

Tab 1



# Samueli Academy Course Catalog

2025-2026 School Year

1901 N. Fairview St., Santa Ana, CA 92706

## General Information

### Samueli Academy Graduation Requirements

<a href="#">English</a>	4 Years (40 Credits)
<a href="#">Mathematics</a>	3 Years (30 Credits)
<a href="#">Science</a>	3 Years (30 Credits)
<a href="#">Social Studies</a>	3 Years (30 Credits)
<a href="#">Physical Education/Health</a>	2 Years (20 Credits)
<a href="#">Language/ Visual &amp; Performing Arts</a>	1 Year (10 Credits)
<a href="#">Career Pathway</a>	3 Years (30 Credits)
<a href="#">Virtual Enterprise</a>	1 Year (10 Credits)
<a href="#">Electives</a>	2 Years (20 Credits)
Internship (completed in summer after 11th grade)	
<b>Total Credits to Graduate</b>	<b>220 Credits</b>

### "A - G" Courses

These are course requirements to be considered for admission to any of the public colleges within California (University of California and California State Universities (UCs and CSUs). A student must complete 15 "A-G" courses with a grade of "C" or better (at least 11 of them should be completed prior to the senior year). Taking approved "A-G" courses isn't the only way to satisfy these requirements. Students also may meet them

by completing college courses, or earning minimum scores on Advanced Placement or International Baccalaureate exams.

## **University of California (UC) and California State University (CSU) "A-G"**

### **Subject Requirements**

A. History/Social Science	2 Years
B. English	4 Years
C. Mathematics	3 Years (4 Years recommended)
D. Laboratory Science	2 Years (3 Years recommended)
a. (must include a life and physical science)	
E. Foreign Language	2 Years (3 Years recommended)
F. Visual Performing Art (VPA)	1 Year
G. College Prep Electives	1 Year

### **Course Remediation**

- A grade of "D" or higher is considered passing at Samueli Academy
  - A grade of "C" or higher is required to meet college admissions requirement
- If a student fails a course, he/she is expected to make up the course in summer school following that school year.
- Incomplete grades (designated by the letter "I") must be made up no later than the following semester. If they are not made up, incomplete grades become "F" grades.
- If a student plans to make up "D" or "F" grades in the summer at a school or through a program other than Samueli Academy, the student must meet with a Samueli Academy counselor prior to registering at the off-campus site. Upon the completion of the required course, a report card or official transcript must be submitted directly to the student's counselor at Samueli Academy.

### **Sample Program of Studies**

Periods	7th Grade	8th Grade	Freshman Year	Sophomore Year	Junior Year	Senior Year
1	English	English	English	English	English	English
2	Mathematics	Mathematics	Mathematics	Mathematics	Mathematics	Mathematics or Elective

3	Science	Science	Science	Science	Science	Science or Elective
4	Social Studies	Social Studies	Introduction to Pathways	Level 2 Pathway	Level 3 Pathway	Level 4 Pathway or Elective
5	Elective	Elective	Elective	Social Studies	Social Studies	Social Studies
6	PE/Health	PE/Health	PE/Health	PE	Elective	Elective
7			Visual or Performing Art or Language Other Than English or Elective	Visual or Performing Art or Language Other Than English or Elective	Visual or Performing Art or Language Other Than English or Elective	Visual or Performing Art or Language Other Than English or Elective
8			Elective	Elective	Elective	Elective
9	Advisory	Advisory	Advisory	Advisory	Advisory	Advisory

### **Advanced Placement Information**

[Advanced Placement \(AP\)](#) courses provide high school students the opportunity to take college-level courses taught by Samueli Academy staff. Upon passing an AP course examination administered by the College Board, students may receive college credit from many U.S. colleges and universities.

AP courses make substantial academic demands on students. Most courses are a full year in length. Students are required to do considerable outside reading and other assignments and to demonstrate the analytical skills and writing abilities expected of first-year students in a strong college program.

### **Scheduling Information**

The scheduling process for the upcoming school year will begin mid-Spring semester with hopes to finalize course requests by the end of the school year. Dual Enrollment courses require a separate enrollment process, and counselors will inform students of those opportunities as they arise. Honors courses are integrated into the college

preparatory level courses. Honors contracts are issued by teachers at the beginning of each semester for interested students.

### Dual Enrollment Information

Samueli Academy students are encouraged to take the most rigorous and accelerated program in which they can be successful. Dual enrollment allows students to take college classes while still in high school. Classes are taught by college faculty, either at the college, high school, or through distance education. Our current partnership is with Santa Ana College.

Course offerings are subject to change from semester to semester. Dual enrollment is advantageous to students because it is a cost-efficient way to accumulate college credits and allows students to get a headstart on their college careers. In some cases, the student may even be able to attain an Associate's degree shortly before or after their high school graduation. Participation in dual enrollment may ease the transition from high school to college by giving students a sense of what college courses are like.

