

**2019-2020**

**GENESEE CHRISTIAN SCHOOL**  
**Online Course Catalog**



# GCS Online Courses

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## 11<sup>th</sup> & 12<sup>th</sup> Grade Class Offerings:

### Full Year Classes

#### **American Sign Language I**

Two Semesters; Prerequisite: None.

In this course, students are introduced to the fundamental concepts of American Sign Language. Students explore vocabulary, grammar, and conversational skills using basic signing and fingerspelling techniques, and are exposed to activities and exercises that help them understand the culture of deaf and hard-of-hearing people. The goal of Sign Language I B (the 2<sup>nd</sup> semester) is for the student to become a confident signer by mastering American Sign Language grammar and building vocabulary. Lessons incorporate the various important components of signs including handshape, position, movement, palm orientation, and non-manual markers. The student's vocabulary is strengthened by studying special categories such as lexicalized signs, classifiers, and topic-related signs. The student will learn to translate from Standard English into American Sign Language gloss. Videos and interactive websites provide abundant practice. A unit on Deaf Culture and Community provides a good perspective and context for practicing American Sign Language.

#### **American Sign Language II**

Prerequisite: Successful completion of ASL I

ASL II is a continuation of the study of ASL. The first semester of this course includes vocabulary, word concepts, multiple meaning signs and an introduction to Interpreting. During the second semester, students will continue building their vocabulary, with a focus on expressive and receptive skills, to help students gain confidence and clarity in communication. Interaction with members of the Deaf community in both directed and non-directed activities will be required.

#### **AP Computer Science**

This course involves developing the skills to write programs or part of programs to correctly solve specific problems. Students will learn design techniques to make programs understandable, adaptable, and reusable. Prerequisites: Counselor Approval

## **Coding I: Intro to Programming**

Have you ever wanted to create your own web page or wondered how your favorite websites were built? Maybe you want to know more about how computers and technology are affecting the world around us. In Coding I, you will in our lives as well as study the fundamentals of computer science, review hardware and software, and learn how the internet functions. You will also discover how to create and build your own website using HTML and CSS and learn basic and complex commands and sequences as you become familiar with programming languages like JavaScript and Python Programming. This course also covers data collection methods, access rights, protocols, and security. Prerequisites: None

## **Consumer Math**

Consumer Math Two Semesters Prerequisite: Algebra II

In this course, the student will learn that money is lost or gained depending upon the information a consumer has to help him make informed decisions. Retailers, banks, and credit card companies may not provide consumers with all the information they need to make good decisions. By the end of this course, the student will understand the history of money, define fixed costs and discretionary spending, understand the importance of savings, and recognize the dangers of debt. This course will ask the student to look hard at his financial choices including spending patterns, purchasing motivations, and how to make some difficult decisions. In the second semester, students will continue to learn how to make good financial decisions. Retailers, banks, and credit card companies may not provide consumers with all the information they need to make good decisions. By the end of this course, the student will differentiate between secured and unsecured debt, learn how to create a budget, examine a credit report, and discover the best way to increase income and decrease expenses. This course will provide the student with the skills to make good financial decisions.

## **Environmental Science**

Prerequisite: None

Environmental Science offers students the opportunity to understand the concepts fundamental to ecology and measures to prevent damage to the environment. Lessons in the A course review the scientific method, discuss biodiversity, and review earth processes, including the rain and carbon cycles. Students take a detailed look at the various types of pollution and study how to safeguard resources. In the second semester of Environmental Science, students learn about environmental programs and policies, including waste management and conservation. Students study the effect of environmental organizations as well as government agencies charged with protecting the environment. The final unit examines technology and its impact on the environment; topics include energy production, modern agriculture, and public land management.

