2026-2027

Student Course Catalog

GOA
Student Program

www.globalonlineacademy.org

Welcome to GOA!

We are a nonprofit organization committed to reimagining learning to empower students to thrive in a globally networked society. In partnership with our global consortium of member schools, we design and deliver courses to ignite curiosity and purpose in our students. GOA courses are designed for academic adventurers who are open to new ideas, open to academic challenge, and open to sharing perspectives. Learning alongside a global community of peers and teachers, our students follow their passions to discover more about the world around them and about themselves.

This academic year, we're introducing our largest single-year catalog expansion to date, with new AP® and elective course offerings added across our Learning Pathways. You will find courses in this catalog that will enable you to explore future careers or college majors, study something you've always wanted to know more about, and craft the clearest and most compelling version of your story as a learner and a person. Whatever you learn, we're confident it will be extraordinary.

	COURSE TITLE	TERMS
ART, MEDIA & DESIGN	**AP® Art History**	Yearlong
	Architecture	Semester 1, Semester 2, Summer
	Arts Entrepreneurship	Semester 2
	Computer Science II: Game Design & Development	Semester 2
	Creative Nonfiction Writing	Semester 1, Summer
	Digital Photography	Semester 2, Summer
	Fiction Writing	Semester 2
	Filmmaking	Semester 1
	Graphic Design	Semester 1, Semester 2
	Music Composition & Production	Semester 2

	COURSE TITLE	TERMS
BUSINESS, ECONOMICS & FINANCE	**AP® Macroeconomics**	Yearlong
	AP® Microeconomics	Yearlong
	Arts Entrepreneurship	Semester 2
	Business Problem Solving	Semester 1, Semester 2, Summer
	Capitalism: Past, Present & Future	Semester 2
	Entrepreneurship in a Global Context	Semester 1, Semester 2
	Introduction to Blockchain & Cryptocurrency	Semester 2
	Introduction to Branding & Marketing	Semester 1, Semester 2, Summer
	Introduction to Economics	Semester 1, Semester 2, Summer
	Investing I	Semester 1, Semester 2, Summer
	Investing II	Semester 1, Semester 2
	Personal Finance	Semester 1, Semester 2, Summer

	COURSE TITLE	TERMS
COMPUTER SCIENCE & ENGINEERING	**Computer Science I: Computational Thinking**	Semester 1, Semester 2, Summer
	Computer Science I: Computational Thinking (Middle School)	Semester 2
	Computer Science II: Analyzing Data with Python	Semester 1, Semester 2
	Computer Science II: Game Design & Development	Semester 2
	Cybersecurity	Semester 1, Semester 2
	Introduction to Artificial Intelligence	Semester 1, Semester 2
	Introduction to Blockchain & Cryptocurrency	Semester 2
	Problem Solving with Engineering & Design	Semester 1, Semester 2, Summer
	Vibe Coding: Code, Create & Launch with AI	Summer

	COURSE TITLE	TERMS
GLOBAL STUDIES	**AP® African American Studies**	Yearlong
	AP® Comparative Government & Politics	Yearlong
	AP® Human Geography	Yearlong
	Applying Philosophy to Global Issues	Semester 1
	Capitalism: Past, Present & Future	Semester 2
	Climate Action & Sustainability	Semester 1
	Discourse Across Difference	Semester 2
	Entrepreneurship in a Global Context	Semester 1, Semester 2
	Genocide & Human Rights	Semester 1, Summer
	Global Health	Semester 1
	International Relations	Semester 1, Semester 2, Summer

	COURSE TITLE	TERMS
HEALTH SCIENCES	**Anatomy & Physiology**	Semester 1
	Biochemistry: Medicine, Drugs & Addiction	Semester 2
	Bioethics	Semester 1, Semester 2, Summer
	Global Health	Semester 1
	Health & Fitness	Semester 1, Summer
	Introduction to Organic Chemistry I	Semester 1
	Introduction to Organic Chemistry II	Semester 2
	Medical Problem Solving I	Semester 1, Semester 2, Summer
	Medical Problem Solving II	Semester 1, Semester 2

	COURSE TITLE	TERMS
JUSTICE, ETHICS & HUMAN RIGHTS	**Applying Philosophy to Global Issues**	Semester 1
	Bioethics	Semester 1, Semester 2, Summer
	Discourse Across Difference	Semester 2
	Genocide & Human Rights	Semester 1, Summer
	Introduction to Legal Thinking	Semester 1, Semester 2, Summer
	Perspectives on Gender & Culture	Semester 2
	Prisons & Criminal Justice Systems	Semester 1, Semester 2
	Race, Culture & Community	Semester 1

	COURSE TITLE	TERMS
MATHEMATICS & QUANTITATIVE REASONING	**Algebra I Prep for Success**	Summer
	Algebra II	Summer
	Data Visualization	Semester 1
	Game Theory	Semester 1, Semester 2
	Geometry	Summer
	Linear Algebra	Semester 1, Semester 2
	Multivariable Calculus I: Vector and Differential Calculus	Semester 1
	Multivariable Calculus II: : Integral Calculus	Semester 2
	Number Theory	Semester 1
	Precalculus	Summer
	Problem Solving with Engineering & Design	Semester 1, Semester 2, Summer

	COURSE TITLE	TERMS
PSYCHOLOGY & NEUROSCIENCE	**Abnormal Psychology**	Semester 1, Semester 2, Summer
	AP® Psychology	Yearlong
	Developmental Psychology	Semester 1, Semester 2
	Introduction to Psychology	Semester 1, Semester 2, Summer
	Neuropsychology	Semester 1, Semester 2
	Positive Psychology	Semester 1
	Social Psychology	Semester 1, Semester 2

	COURSE TITLE	TERMS
WORLD LANGUAGE & CULTURE	American Sign Language Through Culture I	Yearlong
	Arabic Language Through Culture I	Yearlong
	Advanced Arabic Language Seminar	Yearlong
	Japanese Language Through Culture I–III	Yearlong

View GOA's Course Descriptions

- GOA is accredited by the New England Association of Schools and Colleges (NEASC) and by the Western Association of Schools and Colleges (WASC).
- GOA is a UC-approved online course publisher. Many GOA courses are NCAA-approved, as indicated in the course description. A complete list is also available upon request.

Students who take three or more GOA courses across our catalog will earn a Global Learning Certification, or they can pursue a Pathway Certification in one of our nine learning pathways to demonstrate a depth of interest and expertise.

ABNORMAL PSYCHOLOGY

Discover the Complexities of the Human Mind: Ever wondered why society views certain behaviors "abnormal"? As you learn about Western abnormal psychology, you'll explore the complex forces behind human behavior by studying conditions like anxiety, depression, eating disorders, and schizophrenia. Through engaging readings, videos, thought-provoking discussions, and a student-led project centered on your local community, you'll dive into the symptoms, diagnoses, and responses to these disorders. You'll also examine how mental health is influenced by cultural differences and global perspectives, gaining insight into the stigma surrounding psychological disorders.

Why Take This Course?

You'll walk away knowing more about how the human brain can take unexpected paths and how challenging it can be to define "normal." You'll also develop a deeper empathy for those facing mental health challenges.

Prerequisite: *This course contains content that may not be appropriate for students younger than 15 years old.*

NCAA-Approved

Pathway: Psychology & Neuroscience

ALGEBRA I PREP FOR SUCCESS

Lay the Foundation for High School Math: Ready to strengthen your math skills before the school year begins? In this seven-week foundational Algebra I summer course, you'll explore how mathematical ideas connect and apply algebraic thinking to real-world problems while working with linear equations, inequalities, functions, systems of equations, and introductory polynomial operations.

Why Take This Course?

Designed as the bridge between middle school math and high school algebra, this course will help you strengthen foundational skills, reinforce key algebraic concepts, and gain confidence before entering the academic year. You'll strengthen your logical reasoning and problem-solving skills, setting you up for success in Algebra I and beyond.

Note: *This course functions as a preparatory course rather than a full Algebra I replacement. Students should expect to dedicate approximately 10–12 hours per week to instruction and practice.*

Prerequisite: *Pre-Algebra or equivalent*

Pathway: Mathematics & Quantitative Reasoning

ALGEBRA II

Fast-Track Your Math Mastery: Ready to level up in math? This accelerated seven-week Algebra II summer course condenses a full year of course material into an intensive, 7-week learning experience. Building on the foundations of Algebra I, you'll strengthen your fluency with equations, inequalities, and functions while exploring quadratics, polynomials, rational expressions, exponentials, and logarithms. Expect to dedicate 15-20 hours per week as you connect algebraic, graphical, and numerical representations to deepen conceptual understanding and apply your skills to real-world problem-solving. Through guided exploration and challenging applications, you'll learn how different types of functions model real situations, analyzing characteristics such as domain, range, intercepts, asymptotes, and end behavior. Core topics include factoring and operations with polynomials, solving quadratic and higher-order equations, simplifying radicals and complex numbers, and applying exponential and logarithmic properties.

Why Take This Course?

You'll refine critical reasoning and analytical thinking skills that will help you find success in precalculus, calculus, and beyond. Designed for motivated learners seeking a rigorous and engaging challenge, this course helps you build confidence, mastery, and momentum for advanced high school math studies.