***Policy and practices: All students interested in Dual Enrollment must meet with their high school counselor for advisement regarding the most appropriate plan of study for their goals as well as to receive instruction regarding enrollment steps. Tuition is free to high school students; however, students may be required to pay for their textbooks as well as a small student fee if courses are taken at the college.***

## Course Descriptions

### Career Pathway

Pathway	9th Grade	10th Grade	11th Grade	12th Grade
Design	Intro to Design*	Design 2*	Design 3*^	Design 4*
Engineering	Intro to Engineering*	Engineering 2*	Engineering 3*	Engineering 4*

All students at Samueli Academy take Introduction to Engineering and Introduction to Design within their first year on campus. Upon entering 10th grade, students choose their own Pathway by entering into Design 2 or Engineering 2. The Level 2 and 3 are mandatory courses in satisfying our graduation requirements. The Level 4 Pathway course is optional for all students.

# DESIGN

Design	9th Grade	10th Grade	11th Grade	12th Grade
	Intro to Design*	Design 2*	Design 3*^	Design 4*
Honors	Honors Intro to Design	Honors Design 2	N/A	Honors Design 4

## INTRO TO DESIGN\* (05195/05195H)

**Grade level:** 9

**Recommended Prerequisite:** None

**Description:** This class will address the Elements of Art (line, shape, value, form, color, texture, space) and Principles of Design (balance, proportion, rhythm, emphasis, unity), while integrating the curriculum with Environmental Science. Most importantly, the design program will utilize basic materials to encourage and challenge each student's talents, creative abilities and critical thinking skills in his/her journey toward self-expression, personal awareness and self-esteem.

## DESIGN 2\* (05260/5260H)

**Grade level:** 10, 11 or 12

**Recommended Prerequisite:** Intro to Design or by permission of Instructor. Will accept Engineering students who require a Fine Art, space permitted.

**Description:** This course introduces students to a studio-based, hands-on approach to visual communication design. Students will learn the elements and principles of design, how to design with specific audiences in mind as well as design projects tailored to these audiences—from events to fashion brands and toys to game design. Topics also include color theory, visual perception theories, typography, symbols, brand identity, logos, and information design.

## DESIGN 3\*^ (05261)

**Grade level:** 11

**Recommended Prerequisite:** Intro to Design & Design 2

**Description:** Design 3 is a combination of two semester-long Santa Ana College courses.

Digital Media 113 (Fall Dual Enrollment Course) is an integrated and project-based art and design studio course focusing primarily on creative problem solving, service to humanity and professional skills development. Fundamentals of visual organization, color theory, elements and principles of design, historical art movements, typography and digital tools in the Adobe CC Suite (Illustrator, PhotoShop & InDesign) will be

studied. Projects range from the design of restaurants to the design of Olympic apparel and merchandise. **Transferable to CSU; UC. 3 credits.**

Digital Media 122 (Spring Dual Enrollment Course) is a dual enrollment, project-based design studio course that will challenge students to think critically, creatively, and systemically as we explore the Four Orders of Design. Students will continue to expand their experience in design history, the elements and principles of design, typography and layout, digital tools in the Adobe CC Suite (Illustrator, Photoshop, and InDesign primarily) creative and technical writing, ethics in practice, time and project management, presentation, collaboration and more. Projects range from the design of your own Start-Up Business to websites and from Animation to Mobile Apps.

**Transferable to CSU; UC. 3 credits.**

## DESIGN 4\* (11153)

**Grade level:** 12

**Recommended Prerequisite:** Design 2, Design 3, Seniors Only

**Description:** Project-based high school design studios focused on service to humanity, entrepreneurship and professional skills development. Students will take their design skills to the next level as they participate in our new student-run design agency housed in our new Innovation Center. They will work for real-world clients and hopefully find their passion and area of focus. Students will be equipped with new capabilities and Digital Literacy (Adobe CC Suite) as they are exposed to a depth and breadth of the different design disciplines, professional practice, and the tools and techniques of design that will position them for careers that do not yet exist.

# ENGINEERING

	9th Grade	10th Grade	11th Grade	12th Grade
Engineering	Intro to Engineering*	Engineering 2*	Engineering 3*	Engineering 4*
Honors	Honors Intro to Engineering	Honors Engineering 2	Honors Engineering 3	Honors Engineering 4

## ENGINEERING 0 (71002)

**Grade level:** 8

**Description:** Students will learn about the basics of engineering, robotics, and 3D systems in preparation for the high school engineering pathway. This course will focus on simple machines, 3D printing, and robots. The first part of the year will be spent designing and building simple machines and learning about mechanical systems, energy

transfers, and the world before the modernization of robots. The remaining part of the year will be spent focusing on robots and 3D printing.