## **Fashion and Interior Design**

Prerequisite: None

In this course, students explore what it is like to working in the industry by exploring career possibilities and the background needed to pursue them. Students will learn the basics of color and design then test their skills through hands-on projects. In addition, they will

develop the essential communication skills that build success in any business. By the end of the course, students be well on their way to developing the portfolio they need to get their stylishly clad foot in the door of this exciting field.

## **French I**

Prerequisite: None

This course introduces students to basic vocabulary and grammar. Lessons and assignments focus on simple speaking and reading, comprehension, and composition. Students also study the history and culture of French-speaking peoples around the world.

## **French II**

Prerequisite: French I

Students are exposed to more complex reading, writing, and listening coursework. They explore advanced grammatical structure and apply vocabulary and word usage to various situations.

## **German I**

Prerequisite: None

Students use discussions and other activities to learn how to speak, read, write, and understand basic German. Simple grammar, punctuation, and spelling are reinforced with interactive lessons, games, and activities. Students also study German culture and history, as well as the influence of the German language.

## **German II**

Prerequisite: German I

In this course, students are introduced to increasingly complex vocabulary and grammar. There is more emphasis on improving spoken communication and listening comprehension.

## **Personal Finance**

Prerequisite: Algebra I and Geometry.

Math of Personal Finance focuses on real-world financial literacy, personal finance, and business subjects. Students apply what they learned in Algebra I and Geometry to topics including personal income, taxes, checking and savings accounts, credit, loans and payments, car leasing and purchasing, home mortgages, stocks, insurance, and retirement planning. They then extend their investigations using more advanced mathematics, such as systems of equations, when studying cost and profit issues; exponential functions when calculating interest problems.

## **Spanish Fluency**

Students begin their introduction to Spanish with fundamental building blocks in four key areas of world-language Spanish study: listening comprehension, speaking, reading, and writing. The extensive use of authentic materials (video, audio, images or texts) allows for a contextualized and interactive presentation of the vocabulary and the linguistic structures. Students are actively engaged in completing task-based activities individually and

collaboratively while formulating and testing hypotheses about different aspects of the target language. The materials and the activities engage students in such a way that they learn to develop the necessary metacognitive strategies to be successful both in the processing of the authentic input and in negotiating meaning to reach a mutual understanding with other speakers. Cultural information relevant to Hispanic countries and communities and cross-cultural reflections permeate the materials from beginning to end.

Prerequisites: None

## **Web Design I**

Prerequisite: None

This course provides a comprehensive introduction to the essentials of website design. From designing page layouts to coding with CSS and JavaScript, students learn how to create a complete website. Through study of real-world design scenarios and hands-on projects, students create compelling, usable websites using KompoZer, one of the Internet's easiest to-use open-source editing applications.

## **Semester Classes**

### **Anatomy and Physiology**

Prerequisite: Biology

Students learn about anatomical structures and physiology of the human body. Body systems are discussed in terms of how each participates in homeostasis of the body. Students learn about selected major pathologies, including causes, symptoms, diagnostic procedures, and treatments, as well as common changes that occur through the lifespan.

### **AP Macroeconomics**

Students will understand the choices they must make as producers, consumers, investors, and taxpayers. This course provides students with the knowledge and decisionmaking tools necessary for understanding how a society must organize its limited resources to satisfy its unlimited wants.

### **AP Microeconomics**

This course introduces the ways in which people make use of limited resources. Students examine supply and demand, factors of production, the roles of labor and management, the relationship between the environment and the economy, and the impact of government policies on individuals' economic decisions. Students also study the stock market and track the progress of various stocks. This course prepares students for the AP Microeconomics exam.

### **AP U.S. Government and Politics**

Prerequisite: U.S. History.

AP U.S. Government and Politics studies the operations and structure of the U.S. government and the behavior of the electorate and politicians. Students will gain the analytic perspective necessary to critically evaluate political data, hypotheses, concepts, opinions, and processes. Along the way, they'll learn how to gather data about political behavior and develop their own theoretical analysis of American politics. They'll also build the skills they need to examine general propositions about government and politics, and to analyze the specific relationships between political, social, and economic institutions. The equivalent of an introductory college level course, AP U.S. Government and Politics prepares students for the AP exam and for further study in political science, law, education, business, and history.