Note: *Upon request, the Algebra II teachers will recommend to a student's home institution whether the student has mastered the key competencies of Algebra II at the end of the term.*

Prerequisite: *Successful completion of Algebra I (or equivalent) and Geometry (or significant Geometry content exposure) is strongly recommended. Students should be comfortable with linear functions and graphing, algebraic manipulation, systems of equations, and basic function concepts. Entry into this intensive course implies readiness for a fast-paced, high- engagement environment.*

NCAA-Approved

Pathway: Mathematics & Quantitative Reasoning

AMERICAN SIGN LANGUAGE THROUGH CULTURE I

Immerse Yourself in ASL and Deaf Culture: In this course, you'll build expressive and receptive American Sign Language (ASL) skills while gaining a deeper understanding of Deaf culture. Designed for beginners, the course emphasizes visual engagement through storytelling, conversation, and cultural exploration. You'll develop vocabulary, grammar, and conversational techniques by practicing fingerspelling, non-manual signals (facial expressions and body language), classifiers, spatial grammar, and the use of signing space. Along the way, you'll explore Deaf history, community values, and cultural norms to understand ASL as both a language and a reflection of a vibrant cultural identity.

Why Take This Course?

If you're interested in language and communication through a cultural lens, this course offers a fully immersive introduction to ASL and the Deaf community. Through interactive signing, real-time conversations, and project-based activities, you'll connect language learning with vibrant Deaf culture—deepening your understanding of communication, identity, and human connection.

NCAA-Approved

Pathway: World Language & Culture

ANATOMY & PHYSIOLOGY

Uncover How the Human Body Works: Have you ever wondered how your heart keeps beating, how your lungs absorb oxygen, or how your brain sends signals that allow you to move and think? In this course, you'll explore the body's major systems—skeletal, muscular, nervous, cardiovascular,

respiratory, digestive, urinary, and reproductive—and discover how they work together to sustain life and health. Along the way, you'll connect your learning to real-world health issues such as sports injuries, asthma, strokes, and diabetes.

Why Take This Course?

If you're curious about health, medicine, or biology, this course offers valuable insights into how the body functions and what happens when things go wrong. You'll gain a deeper understanding of the organs and systems that keep you alive, knowledge that can inspire future studies in science, healthcare, or athletics.

NCAA-Approved

Pathway: Health Science

AP® AFRICAN AMERICAN STUDIES

Explore the African American Experience: What stories emerge when we study Black communities in the U.S. within the broader history of Africa and the African diaspora? In this interdisciplinary course, you'll examine culture, history, literature, the arts, and social sciences through diverse African American voices and perspectives. Fully aligned with College Board requirements, the course will strengthen your skills in analyzing sources, applying concepts, and making evidence-based arguments while preparing you for the AP® Exam. You'll investigate topics ranging from early African kingdoms to present-day successes and challenges, analyzing literary works, political texts, visual culture, and data sets to understand essential concepts and pivotal movements in the Black experience. Along the way, you'll consider how identities such as race, class, and gender intersect to shape perspectives and experiences within African American communities.

Why Take This Course?

If you're interested in history, culture, or social justice, this course offers powerful ways to understand African American experiences in both national and global contexts. You'll strengthen your ability to interpret primary and secondary sources, build arguments, and think critically across disciplines while also practicing how to evaluate credibility, recognize bias, and connect scholarship to issues that matter today.

NCAA-Approved

Pathway: Global Studies

AP® ART HISTORY

Uncover the Story of Humanity Through Art: From ancient cave paintings to contemporary genre-spanning installations, art reveals how people across time and cultures have seen themselves and their world. Through this course, you'll take a global journey through 250 works spanning different eras, regions, and styles, while preparing for the AP® Exam and meeting all College Board requirements. You'll examine how artists' use of materials, response to audiences, and cross-cultural influences shape artistic expression. You'll also trace continuity and change across traditions and media, interpret works in their broader cultural context, and consider diverse perspectives on what art means—all while sharpening your skills in art historical thinking, including visual and contextual analysis, comparison, attribution, interpretation, and argumentation.

Why Take This Course?

Perfect for students interested in history, culture, or the humanities, this course will help you see the world through the lens of art and understand why art history matters. By deeply engaging with such a kaleidoscopic range of works, you'll ultimately be able to articulate the significance of art history in shaping how humans understand themselves and the world. As you learn to decode the meaning behind influential works and connect art's past to its impact on human identity today, you'll also strengthen your critical thinking and writing skills that will serve you well in any field.

NCAA-Approved

Pathway: Art, Media & Design

AP® COMPARATIVE GOVERNMENT & POLITICS

Examine Institutional Power Around the World: What can we learn about power, people, and institutions when we compare governments around the world? In this course, you'll study political systems, processes, and real-world case studies in six countries—China, Iran, Mexico, Nigeria, Russia, and the United Kingdom. Fully aligned with College Board requirements, the course builds your skills in applying concepts, interpreting data, comparing systems, simulating institutional debate, and making evidence-based arguments, all while preparing you for the AP® Exam. You'll investigate states and regimes, political institutions, culture and participation, electoral systems and parties, and how countries respond to change and development.

Why Take This Course?

If you're interested in politics, law, or global affairs, this course will help you use the perspectives of political scientists while learning to analyze and interpret politics across different global contexts. You'll strengthen your critical thinking and communication skills while building a deeper understanding of leadership, power, and change.

NCAA-Approved

Pathway: Global Studies

AP® HUMAN GEOGRAPHY

Explore How People Shape the World: How do humans organize the world around them, build communities, and interact with their environments? In this course, you'll explore the patterns and processes that define life on Earth—from population growth and migration to cultural exchange, political boundaries, agriculture, urban development, and globalization. Fully aligned with College Board requirements, the course helps you develop geographic thinking through data analysis, map interpretation, and spatial reasoning while preparing for the AP® Exam. Across seven major units—thinking geographically, population and migration, culture, politics, agriculture and rural land use, cities and urban land use, and industrial and economic development—you'll interpret maps, satellite imagery, and real-world data to connect geographic concepts to contemporary challenges such as urban growth, climate change, and migration.

Why Take This Course?

If you're fascinated by how people, places, and power connect, this course offers a dynamic way to understand the forces that shape our modern world. You'll learn to

analyze spatial patterns, interpret global trends, and explain how human choices create and transform both local communities and the planet we share.

NCAA-Approved

Pathway: Global Studies

AP® MACROECONOMICS

Analyze National and Global Economies: What happens when governments change interest rates, when inflation rises, or when global trade shifts? In this course, you'll explore how entire economic systems work at both the national and international levels. Fully aligned with the College Board requirements, you'll study big topics like economic performance, business cycles, and the impact of fiscal, monetary, and trade policies, all while preparing for the AP® Exam. You'll learn to analyze data, interpret models, and evaluate governmental policies and to apply these skills to real-world issues such as inflation, unemployment, and international trade.

Why Take This Course?

Whether you're headed into economics or international relations or you're curious about politics and business, macroeconomics helps you make sense of it all. You'll learn to weigh different perspectives, think critically about tradeoffs, and practice making and defending your own evidence-based arguments, ultimately building strong cases for policy solutions.

NCAA-Approved

Pathway: Business, Economics & Finance

AP® MICROECONOMICS

Understand Everyday Economics: Why are movie tickets cheaper on Tuesdays? Why do some products seem overpriced? And when should governments step in to fix markets? In this course, you'll explore decision-making at the level of individuals, businesses, and governments using graphs, models, and economic indicators. Fully aligned with College Board requirements, the course covers supply and demand, costs and profits, competition and markets, wages and income, and the challenges of market failures like pollution and inequality. Along the way, you'll build skills in applying concepts, interpreting data, analyzing models, and making evidence-based arguments as you step into the role of an economist to explain, critique, and problem-solve these everyday puzzles—all while preparing for the AP® Exam.

Why Take This Course?

If you've ever wondered why prices change, why businesses succeed or fail, or how policies shape markets, microeconomics gives you the tools to make sense of it. You'll apply economic reasoning to solve, explain, and critique economic behavior in real-world contexts. By the end of the course, you won't just understand how markets work—you'll be able to think critically about choices, tradeoffs, and policies that influence daily life.

NCAA-Approved

Pathway: Business, Economics & Finance

AP® PSYCHOLOGY

Dive Into How Minds Work: What does it mean to study the mind and behavior through different lenses? In this course, you'll explore biological, cognitive, and sociocultural perspectives while preparing for the AP® Exam. Fully aligned with College Board requirements, the course covers research methods and ethics, the biological bases of behavior, cognition, development and learning, social and personality psychology, and mental and physical health. You'll practice the methods and perspectives of psychologists by redesigning studies, analyzing data, and applying theories to case studies.

Why Take This Course?

If you're curious about why people think, feel, and act the way they do, this course offers a deep exploration of the science of mind and behavior. You'll strengthen your ability to apply concepts, design and critique research, interpret data, and make evidence-based arguments—skills that sharpen your critical and scientific thinking and help you better understand both science and everyday life.