### **INTRO TO ENGINEERING\*** (21003/21003H)

**Grade level:** 9

**Description:** The theme of ENGINEERING at Samuelli Academy is “Working at Learning” reinforcing the authentic workspace environment while conveying that learning requires effort from all involved. Engineering 1 introduces and develops the concepts, content and skills needed to gain an overall understanding of what Engineering is all about and to prepare you for your decision to select Engineering 2 or Design 2 next year. Engineering 1 will be conducted in a Design/Build/Test format reflecting how engineering & design is really done. Central to every project will be the Engineering Design Process.

### **ENGINEERING 2\*** (21004/21004H)

**Grade level:** 10

**Recommended Prerequisite:** Intro to Engineering

**Description:** The theme of Engineering at Samuelli Academy is “Working at Learning” reinforcing the authentic workspace environment while conveying that learning requires effort from all involved. Engineering 2 builds on the concepts, content and skills developed in Engineering 1 and takes them to a higher level while developing content and skills needed for Engineering 3 and 4. In short, Engineering 2 provides an opportunity for you to experience more involved projects using the Engineering Process. As in ENGINEERING 1, this class will be conducted in a DESIGN/BUILD/TEST format reflecting how engineering is really done. Central to every project will be the ENGINEERING DESIGN PROCESS. The projects will be conducted in a Project Based Learning (PBL) format.

### **ENGINEERING 3\*** (21005/21005H)

**Grade level:** 11

**Recommended Prerequisite:** Engineering 2

**Description:** The theme of Engineering at Samuelli Academy is “Working at Learning” reinforcing the authentic workspace environment while conveying that learning requires effort from all involved. Engineering 3 builds on the concepts, content and skills developed in Engineering 2 and takes them to a higher level while developing content and skills needed for Engineering 4. In short, Engineering 3 provides an opportunity for you to experience more involved projects using the Engineering Process. As in Engineering 2, this class will be conducted in a DESIGN/BUILD/TEST format reflecting how engineering is really done. Central to every project will be the



ENGINEERING DESIGN PROCESS. The projects will be conducted in a Project Based Learning (PBL) format.

#### **ENGINEERING 4\*** (21006/21006H)

**Grade level:** 12

**Recommended Prerequisite:** Engineering 3

**Description:** The theme of Engineering at Samueli Academy is “Working at Learning” reinforcing the authentic workspace environment while conveying that learning requires effort from all involved. Engineering 4 builds on the concepts, content and skills developed in Engineering 1, 2 and 3, taking them to a higher level while developing content and skills needed for college and career. In short, Engineering 4 provides an opportunity for you to experience more involved projects using the Engineering Process. As in Engineering 3, this class will be conducted in a DESIGN/BUILD/TEST format reflecting how engineering is really done. Central to every project will be the ENGINEERING DESIGN PROCESS. The projects will be conducted in a Project Based Learning (PBL) format. .

## VIRTUAL ENTERPRISE

	9th Grade	10th Grade	11th Grade	12th Grade
VEI	N/A	N/A	N/A	Virtual Enterprise*

#### **VIRTUAL ENTERPRISES INTERNATIONAL (VEI)\*** (012055)

**Grade level:** 12

**Recommended Prerequisite:** Senior-level course only

**Description:** Virtual Enterprise is a simulated business course that is set up and run by students to prepare them for working in a real business environment. With the guidance of a teacher, and real-world business partners, students will determine the nature of their business, products and services, management and structure and engage in the daily operations of running a business.

## ENGLISH

	7th Grade	8th Grade	9th Grade	10th Grade	11th Grade	12th Grade
College Prep	English 7	English 8	English 9*	English 10*	English 11*	English 12
Honors	English 7	English 8	English 9	English 10	English 11	English 12

Key   \* meets UC approval for “A-G”   ▲ is a Dual Enrollment course

	Honors	Honors	Honors	Honors*	Honors*	
<b>Advanced Placement</b>	N/A	N/A	N/A	N/A	AP Language and Composition*	
<b>Humanities Pairings</b>	N/A	N/A	N/A	<b>World Humanities:</b> English 10 and World History	<b>American Lens:</b> English 11 and U.S. History	<b>Political Studies:</b> English 12 and Government and Economics
<b>Electives</b>	N/A	N/A	English 101 <sup>^</sup> , English 102 <sup>^</sup>			

### **ENGLISH 7 (50135)**

**Grade level:** 7

**Description:** This course builds upon students' prior knowledge of grammar, vocabulary, word usage, and the mechanics of writing, and includes the four aspects of language use: reading, writing, speaking, and listening. Beyond emphasizing different uses for language, the course also includes using language (particularly written text) to construct meaning and connections.

### **ENGLISH 8 (51036)**

**Grade level:** 8

**Recommended Prerequisite:** English 7

**Description:** This course builds upon students' prior knowledge of grammar, vocabulary, word usage, and the mechanics of writing, and includes the four aspects of language use: reading, writing, speaking, and listening. The course uses various genres of literature to improve reading skills, and they link writing exercises for different purposes to those reading selections.