### **Career in Criminal Justice**

Prerequisite: None

Students explore law enforcement, the courts, and the correctional system. They study what crime is, how crime is measured, and theories of crime causation. They also examine issues and challenges within the criminal justice system and its future directions.

## **Cosmetology**

Interested in a career in cosmetology? This course provides an introduction to the basics of cosmetology. Students will explore career options in the field of cosmetology, learn about the common equipment and technologies used by cosmetologists, and examine the skills and characteristics that make someone a good cosmetologist. Students will also learn more about some of the common techniques used in caring for hair, nails, and skin in salons, spas, and other cosmetology related businesses.

## **Creative Writing**

Prerequisite: None.

For many hundreds of years, literature has been one of the most important human art forms. It allows us to give voice to our emotions, create imaginary worlds, express ideas, and escape the confines of material reality. Through creative writing, we can come to understand ourselves, and our world a little bit better. This course provides students with a solid grounding in the writing process, from finding inspiration to building a basic story to using complicated literary techniques and creating strange hybrid forms of poetic prose and prose poetry. By the end of this course, students will learn how to discover their creative thoughts and turn those ideas into fully realized pieces of creative writing.

## **Cybersecurity I: Foundations**

Two Semesters; Prerequisite: None.

Ever wonder what it's like to be a hacker? Or think about who is trying to steal your passwords while you're shopping online using the free Wi-Fi at your local coffee shop? Can someone be watching your personal, private information? Can anything be kept "secret" online? We depend more and more on the technologies we interact with every day. This creates the need for increased system and network security measures. And, it means we all need to know more about how to protect valuable and vulnerable information. This course introduces you to the tools, technologies, and methods needed to protect online information and addresses how these issues are impacting safety and rights on a global and personal level. Learn what exciting career possibilities await you in the new and high-demand field of cybersecurity. Prerequisites: None

## **Cybersecurity I: Defense Against Threats**

Prerequisite: Successful completion of Cybersecurity I: Foundations

Unmask the cybersecurity threats around you by understanding hackers and identifying weaknesses in your online behavior. Learn to avoid the various types of cyber attacks, including those to your social media accounts, and to predict the potential legal consequences of sharing or accessing information that you do not have rights to. Dig into these crimes in depth by taking a look at cyber forensics and other cybersecurity careers. In a world where such threats have no boundaries, cybersecurity will undoubtedly play an increasingly larger role in our personal and professional lives in the years to come.

Prerequisites: Cybersecurity 1a

## **Digital Photography I & II**

Prerequisite: None

This course covers both digital photography and graphic design. Students learn basic photographic concepts and composition skills, elements of graphic design, digital image editing, and special effects techniques. They also explore the fields of photography, advertising, and illustration as possible career choices.

## **Forensic Science I**

Prerequisite: Biology

Fingerprints. Blood spatter. DNA analysis. The world of law enforcement is increasingly making use of the techniques and knowledge from the sciences to better understand the crimes that are committed and to catch those individuals responsible for the crimes. Forensic science applies scientific knowledge to the criminal justice system. This course focuses on some of the techniques and practices used by forensic scientists during a crime scene investigation (CSI). Starting with how clues and data are recorded and preserved, the student will follow evidence trails until the CSI goes to trial, examining how various elements of the crime scene are analyzed and processed.

## **Forensic Science II: More Secrets of the Dead**

Every time a crime is committed, a virtual trail of incriminating evidence is left behind just waiting to be found and analyzed. In Forensic Science 2: More Secrets of the Dead, you'll learn even more about the powerful science of forensics and how it has changed the face of crime and justice in our world. You will learn some basic scientific principles used in the lab, such as toxicology, material analysis, microscopy, and forensic anthropology and find out how scientists use everything from insects to bones to help them solve crimes. Discover how advanced techniques and methodical processes can lead to catching even the craftiest criminal. The best way to battle crime these days is not with a weapon, but with science.