NCAA-Approved

Pathway: Psychology & Neuroscience

APPLYING PHILOSOPHY TO GLOBAL ISSUES

Think Like a Philosopher: What would Socrates, Confucius, and Kant have to say about today's global issues? In this applied philosophy course, you'll uncover how great thinkers from many traditions and centuries tackled social and political challenges across the world—both successfully and unsuccessfully. You will challenge your perspective through an interdisciplinary approach, pulling in concepts, models, and methods related to history, journalism, literary criticism, and media studies.

Why Take This Course?

You'll do more than learn about what philosophers have written. You'll apply ideas to develop your own personal philosophy and apply it to analyze today's most pressing issues. By the end of the course, you'll be ready to spark positive change, whether in your community or on a global scale.

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Pathways: Global Studies; Justice, Ethics & Human Rights

ARABIC LANGUAGE THROUGH CULTURE I

This course (or its equivalent) is a prerequisite to Advanced Arabic Language Seminar at GOA.

Journey Through Language and Culture: Immerse yourself in Modern Standard Arabic (MSA) and spoken dialects from the Levant, Egypt, and North Africa while exploring the rich cultural landscapes of the Arabic-speaking world. You will start with the basics of the Arabic writing system and progress to spontaneous conversations on topics like family, food, preferences, history, music, social media, and environment. You'll master everyday expressions, build listening and reading skills, and learn to form structured sentences—all with a focus on real-life conversation.

Why Take This Course?

Whether you're interested in international business, travel, or just fascinated by one of the world's most influential languages, this course will connect you to the heart of Arabic culture and language.

NCAA-Approved

Pathway: World Language & Culture

ADVANCED ARABIC LANGUAGE SEMINAR

Expand Your Conversation and Perspective: Ready to take your Arabic skills further? Building on your Arabic foundation, this yearlong course guides you into more complex reading and speaking, allowing you to tell stories and even write full paragraphs in Arabic. Focusing on Modern Standard Arabic (MSA) and spoken dialects of Levant, Egypt, and North Africa, you'll immerse yourself in even more real-life conversations and interactive group projects that cover new cultural topics such as ordering food, discussing travel and the weather, and sharing your goals for the future.

Why Take This Course?

This course is your next step toward fluency and a deeper understanding of Arabic-speaking cultures. By the end of this course, you'll be able to tell stories, describe the world around you, and hold meaningful conversations—connecting with peers from around the world.

Prerequisite: *Arabic Language Through Culture I or permission from the instructor. Students at the level of Advanced Arabic have typically demonstrated novice proficiency, where they can communicate in spontaneous spoken conversations on familiar topics, including food, weather, and hobbies, using a variety of practiced or memorized words, phrases, simple sentences, and questions.*

NCAA-Approved

Pathway: World Language & Culture

ARCHITECTURE

Design the Future, Shape the World: This is your chance to think like an architect, transforming abstract concepts into tangible spaces with other students from around the world. In this hands-on course, you'll master the fundamentals of architectural design—from exploring building materials and analyzing structures to creating 3D models and developing spatial awareness. Discover how architecture drives the evolution of contemporary styles and shapes our culture as you design innovative architectural solutions for real-world challenges. Your journey will end with a final project that showcases your unique vision and design process.

Why Take This Course?

Whether you're curious about architecture or see yourself as a future designer, this course will push you to think creatively and bring your ideas to life. By the end, you'll have a portfolio-ready project and the foundational skills to explore a future in design and architecture.

Pathway: Art, Media & Design

ARTS ENTREPRENEURSHIP

Create Your Future in the Arts: Ready to turn your creativity and passion for the arts into a thriving career? This course will help you develop real-world strategies for building a personal brand, networking, and launching a career in fields like design, music, and filmmaking. You'll learn directly from industry insiders, analyze successful (and not-so-successful) artistic ventures, and gain practical skills to kickstart your own arts business.

Why Take This Course?

Whether you dream of starting your own studio or becoming a creative entrepreneur, this course gives you the tools and insights to turn your artistic passion into a sustainable career.

Pathways: Art, Media & Design; Business, Economics & Finance

BIOCHEMISTRY: MEDICINE, DRUGS & ADDICTION

Unlock Medicine and Drug Design: Discover the fascinating science behind medicine and drug interactions, exploring how drugs impact the human body at the molecular level. You'll dive into the chemistry and biology behind drug design, effectiveness, and safety; learn how drugs interact with molecules, such as receptors and enzymes, to create therapeutic effects; and tackle complex topics like tolerance, addiction, and withdrawal. You'll also investigate the processes of drug testing, legalization, and regulation, gaining a well-rounded view of the pharmaceutical world.

Why Take This Course?

A must for aspiring healthcare professionals, pharmacists, or biochemists, this course will give you a deep understanding of drug mechanisms and development. You'll walk away with insights into the science of healing and the effects of drugs on the body, setting you up for future studies and a career in healthcare and the sciences.

Prerequisite: *Students enrolling in this course should have taken or should be concurrently enrolled in Chemistry.*

NCAA-Approved

Pathway: Health Science

BIOETHICS

Navigate the Ethical Questions of Medicine and Science: How do we know what's right and wrong in medicine, public health, and life sciences? In this course, you'll explore some of today's most pressing ethical dilemmas that significantly impact the medical field. Through engaging debates on topics like the "right to die," vaccination policies, organ transplants, genetic technology, and animal research, you'll learn how to discuss differing views with respect. Innovative research projects and interactive discussions will help you develop critical-reasoning skills and think deeply about how we balance individual rights, societal needs, and scientific advancement. The course ends with a deep dive into a bioethical issue of your choosing, helping you understand the crucial role bioethics plays in shaping the future.

Why Take This Course?

If ethical questions in health and science spark your curiosity, this course will sharpen your critical thinking and broaden your perspective on complex issues. You'll gain the skills to navigate real-world challenges and form your own stance on pivotal bioethical debates—an invaluable foundation for future studies and careers in medicine, science, or ethics.

Pathways: Health Science; Justice, Ethics & Human Rights

BUSINESS PROBLEM SOLVING

Tackle Real-World Challenges in Business: How does climate change impact supply chains? Are tariffs a threat or an opportunity? Is your company's cybersecurity strong enough? In today's fast-paced business landscape, problem-solving is essential. In this course, you'll analyze relevant, real world case studies from global corporations and innovative startups, and you'll collaborate with peers to develop creative solutions to challenges in operations, marketing, finance, sustainability, and more.

Why Take This Course?

If you see yourself as a future entrepreneur, CEO, or business consultant, this course is a valuable opportunity to build practical problem-solving and critical thinking skills, building

entrepreneurial skills along the way. By the end, you'll have a deep understanding of the pressing issues facing companies today and be prepared for a future in the dynamic world of business and leadership.

Pathway: Business, Economics & Finance

CAPITALISM: PAST, PRESENT & FUTURE

Understand the Economic System That Shapes Our World: Is capitalism the source of society's problems or one of the grandest achievements in human history? In this thought-provoking course, you'll examine perspectives from both sides, exploring capitalism's components and impact on social, political, and economic systems worldwide. Through engaging case studies and historical examples, you'll dive into how capitalism has evolved and influenced societies.

Why Take This Course?

If you're interested in understanding the complexities of economic systems, this course will help you build your own ideas about capitalism. You'll apply your insights in a final project and presentation, proposing solutions to real-world issues—an important experience for anyone interested in economics, politics, or global studies.

NCAA-Approved

Pathways: Business, Economics & Finance; Global Studies

CLIMATE ACTION & SUSTAINABILITY

Build a Just and Sustainable Future: Explore the critical issues of climate change and its wide-reaching impacts on communities and ecosystems. In this course, you'll examine essential topics like climate justice, agriculture, wildfires, renewable energy, sea level rise, and invasive species—all through the lenses of equity and sustainability. Engage in hands-on projects to understand the causes and effects of climate change, dive into public policy and equity debates, and analyze how these issues shape the experiences of diverse populations around the world. Your journey will finish with a student-led project, creating an action plan for change in your community.

Why Take This Course?

If you're passionate about making a difference, this course will provide you with the knowledge and tools to tackle climate challenges through well-informed activism. By the end, you'll be empowered to advocate for a sustainable and equitable future.

Note: *This course is a reimagined, redesigned, retitled version of the course that was called Climate Change & Global Inequality through the 2023-2024 school year. Students who have already taken Climate Change & Global Inequality should consider choosing a different course.*

NCAA-Approved

Pathway: Global Studies

COMPUTER SCIENCE I: COMPUTATIONAL THINKING

This course (or its equivalent) is a prerequisite to all Computer Science II classes at GOA.

Problem-Solve in a Digital World: Unlock the power of solving problems, designing systems, and understanding human behavior in this beginner-friendly course. You'll learn to think like a computer scientist,a developing skills that go beyond programming and apply to across fields. Starting with the basics of computer science, you'll learn how to read code and pseudocode as well as develop strategies for debugging programs—all without prior programming experience.

Why Take This Course?

Gain a foundational understanding of computer science and its real-world applications for both programmers and non-programmers. By the end, you'll have essential computational thinking skills to approach complex problems with clarity and strategy, setting you up for success in future computer science courses and beyond.