### **ENGLISH 9\* (01001/01001H)**

**Grade level:** 9

**Description:** This freshman level English Language Arts course will ask students to read, understand, and analyze technical and informational text, along with fictional texts. Students will use these texts as foundations to projects that engage with real world issues and personal connections. Additionally, we will use rhetorical strategies to create effective arguments, demonstrate research skills, and deliver focused presentations to engage our audiences.

### **ENGLISH 10 \*(01002/01002H)**

**Recommended Grade level:** 10-12

**Recommended Prerequisite:** English 9

**Description:** In English 10, you will read, write, speak and listen as you would in a traditional English class, but this class will integrate your learning with World History. For texts, you will read a combination of non-fiction and fiction, including the following works: *Persepolis*, *Things Fall Apart*, *Night and Other Moons*—all while connecting these books to the major historical events occurring in world history. You will write personal narratives, persuasive essays, and research papers. And, of course, you will orally present at the end of most projects.

**ENGLISH 11\*** (01003/01003H)

**Recommended Grade level:** 11-12

**Recommended Prerequisite:** English 9 and 10

**Description:** In English 11, you will read, write, speak and listen as you would in a traditional English class, but this class will integrate your learning with United States History. For texts, you will read a combination of non-fiction and fiction, including works like: *The Tortilla Curtain*, *The Great Gatsby*, *Enrique's Journey* and more—all while connecting these books to the major historical events occurring in our country's history. You will write narratives, informational texts, arguments, and a research paper. And, of course, you will orally present at the end of most projects.

**AP ENGLISH LANGUAGE & COMPOSITION\*** (01005)

**Grade level:** 11 or 12

**Recommended Prerequisite:** Successful completion of English 9-10 with a grade of "C" or better. Students may take this course in addition to the integrated, grade-level English course for 11th or 12th grade. If taken in place of the integrated, grade-level course, students may be required to take AP US History (11th) or US Government via dual enrollment course.

**Description:** Advanced Placement English develops critical thinking and writing skills, preparing students for the Advanced Placement Exam in Language and Composition. Espousing the concept "everything's an argument," the class is an exploration of canonical and emerging canonical nonfiction and fictional works with an emphasis on the early American experience ranging from Puritans to post-civil war. Students will also engage in close reading and annotating nonfiction in order to comprehend author purpose. In doing so, they will develop an appreciation for diction, syntax, and style and an understanding of the methods of argumentation (rhetoric). Students not only study the American voice, but while they read, write, and study various writing techniques and academic discourse language, they also begin to find their own unique voice. A strong work ethic is encouraged for the rigor of this course. Students must be able to read well, understand grammar, and employ composition skills with a high level of competence before entering this course.

## **ADVANCED ENGLISH LANGUAGE DEVELOPMENT (SA Connections) (01992)**

**Grade level:** 9-12

**Recommended Prerequisite:** None, by teacher recommendation only

**Description:** The goal of this class is to provide additional work time and instructional support as students acquire both English language proficiency and content area knowledge. The ELD teacher works with content teachers to chunk and identify key vocabulary and content that will help English Language Learners to be successful. This class will also help prepare for the ELPAC exam. We will work specifically on:

- Word analysis
- Reading comprehension
- Literary response and analysis
- Writing strategies
- Writing conventions
- Speaking
- Listening

## **DIGITAL VOICES: LANGUAGE IDENTITY & CULTURE IN THE ONLINE WORLD\*** (01104D)

**Grade level:** 9 - 12

**Description:** In this course, students will critically explore how the internet has transformed communication, storytelling, and the use of language in modern society. Through the analysis of digital texts such as memes, blogs, comment threads, viral videos, forums, and online communities, students will examine how meaning, identity, and culture are constructed and challenged in virtual spaces.

Students will engage with a range of literary and informational texts—including essays, digital articles, fiction, and multimedia content—and produce analytical, narrative, and argumentative writing. Emphasis will be placed on rhetorical analysis, author purpose, audience awareness, and the evolution of English in digital contexts. Units will cover topics such as “internet English,” digital subcultures, reaction media, and the spread of urban legends online.

By the end of the course, students will demonstrate media and digital literacy, apply close reading strategies to both traditional and online texts, and compose well-developed written responses that reflect critical thinking and understanding of the complex relationship between language and digital culture.

## **ENGLISH 101 - FRESHMAN COMPOSITION^** (04253)

**Offered:** Semester-long course planned as a Fall 2025 offering. 4 unit course.

**Grade level:** 10 -12

**Recommended Prerequisite:** English 061 or English 061X or English for Multilingual Students 112 with a minimum grade of C or qualifying profile from English placement

**Key**   \* meets UC approval for “A-G”   ^ is a Dual Enrollment course

process. Freshman Composition. Expository and argumentative essays and the research paper. Special interest sections described in the schedule of classes.