Prerequisites: Forensic Science I: Secrets of the Dead

## **Game Design I: Introduction to Game Design**

Are you a gamer? Do you enjoy playing video games or coding? Does the idea of creating and designing your own virtual world excite you? If so, this is the course for you! Tap into your creative and technical skills as you learn about the many aspects involved with designing video games. You will learn about video game software and hardware, various gaming platforms, necessary technical skills, troubleshooting and internet safety techniques, and even the history of gaming. And to top it all off, you'll even have the opportunity to create your very own plan for a 2D video game! Turn your hobby into a potential career and go from simply being a player in a virtual world to actually creating one! Prerequisites: None



## **Game Design II: Building a Game**

We live in a technologically-advanced world where virtual reality and video games play a major role. Have you ever thought about designing your own video game? By signing up for Game Design 2 you will learn the skills needed to conceptualize, design, and fully create your very own video game. Explore various video game software and hardware, sharpen your coding skills, learn about game storylines, player progression, and algorithmic decision making. Learn to analyze player goals, actions, rewards, and challenges, among many other game play components. Utilize the 21st century skills of creativity, critical thinking, communication, collaboration, and technical expertise. When you sign up for Game Design 2, you are putting yourself at the forefront of a future in technology!

Prerequisites: Game Design

## **Geography and Society**

Students explore geography skills and principles as they examine several case studies with geographic implications. They gain an understanding of the ways in which geography influences the daily lives of people around the world. This course covers the concepts of physical geography, human and environmental interaction, human systems, and the movement of peoples and their cultures. Prerequisites: None

## **Health Science**

Prerequisite: None.

Will we ever find a cure for cancer? What treatments are best for conditions like diabetes and asthma? How are illnesses like meningitis, tuberculosis, and the measles identified and diagnosed? Health sciences provide the answers to questions such as these. In this course, students will be introduced to the various disciplines within the health sciences, including toxicology, clinical medicine, and biotechnology. They will explore the importance of diagnostics and research in the identification and treatment of diseases. The course presents information and terminology for the health sciences and examines the contributions of different health science areas.

## **Health Science II: Nursing**

Nursing is an in-demand career, perfect for someone looking for a rewarding and challenging vocation in the healthcare sector. With a strong focus on patient care, a nurse must be skilled in communication, promoting wellness, and understanding safety in the workplace. In Health Science: Nursing, you will explore communication and ethics, anatomy and physiology, and the practice of nursing. Learn how to build relationships with individuals, families, and communities and how to develop wellness strategies for your patients. From emergency to rehabilitative care to advances and challenges in the healthcare industry, discover how you can launch a fulfilling career providing care to others.

Prerequisites: None

## **Health Science II: Patient Care and Medical Services**

Are you looking for a job that's challenging, interesting, and rewarding? These three words describe many of the different careers in health care, and Health Sciences II: Patient Care and Medical Services will show you how to become part of this meaningful vocation. Promoting wellness, communicating with patients, and understanding safety in the workplace are just a few of the essential skills you will learn, all the while becoming familiar with some of the more prominent areas in the field, such as emergency care, nursing, infection control, and pediatrics. You'll learn about some of the inherent challenges faced by this age-old profession and how you can become a significant part of the solution.

Prerequisites: Health Sciences I

## **History of the Holocaust**

Prerequisite: None

Holocaust education requires a comprehensive study of not only times, dates, and places, but also the motivation and ideology that allowed these events. In this course, students will study the history of anti-Semitism; the rise of the Nazi party; and the Holocaust, from its beginnings through liberation and the aftermath of the tragedy. The study of the Holocaust is a multidisciplinary one, integrating world history, geography, American history, and civics. Through this in-depth, semester-long study of the Holocaust, high school students will gain an understanding of the ramifications of prejudice and indifference, the potential for government-supported terror, and they will get glimpses of kindness and humanity in the worst of times.