Note: *During Semester 2 of 2026-2027, GOA will offer one section of this course that has been designed and staffed specifically for students in grades 6-8. On the registration page, students and Site Directors should look for the offering that is specific to their age group.*

NCAA-Approved

Pathway: Computer Science & Engineering

COMPUTER SCIENCE II: ANALYZING DATA WITH PYTHON

Turn Data Into Insight: Gain hands-on experience with the Python programming language as you learn to read, analyze, and visualize real-world data. Using Python's powerful data structures and clear syntax, you'll work with large, messy datasets—just like those in scientific computing. Discover how Python makes data analysis accessible and see firsthand why it's one of the most popular tools in fields like biology, engineering, and statistics.

Why Take This Course?

If you're interested in data-driven fields, this course will give you essential Python skills to tackle complex datasets. By the end, you'll be able to turn raw data into meaningful insights, preparing you for further studies in scientific research, data science, and beyond.

Prerequisite: *Computer Science I: Computational Thinking or its equivalent*

NCAA-Approved

Pathway: Computer Science & Engineering

COMPUTER SCIENCE II: GAME DESIGN & DEVELOPMENT

Create Your Own Games: Do you love to play video games? Ever wanted to make your own? Explore what makes a game exciting and how game developers create games from scratch. In this immersive and hands-on course, you'll start creating your own games from the ground up by tackling design challenges and refining the game's theme and structure. Gain experience with Unity, a professional game development tool, as you build games using graphics, sounds, and effects and control events and behaviors with the C# programming language.

Why Take This Course?

For anyone interested in game development, this course will equip you with the skills to turn your ideas into playable games. Collaborate with teammates across the world to brainstorm, design, and develop games in response to unique challenges, building your skills in communication, project management, and creative problem-solving. By the end, you'll have a portfolio of game projects and a strong foundation for future studies in game design and coding.

Prerequisite: *Computer Science I: Computational Thinking or its equivalent*

NCAA-Approved

Pathways: Art, Media & Design; Computer Science & Engineering

CREATIVE NONFICTION WRITING

Craft True, Engaging Stories: Are you a storyteller at heart? In this course, you'll learn how to transform real experiences into captivating narratives, all while strengthening core writing skills. You'll explore diverse forms of creative nonfiction—personal narratives, opinion pieces, profiles, and more. Along the way, you'll create a library of inspiring texts, consider publishing opportunities, and establish sustainable writing habits. Connect with a global community through video chats and online discussions, where you'll participate in a supportive workshop model, receive valuable feedback, and grow as a writer in today's exciting nonfiction genre.

Why Take This Course?

Emphasizing process over product, you'll develop your unique writer's voice, style, and storytelling skills in a collaborative environment. This is a course that can help you refine your writing process so that you can use those skills in any subject. Ideal for aspiring writers, journalists, or content creators, you'll learn to transform everyday life into powerful stories.

NCAA-Approved

Pathway: Art, Media & Design

CYBERSECURITY

Safeguard the Digital World: Cybercrime is on the rise, and this is your chance to be part of the solution. Go beyond the basics of cybersecurity, as you explore the inner workings of computer components, network design, DNS, TCP/IP, and how cybercriminals exploit both technology and human behavior to breach systems. Examine ciphers, encryption, data security, and malware anatomy, while also considering the complex balance between privacy and tracking. You'll emerge with the expertise to defend both personal and organizational data, equipped with knowledge in data recovery, enterprise security, and the latest trends in cybersecurity.

Why Take This Course?

If you're driven to protect the digital world, this course will provide you with the critical skills needed to navigate and secure the digital landscape, preparing you for a future in cybersecurity or simply empowering you to safeguard our interconnected world.

Note: *There is no computer science prerequisite for this course, though students with some background will certainly find avenues to flex their knowledge.*

Pathway: Computer Science & Engineering

DATA VISUALIZATION

Turn Numbers Into Narratives: In a world flooded with data, visualizations cut through the noise to reveal meaning. This course teaches you to collect, organize, interpret, and effectively communicate massive amounts of information. You'll master data wrangling in spreadsheets, harness the power of charts, and learn to spot both effective and misleading visuals. Using principles from information graphics, visual art, graphic design, and cognitive science, you'll create your own compelling visualizations using tools like Datawrapper, Tableau Public, and Python.

Why Take This Course?

If you want to transform raw data into powerful insights, this course will help you develop the essential skills needed to create clear, informative visuals. Perfect for aspiring data analysts, journalists, or anyone looking to communicate statistics with impact, you'll emerge ready to use data to inform, persuade, and drive decisions.

Note: *There is no computer science, math, or statistics prerequisite for this course, though students with backgrounds in those areas will certainly find avenues to flex their knowledge.*

NCAA-Approved

Pathway: Mathematics & Quantitative Reasoning

DEVELOPMENTAL PSYCHOLOGY

Understand the Journey of Human Growth: Why do we think, learn, and behave the way we do? In just a few years, humans transform from infants to individuals capable of complex thought, communication, and moral reasoning. Through engaging readings, observations, case studies, and hands-on activities, this course will introduce you to the fascinating study of human development, focusing on significant physical, emotional, cognitive, and social changes from birth through adolescence. You'll explore key questions like heredity vs. environment, stability vs. change, and continuity vs. discrete stages of development.

Why Take This Course?

If you're captivated by how people learn, grow, and evolve, this course offers an in-depth look at how we become who we are. Perfect for aspiring educators, psychologists, or anyone intrigued by human behavior, you'll gain valuable insights into language acquisition, learning, and personality development from both Western and non-Western perspectives.

NCAA-Approved

Pathway: Psychology & Neuroscience

DIGITAL PHOTOGRAPHY

Tell Stories Through the Lens: Are you ready to see the world through a new lens? In this digital photography course, you'll learn to capture moments, places, and people in a way that tells a story only you can tell. From exploring your neighborhood to capturing diverse cultural perspectives, you'll create powerful images that showcase your creativity and refine your unique style. Along the way, you'll study the building blocks of photography, including composition and the exposure triangle, while experimenting with editing tools to bring your vision to life. You will examine the work of great photographers and experiment with techniques to turn ordinary scenes into extraordinary stories.

Why Take This Course?

Through discussions, critiques, and hands-on projects, you'll explore big questions like: What makes a photo unforgettable? How can an image communicate emotion? And how can photography address real-world issues? Whether you're just starting out or have experience behind the camera, this course will help you build a compelling portfolio that reflects your identity as a storyteller and artist. It's also a great foundation for further study in visual arts or careers where impactful imagery is key to communication.

Required Materials:

- *Students must have access to a camera that allows for changing shutter speed and f-stop (lens aperture). Cannot be a cell phone. It does not need to be an interchangeable lens camera.*
- *Photo editing software of your choice (Adobe Lightroom, Photoshop, Pixlr X, RawTherapee).*
- *Google Photo or other photo storage/sharing app of your choice.*

Pathway: Art, Media & Design

DISCOURSE ACROSS DIFFERENCE

Navigate Today's Complex Issues: How do you engage in conversations when you don't agree? In today's interconnected world, complex social, political, and ethical issues demand thoughtful dialogue. This course will equip you with the skills to engage thoughtfully and effectively through structured conversations, debates, rhetorical analysis, and guided reflection. You'll learn to navigate challenging discussions and foster understanding across differences on pressing topics like technology's impact on privacy, environmental sustainability, and social justice reform.

Why Take This Course?

If you're interested in developing your voice in diverse or divided spaces, this course will help you engage in meaningful dialogues, even when faced with opposing viewpoints. By learning to evaluate different perspectives, ask insightful questions, and find common ground, you'll be prepared for responsible civic participation and thrive in our global, interconnected society.

NCAA-Approved

Pathways: Global Studies; Justice, Ethics & Human Rights

ENTREPRENEURSHIP IN A GLOBAL CONTEXT

Turn Your Ideas Into Global Impact: How does an entrepreneur think? What skills are essential to stay competitive and relevant in today's fast-paced market? This course will push you to step beyond the classroom and into real-world environments to understand how global markets work. Collaborating with peers worldwide, you'll dive into essential topics like customer development, value propositions, brand strategy, and funding sources. Using the business model canvas, you'll build a viable framework and ultimately develop, refine, and present your own online startup pitch.

Why Take This Course?

This course provides a hands-on approach to building a business, teaching you to apply innovative, design-driven strategies and creative problem-solving skills. With real-world experiences in customer research, product design, and interviews with entrepreneurs, you'll gain the tools to turn an idea into a startup ready for the dynamic business world.

NCAA-Approved

Pathways: Business, Economics & Finance; Global Studies

FICTION WRITING

Find Your Voice in Fiction: Love telling stories? In this course, you'll dive into the art of fiction writing, focusing on short stories, character development, and intricate plot-building. You will gain hands-on experience with the workshop model, learning how to provide and receive constructive peer feedback and discuss each other's work in a supportive online setting. You'll encounter masterful works by authors from around the world. Through engaging in discussions and exchanging feedback, you will develop your unique writing style and sharpen your skills as both a writer and a critic.

Why Take This Course?

Whether you dream of becoming a novelist or screenwriter, or you simply enjoy storytelling, this course connects you with peers from diverse backgrounds and encourages you to share stories that capture both shared and unique life experiences. By the end, you'll have honed your voice and acquired the tools to craft captivating stories, opening doors for further creative exploration.