**Description:** Expository and argumentative essays and the research paper.

## ENGLISH 102 - LITERATURE & COMPOSITION<sup>^</sup> (04259)

**Offered:** Semester-long course planned as a Spring 2026 offering. 4 unit course.

**Grade level:** 10 -12

**Recommended Prerequisite:** A second semester course in composition and literature that uses literature to develop critical thinking skills with extensive readings selected from the four major genres

**Description:** A second semester course in composition and literature that uses literature to develop critical thinking skills with extensive readings selected from the four major genres.

## SOCIAL STUDIES

	7th Grade	8th Grade	9th Grade	10th Grade	11th Grade	12th Grade
College Prep	History 7	History 8	N/A	World History*	U.S. History*	American Government*/ Economics*
Honors	Honors History 7	Honors History 8	N/A	Honors World History*	Honors U.S. History*	Honors American Gov*
Advanced Placement	N/A	N/A	N/A	N/A	AP United States History*	AP United States History*; AP United States Government & Politics*
Humanities Pairings				World Humanities: English 10 and World History	American Lens: English 11 and U.S. History	Political Studies: English 12 and Government and Economics

### HISTORY 7 (54437/54437H)

**Grade Level:** 7

**Description:** This course provides continued development of understanding and skills in the social studies disciplines: history, geography, civics and government, and economics.

### HISTORY 8 (54438/54438H)

Key \* meets UC approval for "A-G" <sup>^</sup> is a Dual Enrollment course

**Grade level:** 8

**Recommended Prerequisite:** History 7

**Description:** This course provides continued development of understanding and skills in the social studies disciplines: history, geography, civics and government, and economics. The course focuses on single disciplines at a time to develop discipline-related skills.

**WORLD HISTORY\*** (04053/04053H)

**Grade level:** 10

**Recommended Prerequisite:** None

**Description:** This interdisciplinary course blends world history and literature to explore global events, movements, and human experiences from the 18th century to the present. Through thematic units and hands-on projects—such as creating digital resistance hubs for colonized regions, simulating Cold War broadcasts, and investigating cultural communities shaped by globalization—students analyze how historical forces and cultural narratives shape our modern world. Emphasizing critical thinking, media literacy, and cross-cultural understanding, this course prepares students to make informed connections between the past and present.

**UNITED STATES HISTORY\*** (04103)

**Grade Level:** 11

**Recommended Prerequisite:** Successful completion of a yearlong course of World History with a grade of “C” or better

**Description:** This course is designed to increase student understanding of the American people through the study of social, historical, and cultural events. The course includes a review of US History up to 1890 followed by a focus on turn of the century to the present day.

**AP UNITED STATES HISTORY\*** (04104)

**Recommended Grade level:** 11

**Recommended Prerequisite:** Completion of a yearlong course of World History with a grade of “C” or better. Please note students taking this course will be required to take US History if they are not also enrolled in AP English Language or English 101 to keep with the humanities pairing adoption.

**Description:** AP US History engages students in a detailed study of American history from our earliest origins to the present day. Emphasis is placed on understanding themes, cause/effect relationships and broad examinations of social, political, cultural and economic issues that have shaped our nation. AP US History is an advanced college level course, which emphasizes research, writing, and discussion. Students will be expected to keep up with a rigorous reading schedule.

## **GOVERNMENT\*** (04151/04151H)

**Grade level:** 12

**Recommended Prerequisite:** Successful completion of yearlong courses of World History & US History with a grade of "C" or better.

**Description:** This course surveys the federal system at the national, state and local levels. It examines the U.S. Constitution with an emphasis on the rights and responsibilities of the citizens. Students examine American political, social, economic, and legal systems. Students then compare and contrast these systems with foreign systems.

## **AP UNITED STATES GOVERNMENT & POLITICS\*** (04159)

**Grade level:** 12

**Recommended Prerequisite:** Completion of yearlong courses of US History or AP US History with a grade of "C" or better.

**Description:** AP U.S. Government and Politics is an introductory college-level course in U.S. government and politics. Students cultivate their understanding of U.S. government and politics through analysis of data and text-based sources as they explore topics like constitutionalism, liberty and order, civic participation in a representative democracy, competing policy-making interests, and methods of political analysis.

## **A-G ECONOMICS\*** (04201)

**Grade level:** 12


**Recommended Prerequisite:** Successful completion of US Government with a grade of "C" or better

**Description:** This course examines the fundamental economic concepts such as scarcity, opportunity costs and trade-offs, productivity, economic systems, economic institutions and incentives. The course will also include such microeconomics concepts as market and prices, supply and demand, competition and market structure, income distribution and the role of government. Macroeconomics concepts include international trade, unemployment, inflation and deflation, and fiscal and monetary policy.

# MATH

	7th Grade	8th Grade	9th Grade	10th Grade	11th Grade	12th Grade
College Prep	Math 7	Integrated Math 1*	Integrated Math 2*	Integrated Math 3*	Pre-Calculus*	Calculus or AP Calculus AB*

Key   \* meets UC approval for "A-G"   ▲ is a Dual Enrollment course

<b>Honors</b>	Math 7 Honors	Integrated Math 1 Honors*	Integrated Math 2 Honors*	Integrated Math 3 Honors*	Pre-Calculus Honors*	
<b>Electives</b>	N/A	N/A	N/A	Math 105 <sup>^</sup> Math 140 <sup>^</sup>		
<b>Advancement Options through Dual or Concurrent Enrollment</b>				 Samueli Academy Math Sequence Options...		