## **Introduction to Business**

One Semester; Prerequisite: None.

Students explore business in global society, learning terminology, concepts, systems, strategies, and current issues. Topics include the business environment, ethics, entrepreneurship and global business, management, marketing, production, information systems, and financial elements.

## **Introduction to Communication**

Prerequisite: None

The student will examine the communication process, including elements of listening and verbal and nonverbal communication. The course also explores how these communication elements operate between self, individuals, and groups. Communication concepts and skills are explored through a variety of methods and activities.

## **Introduction to Criminal Justice**

Students explore law enforcement, the courts, and the correctional system. They study what crime is, how crime is measured, and theories of crime causation. They also examine issues and challenges within the criminal justice system and its future directions.

## **Introduction to Entrepreneurship I**

Prerequisite: None

Students learn the basics to plan and launch their own business by studying successful entrepreneurs and basic economic concepts such as competition, production, setting up a business plan, and more.

## **Introduction to Law**

Prerequisite: None.

Introduction to Law will offer students the opportunity to explore all aspects of the United States legal system, from its fundamental ideas to its guiding principles. The emphasis throughout the course will be to examine the reasons why a society and its members must adhere to the legal system while thinking critically and evaluating tenets of the law. This course serves as the prerequisite for Criminal and Consumer Law.

## **Java Programming I**

Prerequisite None.

The student will explore programming fundamentals, basic problem solving, variables and assignments, math, conditionals, control flow, methods and functional abstraction, objects and data abstraction, inheritance and polymorphism, exception handling, graphical user interfaces, and external libraries. The student will use Sun's Java™ programming language throughout this course.

## **Java Programming II**

Prerequisite: None.

The student will explore programming fundamentals, linked lists, stacks, queues, binary trees, generics and interfaces, an introduction to Big O notation, Java™ collections framework, analyzing complexity and implementing various sorting algorithms, graph applications, and advanced GUIs and graphics

## **Journalism**

Prerequisite: English 11 From examining the guidelines of proper journalism to firsthand practice in writing news, sports, and feature articles, students experience the media writing process and how it applies to today's world of journalism. In Journalism A, students review the guidelines for good journalism and learn the elements of news, feature, and sports writing. The second semester in Journalism reviews the evolution of journalism and its role in today's world. Students learn critical writing (reviews) as well as the steps for crafting editorials. The final unit introduces students to the basics in media design, including topics in multimedia presentation.

## **Leadership and Supervision in Business**

Prerequisite: None

This course examines the roles and responsibilities of supervisors in private, service, and public organizations. The student will gain an understanding of the expanded scope of supervisory responsibilities for business personnel ranging from first-time, first-line supervisors to top-level executives.

## **Principles of Marketing**

Prerequisite: None

Students explore factors influencing how marketing decisions are made, including the impact of marketing decisions on an organization and its customers. They gain a working knowledge of evaluate how the actions of competitors influence marketing decisions in the global marketplace

## **Sports Management**

Prerequisite: None.

This course will introduce you to the fast-growing field of sports management. You will explore topics such as sports marketing, branding, ticket sales, public relations, broadcasting, and breaking into the business of sports management. This course will also discuss the role of sports in society and the importance of an ethical approach to sports management.

## **Veterinary Science**

Prerequisite: None.

As animals play an increasingly important role in our lives, scientists have sought to learn more about their health and well-being. Taking a look at the pets that live in our homes, on our farms, and in zoos and wildlife sanctuaries, this course will examine some of the common diseases and treatments for domestic animals. Toxins, parasites, and infectious diseases impact not only the animals around us, but at times we humans as well! Through veterinary medicine and science, the prevention and treatment of diseases and health issues is studied and applied.