NCAA-Approved

Pathway: Art, Media & Design

FILMMAKING

Express Your Vision: If you've ever dreamed of being behind the camera and bringing your stories to life, this course will help you master the technical and creative skills you need for visual storytelling. You'll learn from inspiring short films, applying new techniques to create your own short experimental pieces. This practical and collaborative environment will provide opportunities to screen your work, give and receive constructive feedback, and develop critical-thinking skills to refine future projects.

Why Take This Course?

This hands-on course is perfect for aspiring filmmakers and creative problem-solvers eager to elevate their craft. By the end, you'll walk away with a portfolio of experimental films and develop your unique style as a filmmaker, ready to bring your stories to life and captivate audiences.

Required Materials:

- *Device to capture video (HD camera or newer iPhone or Android phone)*
- *Tripod or other stabilizing equipment (optional, highly recommended)*
- *Video editing software (iMovie, Premiere Pro, etc.)*

Pathway: Art, Media & Design

GAME THEORY

Solve Real-World Problems Like a Mathematician: What can mathematical models teach us about decision-making? This course will show you how dilemmas and conflicts—ranging from international diplomacy to sports scheduling—can be approached as mathematical games. You'll analyze real-world events in fields like political science, anthropology, philosophy, economics, and even popular culture through two-person zero-sum games, two-person non-zero-sum games, sequential games, multiplayer games, linear optimization, and voting theory.

Why Take This Course?

If you love math, logic, or strategic thinking, this course will give you the tools to analyze and solve complex problems using mathematical models. It's perfect for future studies in mathematics, economics, or any field where strategic decision-making is key, giving you a deeper understanding of how to approach intricate challenges logically and effectively.

NCAA-Approved

Pathway: Mathematics & Quantitative Reasoning

GENOCIDE & HUMAN RIGHTS

Learn From the Past to Protect the Future: Why does genocide happen, and how can societies prevent it? In this course, you'll explore some of the most significant tragedies of the 20th century, including the Holocaust and the Armenian, Cambodian, and Rwandan genocides. You'll analyze the role of the international community in responding to and preventing further genocide, with a focus on the Nuremberg Tribunals, as well as investigate ongoing human rights crises around the globe. Through engaging discussions, brief papers, and documentaries, you will gain a deeper understanding of global issues related to justice and humanity.

Why Take This Course?

You will engage in meaningful projects, such as developing strategies to address human rights violations in your community, and build the skills to analyze, reflect on, and contribute to solutions for these critical global issues. Perfect for students passionate about history, justice, and activism, this course will empower you to make a difference in shaping a more just and humane world.

Prerequisite: *This course contains content that may not be appropriate for students younger than 15 years old.*

NCAA-Approved

Pathways: Global Studies; Justice, Ethics & Human Rights

GEOMETRY

Fast-Track Your Geometry Mastery: This seven-week summer course provides a fast-paced journey through a full year's worth of high school geometry. With a focus on Euclidean geometry, you'll explore key concepts like parallel lines, triangle congruence and similarity, quadrilaterals, polygons, and circles. Get ready to analyze lengths, areas, and volumes of both two- and three-dimensional figures, while also tackling transformations and introductory trigonometry.

Why Take This Course?

If you're eager to accelerate your math studies, this course offers a rigorous and engaging challenge. You'll develop logical thinking skills through arguments, deductions, theorems, and proofs, all while mastering a blend of theoretical and practical applications. With an intensive schedule (expect to dedicate 15-20 hours a week), you'll be well-prepared for future advanced math courses.

Prerequisite: *A strong background in Algebra 1 or its equivalent*

NCAA-Approved

Pathways: Mathematics & Quantitative Reasoning

GLOBAL HEALTH

Help Solve the World's Health Challenges: What makes people sick? Why do health disparities persist both locally and globally? In this course, you'll explore the social and political factors that influence health and the biggest challenges in global health today. Using an interdisciplinary approach, you'll engage in analytical reading and writing, research, and collaborative projects. You'll examine case studies, present your findings, and gain a deeper understanding of the biology of diseases, the social determinants of health, and the roles of public and private organizations. Additionally, you'll learn how global health statistics shape our understanding of health inequities and critically analyze how the distribution of healthcare resources and access impact health equity worldwide.

Why Take This Course?

Thinking about a career in healthcare or medicine? If you're passionate about improving health outcomes and addressing disparities, this course will equip you with the tools to understand and address complex global health issues. You'll learn the importance of understanding and respecting different cultures when planning health programs and explore the impact of resource distribution, preparing you to contribute thoughtfully to the field of global health and drive positive change.

NCAA-Approved

Pathways: Global Studies; Health Science

GRAPHIC DESIGN

Unleash Your Visual Voice: What makes a message persuasive and compelling? How do audiences interpret and make sense of information? This course dives into the powerful relationship between information and influence from a graphic design perspective. You'll gain the skills to create impactful visual content, exploring design principles, infographics, social media, digital search strategies, social activism, and multimedia storytelling. Through a case study and design-based approach, you'll work on individual and collaborative projects, content curation, writing, peer critiques, and online presentations.

Why Take This Course?

If you're interested in art, design, marketing, or visual storytelling, this course will empower you to design and prototype passion-driven communication projects driven by your interests. By the end, you'll have a portfolio of creative work and a solid understanding of how design shapes the way we share and interpret information.

Pathway: Art, Media & Design

HEALTH & FITNESS

Chart Your Path to Lifelong Fitness: What factors influence our bodies as we strive to maintain an active and healthy lifestyle? In this course, you'll learn about fitness components, exercise principles, training methods, movement phases, and athletic performance. You'll set personal fitness goals, track your progress, and engage in weekly exercises to target various areas of fitness. Through reflection and feedback, you'll understand how your efforts lead to improvement. The course ends with a student-led project where you will choose and explore topics that matter to you, such as nutrition, mental health in sports, exercise science, biomechanics, careers in sport, or community-based sports initiatives.

Why Take This Course?

This course will empower you to put what you learn into action, helping you develop and achieve personal health goals that will positively impact your life. Whether you're an athlete, aspiring trainer, or simply passionate about exercise science, you'll gain the knowledge and skills needed to lead a healthy and active lifestyle. Additionally, if your school has a physical education or health requirement that you can't seem to fit into your schedule, this course is for you.

Pathway: Health Science

INTERNATIONAL RELATIONS

Understand Global Conflict and Cooperation: Are China and the U.S. on a collision course for war? Can Israel and Palestine reach a peaceful solution to a long-term conflict? Will North Korea launch a nuclear weapon? Can India and Pakistan find a way to share the subcontinent in peace? In this course, you'll go beyond soundbites and daily news headlines to examine the context, causes, and consequences of today's most pressing global issues. Working alongside classmates from around the world, you'll learn strategies to prevent, mediate, and resolve conflicts, equipping you with the knowledge and skills to engage with global challenges thoughtfully and effectively.

Why Take This Course?

If you want to understand the complexities of international relations, this course offers an in-depth exploration of the causes and consequences of war, peace, and human rights through real-world case studies. For anyone interested in the forces that shape the global political scene, this course is a great foundation for further studies in geopolitics.

Pathway: Global Studies

INTRODUCTION TO ARTIFICIAL INTELLIGENCE

Explore AI's Impact on Our World: Artificial intelligence is everywhere, powering your favorite apps and influencing daily life in ways you may not see. How much do you really know about how generative AI works and how it's impacting our world? In this course, you'll dive into the history of AI research, from the early dreams of artificial general intelligence to the development of AI technologies like neural networks, machine learning, deep learning, generative AI, natural language processing, and facial recognition. You'll explore how AI systems are trained, understand the biases that arise from datasets, and learn about responsible AI principles like fairness, transparency, human-centeredness, and data privacy.

Why Take This Course?

If you're fascinated about how AI is shaping our future, this course will provide you with a well-rounded understanding of both the technical and ethical aspects of artificial intelligence. By the end, you'll be equipped with the knowledge and skills to thoughtfully engage with AI's potential and challenges, preparing you to be an informed and responsible contributor in the field of computer science.

Pathway: Computer Science & Engineering

INTRODUCTION TO BLOCKCHAIN & CRYPTOCURRENCY

Discover the Tech Shaping Tomorrow: The skyrocketing value of Bitcoin and the rise of meme tokens have captured the world's attention, but there's more to cryptocurrency than market capitalization and dog-themed coins. This beginner-friendly course dives into the fascinating world of blockchain and cryptocurrency, exploring how we got here and where the technology might be heading. You'll learn how crypto markets work, examine real-world applications, and consider the potential future of crypto through the perspectives of creators, consumers, and governments. Plus, you'll explore blockchain's far-reaching potential to revolutionize government, business, the arts, and more.

Why Take This Course?

If you're excited by the fast-paced world of crypto, this course is your gateway to understanding both the technology and its implications. Through engaging technologies, activities, and collaborative projects, you'll analyze how blockchain and cryptocurrency disrupt and shape various industries, preparing you to navigate and contribute to this transformative field.

Pathways: Business, Economics & Finance; Computer Science & Engineering

INTRODUCTION TO BRANDING & MARKETING

Build Brands That Stand Out: Ever wonder what gives your favorite brands their unique edge? In today's digitized world, we're constantly bombarded by ads and content, making it harder for brands to capture and keep our attention. This course reveals what it takes to build an effective brand that authentically connects with consumers and leaves a lasting impact. You'll explore the core elements of branding—from visual identity and advertising strategy to content marketing and the nuances of the customer journey. You'll also explore how addressing ethical, social, and environmental issues can influence a brand's success.