## **MATH 7 (52037/52037H)**

**Grade Level: 7**

**Description:** This course emphasizes proficiency in skills involving number and operations; measurement; patterns; functions; algebraic formulas; geometry; and concepts of data analysis, including statistics and probability.

## **INTEGRATED MATH 1\* (02062/02062H @ high school, 52061/52061H @ middle school)**

**Grade level:** 8-12

**Recommended Prerequisite:** none

**Description:** This course sets the foundation for the Integrated Math course sequence for students. Major math concepts covered in Integrated Math 1 include: representations of functions in tables, rules, situations and graphs; one variable statistical analysis using standard deviation; trigonometry and similarity; systems of equations including solving one and two variable equations using graphical and algebraic representations; exponential equations and exponential functions. Alongside learning these major math concepts, students will also be oriented to the expectations of Samueli Mathematicians: cooperative collaborators, articulate oral communicators, strong writers, and agents of their own learning.

## **INTEGRATED MATH 2\* (02063/02063H)**

**Recommended Grade level:** 9-11

**Recommended Prerequisite:** Integrated Math 1 (or equivalent) and/or scoring at least proficient on mathematics placement test

**Description:** Students will build on their knowledge from Integrated Math 1 by studying quadratic functions, graphs, equations, area, volume and the pythagorean theorem in the fall. In the spring students will study slope, derivatives, exponential growth, transformations, construction, proofs, probability and expected value.

## **INTEGRATED MATH 3\* (02064)**

**Recommended Grade level:** 9-12

**Recommended Prerequisite:** Integrated Math 2



**Description:** This course brings together knowledge acquired in the previous two years of math. Students will prepare for future advanced mathematics courses by expanding their knowledge of functions, right triangle trigonometry, and experiences with data as they solve sophisticated problems using critical thinking skills and mathematical modeling.

**PRE-CALCULUS\*** (02110)

**Recommended Grade level:** 11-12

**Required Prerequisite:** Integrated Math 3

**Description:** Strengthen algebraic and trigonometric skills for calculus. Topics include functions, trigonometry, matrices, sequences, and series. Apply concepts to real-world problems. Prepares for AP Calculus AB.

**CALCULUS\*** (02121)

**Recommended Grade level:** 11-12

**Required Prerequisite:** Precalculus with a grade of C or better

**Description:** This course introduces students to the fundamental concepts of calculus through an emphasis on deep understanding and real-world problem-solving. Topics include functions, limits, continuity, the definition of the derivative, and differentiation rules for elementary, trigonometric, logarithmic, and exponential functions. Students will explore the applications of derivatives and integrals in meaningful contexts, such as modeling change, optimizing systems, and analyzing area and volume. Learning will be driven by problem- and project-based approaches, encouraging collaboration, critical thinking, and inquiry. Graphing technology will be integrated to support conceptual understanding and problem analysis. Rather than preparing for an AP exam, this course prioritizes making calculus accessible and relevant, equipping students with the skills to apply mathematical reasoning beyond the classroom.

**AP CALCULUS AB\*** (02124)

**Recommended Grade level:** 12

**Required Prerequisite:** Precalculus with a grade of C or better

**Description:** This class covers the beginning of calculus. Topics covered include functions, limits, continuity, the definition of the derivative, differentiation rules for elementary functions, trigonometry functions, logarithmic and exponential functions. Applications of the derivative are covered extensively. Students learn how to find antiderivatives and solve applications that involve the definite integral, such as area and volume. This course also includes extensive work in preparation for the Advanced Placement Exam, including use of a graphing calculator. Students may earn subject and/or unit credit at the college level by the successful completion of this course and the AP exam in May.

**MATH 105 - (MATH FOR LIBERAL ARTS)^ (02126)**

**Offered:** Semester-long course planned as a Fall 2025 offering. 4 unit course.

**Recommended Grade level:** 10 - 12

**Recommended Prerequisite:** Integrated Math 3, Mathematics 083 or Mathematics 084 with a minimum grade of C or equivalent skills as measured by placement into Mathematics 105 according to the Santa Ana College Mathematics Department's placement standards.

**Description:** An overview of mathematics for the liberal arts student. Topics will include problem solving, financial management, probability, statistics, and selected other topics such as set of theory, geometry, logic, mathematical modeling, and the history of mathematics.

**MATH 140 - (COLLEGE ALGEBRA)^ (02125)**

**Offered:** Semester-long course planned as a Spring 2026 offering. 4 unit course.

**Recommended Grade level:** 10 - 12

**Recommended Prerequisite:** Mathematics 084 with a minimum grade of C or equivalent skills as measured by placement into Mathematics 140 according to the Santa Ana College Math Department's placement standards.

