students with the conceptual framework, factual knowledge, and analytical skills necessary to deal critically with the rapidly changing science of biology. The topics covered on the course are molecules and cells, heredity and evolution, and organisms and populations. A lab fee of \$15 is requested.

### **AP Physics 1** (1 Semester)

AP Physics 1 is an algebra-based, introductory college-level physics course. Students cultivate their understanding of Physics through inquiry-based investigations as they explore topics such as Newtonian mechanics (including rotational motion); work, energy, and power; mechanical waves and sound; and introductory, simple circuits. A lab fee of \$10 is requested. *Prerequisite: Biology and Chemistry*

### **AP US History** (1 Semester)

Conforms to College Board topics for the Advanced Placement United States History Examination. Covers discovery and settlement, Colonial Society, the American Revolution, Constitution and the New Republic, Age of Jefferson, Nationalism, Sectionalism, Territorial Expansion, Civil War, Reconstruction, Industrialization, Progressive Era, World War I, Depression, New Deal, World War II, The Cold War, through modern times. *Prerequisite: Advanced US History*

### **AP Government** (1 Semester)

Conforms to College Board topics for the Advanced Placement United States Government and Politics Examination. Covers federalism, separation of powers, influences on the formulation and adoption of the Constitution, political beliefs, political parties and elections, interest groups, institutions and policy processes and civil liberties and civil rights.

### **AP Economics** (1 Semester)

Conforms to College Board topics for the Advanced Placement Macroeconomics Examination. Covers basic economic concepts, measurement of economic performance, national income and price determination and international economics and growth.

### **AP Psychology** (1 Semester)

Conforms to College Board topics for the Advanced Placement Introductory Psychology Examination. Covers methods, approaches and the history of psychology as a science, biological bases of behavior, sensation and perception, states of consciousness, learning, cognition, motivation and emotion, developmental psychology, personality, testing and individual differences, abnormal psychology, treatment of psychological disorders and social psychology.

### **AP Human Geography** (1 Semester)

Introduces students to the systematic study of patterns and processes that have shaped human understanding, use, and alteration of Earth's surface. Students learn to employ spatial concepts and landscape analysis to examine socio economic organization and its environmental consequences. By the end of the course, students should be more geoliterate, more engaged in contemporary global issues, and more multicultural in their viewpoints.

### **AP Studio Art** (2 Semesters)

Conforms to College Board topics for the Advanced Placement Studio Art Drawing Portfolio Examination. Requires submission of original works and slides to be evaluated on quality. Provides experiences using different drawing media and approaches; designed for students interested in the practical experiences of art.