Why Take This Course?

If you're eager to learn the strategies behind successful brands, this course is for you. You'll apply marketing theories, go beyond the classroom to interview industry experts, and analyze modern case studies to become a skilled brand strategist. The course ends with a collaborative project where you'll design an impactful brand campaign for a mission-driven organization, gaining valuable real-world experience and insight for future careers or studies in business and marketing.

Pathway: Business, Economics & Finance

INTRODUCTION TO ECONOMICS

Explore the Forces That Shape Economies: How do individuals, businesses, and governments make decisions in a world of limited resources? In this course, you'll explore how consumers and producers interact to form markets, why governments sometimes step in, and an introduction to how economists measure and interpret national economic activity. Through discussions, debates, problem-solving, and reflective writing, you'll build a strong foundation in economic theory and apply it to real-world issues.

Why Take This Course?

If you've ever wondered why prices rise, why governments regulate, or how your choices connect to the global economy, this course helps you make sense of it all. You'll learn to think like an economist—analyzing tradeoffs, interpreting data, and weighing competing perspectives—to better understand your role as a consumer, worker, and voter in an interconnected world.

Note: *This course is a reimagined, redesigned, retitled version of the courses that were called Macroeconomics and Microeconomics through the 2025-2026 school year. Students who have already taken Macroeconomics or Microeconomics should consider choosing a different course.*

NCAA-Approved

Pathway: Business, Economics & Finance

INTRODUCTION TO LEGAL THINKING

Think Like a Lawyer: Step into the shoes of a lawyer in this engaging, case-based course that offers much more than just an introduction. You'll dive into real legal cases, sharpening your research, persuasive writing, and public speaking skills as you navigate the complex challenges lawyers face every day. From crafting legal briefs and advising fictional clients to delivering compelling trial statements, you'll immerse yourself in the rules and practices that define the profession. Along the way, you'll examine big ideas like justice, fairness, jurisprudence, and ethics, uncovering insights that will deepen your understanding of the legal world.

Why Take This Course?

If you're curious about the world of law, this course offers a hands-on, practical look at what it takes to be a lawyer. Ideal for aspiring attorneys or anyone fascinated by legal reasoning, it will sharpen your critical thinking and communication skills, preparing you for future legal studies or simply enhancing your ability to think and argue like a pro.

NCAA-Approved

Pathway: Justice, Ethics & Human Rights

INTRODUCTION TO ORGANIC CHEMISTRY I

This course is a prerequisite for Introduction to Organic Chemistry II at GOA.

Master the Building Blocks of Life: Prepare for university-level organic chemistry with this in-depth course focused on the mechanisms and reactions that form the basis of all living things as well as the principles of carbon chemistry. You'll discover the magnificent world of complex molecules, their properties, and reactions through real-world applications. This course is packed with engaging hands-on activities that will equip you with essential skills to address today's most pressing scientific challenges. You'll learn to predict electron movement for organic reactions, understand molecular structures, bond angles, shapes, polarity, and resonance, and master the fundamentals of organic nomenclature.

Why Take This Course?

If you're a future pre-health student or science major, this course is designed to build your problem-solving and pattern-recognition skills, preparing you to confidently speak the language of organic chemistry. It's the perfect foundation for success in one of the most challenging yet vital subjects in college science programs.

Note: *This course is the first in a two-part series. Organic Chemistry I is offered in Semester 1 and Organic Chemistry II is offered in Semester 2. While it is possible to take only this first course, we recommend signing up for both semester courses.*

Prerequisite: *Students should have taken the equivalent of one year of general chemistry prior to taking this course.*

NCAA-Approved

Pathway: Health Science

INTRODUCTION TO ORGANIC CHEMISTRY II

Solve Global Challenges With Carbon Chemistry: What should we think about when creating materials so they don't hurt the environment when we throw them away? What types of energy can we use that are more sustainable and can help us move away from relying on fossil fuels? These are just some of the critical questions you'll tackle as you continue your journey into the fascinating world of carbon chemistry, deepening your understanding of the organic world and its impact on global challenges. You'll expand your knowledge of the language of organic chemistry as you learn about additional functional groups, classes of organic molecules, and advanced nomenclature and reaction types. You will also dive into topics like sustainable materials, medical technology advancements, and the creation of better energy sources. With a focus on the important structures of organic molecules, you'll master predicting chemical outcomes from specific precursors and gain insights into the chemistry that impacts our everyday lives.

Why Take This Course?

If you're passionate about using science to address global problems and appreciate the interconnectedness of the organic world, this course will empower you with a greater understanding of polymerization, material science, and spectroscopy. Perfect for aspiring chemists, engineers, medical professionals, or anyone eager to make a meaningful impact through chemistry, you'll leave with the skills and knowledge to contribute to a more sustainable and innovative future.

Prerequisite: *Introduction to Organic Chemistry I*

NCAA-Approved

Pathway: Health Science

INTRODUCTION TO PSYCHOLOGY

Understand the Human Mind: What does it mean to think like a psychologist? In this course, you'll explore three main perspectives—behavioral, cognitive, and sociocultural—to develop a well-rounded understanding of the human mind and behavior. You'll also examine how psychologists put what they know into practice through research methods, ethics, and real-world applications. Engage in hands-on projects, like analyzing adolescent psychology and creating a case study on depression. The course wraps up with a dive into positive psychology, giving you tools to understand how to live mentally healthy and fulfilling lives.

Why Take This Course?

Curious about how the human mind works? Throughout this foundational course, you'll engage in collaborative projects and activities and learn from peers around the world. You'll also hone your research and critical-thinking skills. Perfect for anyone interested in the science behind behavior, this course will help you build psychology skills that are valuable to both academic and everyday life.

NCAA-Approved

Pathway: Psychology & Neuroscience

INVESTING I

This course is a prerequisite to Investing II at GOA.

Make Smart Financial Decisions: Step into the shoes of an investor, using real-world tools, theories, and decision-making practices to make smart financial choices. You'll explore key finance concepts, like valuation and risk management, and apply them to portfolio management, venture capital, and social investing. You'll learn how to manage and grow an investment portfolio by simulating investments in stocks, bonds, and options. Take on the role of

a venture capital investor, analyzing startups and forecasting their potential before they go public, as well as exploring social investing to see how finance can be a powerful force for positive change.

Why Take This Course?
With insights from finance experts and hands-on experience, you'll leave the course with a simulated investment portfolio and the skills to thoughtfully assess financial risks and rewards. Whether you're an aspiring investor, entrepreneur, or someone curious about global financial markets, this course will prepare you to navigate the complex world of finance with confidence.

Pathway: Business, Economics & Finance

INVESTING II

Master Diverse Investment Strategies: Deepen your understanding of smart investment practices and explore finance concepts across four key contexts: fixed-income investments, foreign exchange and cryptocurrency, commodities, and real estate. After an introduction to behavioral finance theories, you will simulate scenarios to strategically expand your equity portfolio. Discover how to hedge risk with bonds, navigate the volatility of forex and crypto markets, grasp the economic impact of commodity prices, and explore strategic approaches to real estate investing.

Why Take This Course?
Guided by insights from financial experts, you'll develop your own strategies for identifying value and taking calculated financial decisions. Perfect for anyone aiming to advance their investment skills or study economics and business, you'll gain a sophisticated understanding of portfolio management and the tools needed to thrive in today's dynamic global financial markets.

Prerequisite: *Investing I*

Pathway: Business, Economics & Finance

JAPANESE LANGUAGE THROUGH CULTURE I

This course (or its equivalent) is a prerequisite to Japanese II and III at GOA.

Journey Through Language and Tradition: Immerse yourself in the fascinating world of Japanese culture and language with this full-year course. You'll learn the basics of Japanese grammar, vocabulary, and the writing systems Hiragana and Katakana, while also diving into cultural topics like literature, art, lifestyle, and the economy. Through engaging assignments and hands-on projects, you'll develop your speaking, listening, reading, and writing skills. Cultural dynamic and relevant discussions conducted in English will deepen your understanding of Japan along the way.

Why Take This Course?
This course provides a unique experience that seamlessly blends language learning with cultural appreciation. Perfect for beginners, this course will expand your global perspective and set you on an exciting path toward mastering Japanese language and gaining a deeper appreciation for Japanese culture.

NCAA-Approved

Pathway: World Language & Culture

JAPANESE LANGUAGE THROUGH CULTURE II

This course (or its equivalent) is a prerequisite to Japanese III at GOA.

Expand Your Voice and Perspective: Building on your foundational skills, this course will take your Japanese language abilities to the next level, enhancing your speaking, listening, writing, and reading skills while immersing you further into Japanese culture. You'll engage in interpreting authentic Japanese material, practicing communication through speaking and writing, and delivering impactful oral and written presentations. Each unit explores fascinating cultural topics, such as design and expression, ecology, entertainment, East meets West, harmony, and nature, with opportunities to explore your own interests. You'll learn advanced grammar forms typical of second- and third-year high school Japanese, progressing from simple sentences to more complex, coherent paragraphs.