**Description:** Survey of advanced topics in algebra: equations, inequalities and functions involving polynomials, rationals, exponentials, and logarithms with applications and graphing; sequences and series.

## SCIENCE

	7th Grade	8th Grade	9th Grade	10th Grade	11th Grade	12th Grade
College Prep	Science 7	Science 8	Environmental Science*	Biology or Botany*	Chemistry*	Science Elective
Honors	Science 7 Honors	Science 8 Honors	Environmental Science Honors*	Biology Honors or Botany Honors*	Chemistry Honors*	Science Elective

**SCIENCE 7 (53237/53237H)**

**Grade level:** 7

**Description:** This course builds on previous years of scientific inquiry and typically includes subject matter from several strands of science, with a focus on physical and life science. The course emphasizes critical thinking, data analysis, and communication skills to help students develop a deeper understanding of the natural world. Students

will engage in lab investigations, interactive activities, and STEM-based challenges that encourage curiosity and foster scientific literacy. This integrated approach builds a solid base for future science learning while making connections across disciplines.

### **SCIENCE 8** (53238/53238H)

**Grade level:** 8

**Prerequisite:** Science 7

**Description:** This hands-on course combines core science topics—such as forces and motion, energy, matter, and ecosystems—with real-world engineering challenges. Students will apply the engineering design process to design, build, test, and refine solutions, developing critical thinking and STEM skills through collaborative, project-based learning.

### **AP COMPUTER SCIENCE PRINCIPLES\*** (10019)

**Grade level:** 9 - 12

**Description:** AP Computer Science Principles is an introductory college-level computing course that introduces students to the breadth of the field of computer science. Students learn to design and evaluate solutions and to apply computer science to solve problems through the development of algorithms and programs. They incorporate abstraction into programs and use data to discover new knowledge. Students also explain how computing innovations and computing systems—including the internet—work, explore their potential impacts, and contribute to a computing culture that is collaborative and ethical.

### **ENVIRONMENTAL SCIENCE\*** (30621/30621H)

**Grade level:** 9th Grade

**Description:** Students receive credit for two separate classes, Environmental Science and Intro to Design. Students work on projects that blend scientific content while applying design principles to complete group projects.

### **BIOLOGY\*** (03051/03051H)

**Grade level:** 10th-grade class, unless the student is a Biology transfer

**Recommended Prerequisite:** Environmental Science, or Biology transfer from another school

**Description:** This course covers the fundamental principles of life sciences. Students learn about the structure and function of cells, genetics and inheritance, evolution, ecology, and the diversity of life forms. The course emphasizes student scientific inquiry, critical thinking, and problem-solving skills through laboratory experiments, group projects, and individual research.

**BOTANY\*** (03058/03058H)**Grade level:** 11-12**Recommended Prerequisite:** Environmental Science

**Description:** In this course we will take a more detailed look at the physiology and function of plants and fungi. We will learn how to identify, propagate, and perform many lab and investigative techniques to gain a deeper understanding of plants and fungi. There will be many labs so the use of a lab notebook and lab equipment will be a common occurrence and students must be ready to use safety and laboratory equipment properly.

**BIOTECHNOLOGY\*** (03199T)**Grade level:** 11-12**Required Prerequisite:** Biology or Botany

**Description:** This course will cover topics in biotechnology research from basic lab techniques and proper use of personal protective equipment, to more advanced topics like recombinant DNA and the way pharmaceuticals get to market. This is intended for anyone thinking of a future in the medical or biological research fields. You will learn the use of standard laboratory equipment and procedures as well as how to work with model organisms used in research.

**CHEMISTRY IN THE COMMUNITY\*** (03108/03108H)**Recommended Grade level:** 11-12**Required Prerequisite:** Integrated Math I or equivalent

**Description:** Chemistry combines college preparatory chemistry topics with Earth Science applications. The courses will cover topics such as atomic structure, nomenclature, bond formation, chemical reactions, gases, reaction rates, thermodynamics and stoichiometric calculations with geochemical and biogeochemical applications. Students are expected to have a firm foundation in basic algebraic and problem solving skills.

**FORENSIC SCIENCE\*** (03203)**Grade level:** 9-12

**Description:** Forensic Science is the application of science (chemistry, physics, and biology) to the criminal and civil laws that are enforced by police agencies in a criminal justice system. It includes the investigation of fingerprinting, fiber analysis, ballistics, arson, trace evidence analysis, poisons, drugs, blood spatters, and blood samples. Students are taught the proper collection, preservation, and laboratory analysis of various samples.

**ESPORTS\*** (10152)**Grade level:** 9-12

**Description:** Dive into the thrilling intersection of gaming and technology with our Esports & Computer Science elective! This dynamic course explores the rich history and evolution of video games, from classic arcade hits to today's giant monoliths that dominate the competitive esports scene. You'll unravel the principles of game theory and creation, learn foundational computer science skills using Python, and gain insights into what makes popular video games tick. Perfect for 9th to 12th graders eager to level up their coding skills and strategic thinking while exploring the fast-paced world of gaming. Get ready to code, compete, and create!