Why Take This Course?
This course will empower you to share your voice, broaden your global perspective, and appreciate both yourself and others through meaningful language learning. By curating and creating course content through research and collaboration with global peers, you'll enjoy a highly engaging and immersive experience that blends language and cultural exploration.

Prerequisite: *Successful completion of Japanese Language Through Culture I or permission from the instructor. Students who have completed Japanese I (or its equivalent) outside of GOA are required to take an oral placement assessment before beginning GOA's Japanese II course and should contact hello@globalonlineacademy.org to set up their oral placement. Additionally, incoming Japanese II students have mastered all hiragana, katakana, and Japanese I grammar and vocabulary.*

NCAA-Approved

Pathway: World Language & Culture

JAPANESE LANGUAGE THROUGH CULTURE III

Communicate Naturally and Confidently: Take your language and grammar skills to new heights as you develop your ability to understand the nuances of the Japanese language. Through face-to-face conversations and recorded messages, you'll practice informal styles, gaining confidence in using the Plain Form in conversations with your peers and teacher. You'll also dive into authentic, real-world Japanese by curating and interpreting materials like TV commercials, news articles, movies, children's books, and cooking recipes.

Why Take This Course?
This course will help you communicate naturally and effectively in Japanese while collaborating with peers and embracing a global perspective. It's perfect for students eager to refine their language skills and engage with Japanese culture in meaningful and practical ways.

Prerequisite: *Successful completion of Japanese Language Through Culture I and II or permission from the instructor. Students who have completed Japanese II (or its equivalent) outside of GOA are required to take an oral placement assessment before beginning GOA's Japanese III course and should contact hello@globalonlineacademy.org to set up their oral placement. Additionally, incoming Japanese III students have mastered most of the conjugation patterns(TE/TA form, dictionary form, and NAI form) that are necessary to speak and write in complex structures.*

NCAA-Approved

Pathway: World Language & Culture

LINEAR ALGEBRA

Transform Math Into Meaning: Explore the algebra of vector spaces and matrices through real-world applications in computer graphics and social network analysis. Starting with how images and objects are transformed in the plane and space, you will gain hands-on experience with core concepts. You'll dive into the practical side of math by modeling social networks and analyzing connections on platforms like Facebook and Google.

Why Take This Course?

Perfect for students interested in mathematics, computer science, or data analysis, this course will help you build problem-solving skills while providing a strong foundation in linear algebra with engaging, real-world applications.

Prerequisite: *Geometry and Algebra II or the equivalents (no prior experience with this software or linear algebra is necessary)*

NCAA-Approved

Pathway: Mathematics & Quantitative Reasoning

MEDICAL PROBLEM SOLVING I

This course is a prerequisite to Medical Problem Solving II at GOA.

Think Like a Doctor: This course puts you in the role of a medical detective as you investigate mysterious cases, identifying symptoms, making diagnoses, and exploring treatments—just like in medical school. You'll work both individually and collaboratively, sharpening your critical-thinking skills as you analyze data, diagnose illnesses, and develop treatment plans for patients. Dive into anatomy, physiology, disease process, demographics of disease, and treatment protocols, while also debating current health issues and evaluating the factors that influence patient care.

Why Take This Course?

If you're passionate about health and medicine, this course offers hands-on experience with the principles and practices of the medical field. Through role-playing scenarios with your peers as medical professionals and patients, you'll gain a deeper understanding of the medical world, making this course perfect for aspiring healthcare professionals.

NCAA-Approved

Pathway: Health Science

MEDICAL PROBLEM SOLVING II

Explore Global Medicine and Social Justice: Building on the problem-based approach of Medical Problem Solving I, this course will take you deeper into the world of global medicine, medical ethics, and social justice. You'll collaboratively analyze medical cases from around the world and your own community, uncovering the challenges patients face due to limited healthcare access, systemic discrimination, and the unequal distribution of medical resources. Tackle real-world medical dilemmas and engage in a culminating project, where you'll research a local health issue, go beyond the classroom to consult local sources, and propose actionable solutions for positive change.

Why Take This Course?

If you're passionate about medicine, health, and social justice, this course offers a unique opportunity to explore these topics through a global and ethical lens. By examining complex healthcare issues and proposing ideas for change, you'll develop a deeper understanding of the challenges and intricacies of the medical world, empowering you to advocate for better health outcomes in your community and beyond. Perfect for aspiring healthcare professionals and anyone driven to make a meaningful impact.

Prerequisite: *Medical Problem Solving I*

NCAA-Approved

Pathway: Health Science

MULTIVARIABLE CALCULUS I: VECTOR & DIFFERENTIAL CALCULUS

This course is a prerequisite for Multivariable Calculus II: Integral Calculus.

Explore the Math of Higher Dimensions: Embark on an exciting journey into multivariable calculus through vector and differential calculus, setting the groundwork for advanced study in three-dimensional space. You'll begin with parametric equations, polar coordinates, and space curves to explore movement and paths in higher dimensions. Then you'll progress into three-dimensional coordinate systems, mastering vectors, dot and cross products, and equations of lines and planes in space. Dive deeper into vector functions, derivatives, integrals, arc length, and curvature to quantify the behavior of curves in space. Then you will be ready to analyze functions of several variables, using tools like limits, continuity, partial derivatives, and the gradient vector, and you'll apply these skills to optimization problems, including constrained optimization with Lagrange multipliers.

Why Take This Course?

Do you want to push your understanding of mathematics even further? Through collaborative projects and the use of a computer algebra system (CAS), you'll connect mathematical concepts to real-world applications and develop fluency in tackling multi-dimensional challenges. Perfect for students passionate about advanced mathematics, this course provides a strong foundation for further studies in calculus, physics, engineering, or applied sciences.

Prerequisite: *A solid foundation in single-variable calculus, including integration techniques such as trigonometric substitution, integration by parts, and partial fractions. Completion of the AP® Calculus BC curriculum with a score of 4 or 5 on the AP® Exam would be considered adequate preparation.*

NCAA-Approved

Pathway: Mathematics & Quantitative Reasoning

MULTIVARIABLE CALCULUS II: INTEGRAL CALCULUS

Master Integrals, Theorems, and Beyond: In this advanced course, you'll dive deeper into multivariable calculus with a focus on integral calculus in multiple dimensions. Start with double integrals over rectangles and irregular regions, leveraging polar coordinates for applications like surface area, then advance to triple integrals in cylindrical and spherical coordinates. You'll also apply the change of variables technique to simplify complex integrations across various coordinate systems and explore vector fields, line integrals, Green's Theorem, curl, divergence, and parametric surface calculus. The course ends with surface integrals, leading to Stokes' Theorem and the Divergence Theorem—powerful tools in mathematics and physics.

Why Take This Course?
Using a computer algebra system (CAS), you'll visualize problems and enhance your understanding through collaborative projects and real-world applications. Ideal for aspiring mathematicians, physicists, or engineers, this course prepares you to tackle complex, multi-dimensional problems with confidence and precision.

Prerequisite: *Successful completion of Multivariable Calculus I: Vector & Differential Calculus, and the equivalent of a university year of single-variable calculus with integration techniques, including trigonometric substitution, integration by parts, and partial fractions. Completion of the AP® Calculus BC curriculum with a score of 4 or 5 on the AP® Exam would be considered adequate preparation.*

NCAA-Approved

Pathway: Mathematics & Quantitative Reasoning

MUSIC COMPOSITION & PRODUCTION

Tell Stories Through Music: In this course, you'll learn how to shape sound into songs that spark imagination and emotion. You'll experiment with melody, rhythm, harmony, texture, and form while using digital tools for recording, sequencing, sampling, arranging, and editing. Along the way, you'll explore how music functions across genres and cultures, drawing ideas from classical composers like Mozart and Ravel to contemporary DJs and digital artists. Weekly creative challenges will build your technical skills and artistic voice as you work toward a culminating project that showcases your unique style.

Why Take This Course?
Through beat-making, songwriting, remixing, and sound design, you'll practice turning inspiration into polished tracks in a collaborative environment that includes peer and instructor feedback. Whether you're new to music or already producing, this course gives you space to experiment and build a portfolio of original creations.

Pathway: Art, Media & Design

NEUROPSYCHOLOGY

Understand the Brain-Behavior Connection: Have you ever wondered how the anatomy of the brain shapes behavior? Discover the fascinating connections as you learn about neural function as well as cognitive and behavioral disorders. Explore how neural communication works and examine how environmental factors, like smartphone use, impact the nervous system and human behavior. You'll have the chance to choose research subjects that interest you and dive further into topics like Alzheimer's disease, addiction, neuroplasticity, and neurodegenerative diseases as you share your findings with your peers in creative ways.

Why Take This Course?
If you're curious about the science behind behavior and brain function, this course offers a captivating exploration into the workings of the human mind. By analyzing contemporary and historic neuropsychological case studies, you'll learn how to apply your knowledge to real-world scenarios. Ideal for students interested in psychology, neuroscience, or healthcare, this course will provide you with a strong foundation in understanding the neurological reasons behind human behavior.

NCAA-Approved

Pathway: Psychology & Neuroscience

NUMBER THEORY

Discover the Math Running Digital Security: Once considered the most abstract and least practical area of mathematics, number theory is now essential to our everyday digital world: every second, millions of secure internet transmissions rely on number theory for encryption. In this course, you'll explore the world of mathematical reasoning and proof, learning the tools needed to understand the RSA algorithm—the backbone of global internet security. You'll also invent your own encryption schemes and encounter games that use number theory. Alongside practical applications, you'll get a taste of the rich history of this subject, from legendary mathematicians to the proof of Fermat's Last Theorem (a famous problem solved just 20 years ago after 350 years of effort).

Why Take This Course?
You'll gain a solid foundation for upper-level university mathematics or theoretical computer science while understanding how number theory is applied in real-world encryption. This course makes mathematical reasoning and proof accessible and engaging, blending elegant concepts with practical uses. Ideal for students fascinated by math, cryptography, or computer science, you'll discover how timeless mathematical ideas power our modern, connected world.

Prerequisite: *A strong background in Precalculus and above as well as a desire to do rigorous mathematics and proofs*

NCAA-Approved

Pathway: Mathematics & Quantitative Reasoning

PERSONAL FINANCE

Manage Money to Make an Impact: Ready to plan for your financial future? In this course, you'll explore financial responsibility and social consciousness, diving into personal finance topics like budgeting, credit scores, career and earning potential, insurance, real estate, investments, retirement savings, charitable giving, and taxes. Through experts with diverse perspectives and simulating real-life financial scenarios, you'll learn to weigh the costs and benefits of your decisions and build confidence in managing your money.

Why Take This Course?
This course prepares you to manage your finances wisely while thinking about how your financial decisions can have a positive impact on the world around you. Perfect for anyone looking to build a solid financial foundation and make informed, socially conscious financial choices, this is your pathway to understanding the essentials of personal finance.

Pathway: Business, Economics & Finance

PERSPECTIVES ON GENDER & CULTURE

Explore Identity Across Cultures and Time: How does gender shape the world around us? This dynamic course uses the concept of gender to explore a wide range of current topics, from feminism and LGBTQ+ studies to popular culture and politics. You'll investigate how gender intersects with other social identifiers like class, race, sexual orientation, culture, and ethnicity. Through engaging readings, thoughtful writing, and lively discussions, you'll analyze gender issues and reflect on how they have shaped both your experiences and those of your global peers.

Why Take This Course?
If you're passionate about understanding how gender influences society, this course offers a deep exploration of identity and intersectionality. You'll gain valuable insights into how gender affects social and political landscapes, making it perfect for anyone interested in social justice, cultural studies, or exploring diverse perspectives.

Note: *This course is a retitled version of the course that was called Gender & Society through the 2025-2026 school year. Students who have already taken Gender & Society should consider choosing a different course.*

NCAA-Approved

Pathway: Justice, Ethics & Human Rights

POSITIVE PSYCHOLOGY

Unlock the Secrets to a Meaningful Life: What does it take to live a happy, meaningful, and fulfilling life? While traditional psychology often focuses on diagnosing human suffering, positive psychology flips the script and explores what truly makes life worth living—love, creativity, humor, mindfulness, and more. In this course, you'll dive into fascinating research about the ingredients for happiness and the science behind fulfilling relationships, creativity, mindfulness, and even the brain's response to art, music, and physical activity. You'll learn from experts, including Martin Seligman's well-being theory, Mihaly Csikszentmihalyi's concept of flow, and Angela Lee Duckworth's research on grit. But it doesn't stop at theory—you'll put your knowledge into action by learning how to conduct ethical research and experiments with subjects like yourself, your peers, and your family.

Why Take This Course?
In a collaborative, practical learning environment, you'll design and share projects that explore what makes life meaningful, and you'll walk away with tools and insights that will inspire and guide you for years to come. This course is perfect for anyone who wants to study psychology or who may just be curious about the science of happiness and eager to create a life of fulfillment.

NCAA-Approved

Pathway: Psychology & Neuroscience

PRECALCULUS

Accelerate Your Advanced Math Concepts: This seven-week summer course will take you on a fast-paced journey through a full year of high school precalculus. With a focus on functions—transformations, domain and range, and visual representations—you'll also deepen your understanding of equivalence across numerical, graphical, and algebraic forms while mastering algebraic manipulation. You'll apply existing skills to new situations as you tackle projects involving polynomials, matrices, trigonometry, sequences, and series while analyzing situations, creating models, and developing solutions. The experience culminates in a final project where you'll apply everything you've learned to explore and present a complex scenario.

Why Take This Course?
Perfect for motivated students looking to accelerate their math studies, this rigorous course will prepare you for success in higher-level mathematics. Expect an intensive schedule (dedicating 15-20 hours per week) for a rigorous and engaging challenge.

Prerequisite: *Algebra ll or its equivalent*

NCAA-Approved

Pathway: Mathematics & Quantitative Reasoning

PRISONS & CRIMINAL JUSTICE SYSTEMS

Balance Rights and Power: What determines who goes to prison and for how long, and how do legal systems shape justice—or fail to? In this course, you will gain a practical understanding of legal systems while confronting mass incarceration as a pressing legal, ethical, and societal challenge. You will also explore the various stages of the U.S. criminal justice system—arrest, prosecution, adjudication, sentencing, and imprisonment—and dive into key topics like policing practices, prosecutor reform, sentencing guidelines, and the role of AI in justice.

Why Take This Course?
Through research, legal reasoning, and advocacy, you'll engage in meaningful projects that ask you to communicate with specialized audiences, such as juries, and investigate local legal systems. This course will challenge you to critically analyze justice systems and contribute to real-world solutions. Ideal for students interested in law, ethics, or social justice, this course will equip you with the tools to analyze and advocate for meaningful reforms in justice systems worldwide.

NCAA-Approved

Pathway: Justice, Ethics & Human Rights

PROBLEM SOLVING WITH ENGINEERING & DESIGN

Design Creative Solutions: Dive into the exciting intersection of science, technology, engineering, and mathematics by tackling meaningful, real-world challenges. In this project-based course, you'll develop essential engineering skills like design principles, modeling, and presentation techniques while leveraging a variety of computer hardware and software tools. Collaborating in teams, you'll design prototypes and explore practical applications of science and math to address issues in your home, community, and beyond.

Why Take This Course?
Step into the role of an engineer and discover the diverse ways they impact society. You'll work on projects that not only solve real-world problems but also open the door to potential career paths in science and math. Perfect for creative thinkers and problem-solvers, you'll develop the skills and experience needed to innovate and make a difference.

Note: *There are no particular math or science prerequisites for this course, just an interest in using STEM to solve problems and a desire to learn!*

NCAA-Approved

Pathways: Computer Science & Engineering; Mathematics & Quantitative Reasoning

RACE, CULTURE & COMMUNITY

Explore the Dynamics of Social Construct: What is race? Is it something we're born with, or is it an idea created by society? Is it an identity we perform? A privilege for some? And how do the ways people understand race vary around the world? In this course, you'll dive into these essential questions, examining race as a social construct

that has a profound impact on societies and cultures. Through thought-provoking readings, films, and guest speakers from fields like history, sociology, anthropology, and literature, you'll research, reflect on, and discuss the intricate dynamics of race and society across different times and places.

Why Take This Course?

This course is perfect for students who want to understand how social constructs shape our world. You'll be empowered to contribute thoughtfully to important conversations about race and culture in your other high school courses and beyond.

Note: *This course is a retitled version of the course that was called Race & Society through the 2025-2026 school year. Students who have already taken Race & Society should consider choosing a different course.*

NCAA-Approved

Pathway: Justice, Ethics & Human Rights

SOCIAL PSYCHOLOGY

Decode Human Influence: Are your thoughts, feelings, and actions truly your own, or are they shaped by the people around you? Social psychology explores how the real, imagined, or implied presence of others influences what we think, feel, and do. From understanding why we obey stop signs at intersections when no one is around or why we buy certain products to exploring dramatic phenomena like mass discrimination or extreme group behavior, you will examine the principles that shape human behavior in this course. You'll explore, investigate, and apply key concepts in social psychology, culminating in a public exhibition of your own self-designed research project on a topic that interests you.

Why Take This Course?

Think like a social psychologist as you analyze topics such as prejudice, persuasion, conformity, altruism, relationships, and group dynamics. Perfect for anyone curious about human behavior, this course will help you build critical skills in inquiry, experimentation, and analysis, preparing you to understand and interpret the forces that influence us every day.

NCAA-Approved

Pathway: Psychology & Neuroscience

VIBE CODING: CODE, CREATE & LAUNCH WITH AI

Collaborate with AI: Ready to turn your ideas into working apps—no coding experience required? In this seven-week summer course, you'll learn to create software by describing what you want and guiding AI to build it. You will work with AI coding agents that will help you write, test, and refine code, while staying in control of the creative process. Through design thinking, you'll move from brainstorming to prototyping and launch, learning how to craft effective prompts, iterate with confidence, and bring your vision to life. You'll design and deploy two applications, an individual prototype and a collaborative project, while exploring the ethical and security implications of AI-generated code, including privacy, bias, and responsible use.

Why Take This Course?

Whether you're interested in technology, entrepreneurship, or design, you'll gain confidence using vibe coding tools to build apps for business, education, and fun. You'll leave with the ability to turn ideas into functioning applications—and a deeper understanding of how to create responsibly with AI.

Pathway: Computer Science & Engineering

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