## LANGUAGE OTHER THAN ENGLISH

	9th Grade	10th Grade	11th Grade	12th Grade
<b>College Prep</b>	Spanish 1*	Spanish 2*	Advanced Spanish*	AP Spanish Language & Culture*
<b>Honors</b>	Honors Spanish 1	Honors Spanish 2	Honors Advanced Spanish	N/A
<b>Advanced Placement</b>	AP Spanish Language & Culture*			
<b>Electives</b>	Spanish Maintenance (Grades 7-8), American Sign Language 110 <sup>^</sup> , American Sign Language 111 <sup>^</sup>			

**SPANISH MAINTENANCE ("Spanish Culture & Identities")** (56037)**Grade level:** 7 - 8

**Recommended Prerequisite:** Must have been enrolled in a Dual Immersion program in elementary school.

**Description:** This is a course for students who went to a dual immersion elementary school. In the first semester, the class will cover many elements of the Spanish-speaking world through games, activities, & vocabulary-building exercises. In the second semester, the class will explore key historical and contemporary figures of the Chicanx, Latinx, Afrolatinx, and Indigenous communities.

**SPANISH I\*** (24052)**Grade level:** 9-12**Recommended Prerequisite:** None

Key   \* meets UC approval for "A-G"   <sup>^</sup> is a Dual Enrollment course

**Description:** This is a beginning course in Spanish intended for students with no previous knowledge of the Spanish language. This course is entirely based on the California Standards in Foreign Language Education which encompasses the instruction of communication, culture, connections, comparisons and communities. It involves the instruction of the grammar necessary to prepare students to effectively communicate by listening, speaking, reading, and writing. This course reflects a commitment to a student-centered, communicative, proficiency-based learning environment. Additionally, students connect their learning to the community in which they live and help them see the relationship between language, community, and career.

**SPANISH II\*** (24053/24053H)

**Recommended Grade level:** 8 -12

**Recommended Prerequisite:** Spanish 1

**Description:** This Spanish course is a continuation of Spanish 1. Students will continue to build their vocabulary and be introduced to more advanced grammar concepts. Students will also be presented with level appropriate literature and authentic language resources that will provide cultural perspectives and address all four basic language skills. This course reflects a commitment to a student-centered, communicative, proficiency-based learning environment. A continued focus of connecting their learning to the community in which they live will help them see the relationship between language, community, and career.

**ADVANCED SPANISH\*** (24054/24054H)

**Grade level:** 8 - 12

**Recommended Prerequisite:** Spanish 2 & above, or fluent native speaker (incoming Freshmen)

**Description:** In contrast to traditional course offerings of 'Native' and 'Non-Native', this course is integrated or detracked. This means that students of diverse language backgrounds will be enrolled in the same class. For some in this class, Spanish is their primary or first language learned. For others, it could be their second or third language learned. You could say this occurs in English courses in which not all students are 'native' to English.

**AP SPANISH LANGUAGE & CULTURE\*** (24064)

**Recommended Grade level:** 9 - 12

**Recommended Prerequisite:** Advanced Spanish (70%+), Spanish 2 (80%+), teacher recommendation

**Description:** The AP Spanish Language and Culture course is a rigorous course that is taught exclusively in Spanish and approximately equivalent to a 5th or 6th semester university course. The course requires students to improve their proficiency across the

three modes of communication (interpretive, interpersonal, and presentational). The course focuses on the integration of authentic resources including online print, audio, and audiovisual resources, as well as traditional print resources that include literature, essays, and magazine and newspaper articles with the goal of providing a rich, diverse learning experience. Students communicate using rich, advanced vocabulary and linguistic structures as they build proficiency in all modes of communication toward the pre-advanced level as defined in the ACTFL Performance Guidelines for K-12 learners.

## VISUAL & PERFORMING ARTS

### **3D DESIGN (55175)**

**Grade level:** 8

**Description:** Students will learn the basics of additive sculpture and subtractive sculpture, as well as fiber art and installation art. Students learn the history behind each type of sculpture they create and strengthen their analytical thinking skills with thoughtful art criticism and appreciation. Through a series of hands-on experiences using a wide variety of materials and techniques, students use the elements and principles of design to translate ideas and images into 3 dimensional works of art.

### **ART 7 (55187)**

**Grade level:** 7

**Description:** This year-long art course is designed to teach students about the basics of drawing, painting, and 3 dimensional art. Students will become familiar with the elements and principles of art. They will explore a range of design techniques using various art materials. Students will learn how to visually share ideas through the creative process as they are encouraged to develop their own art style through this course.

### **ADVANCED ART (55154)**

**Grade level:** 8

**Recommended Prerequisite:** Art 7

**Description:** Students will learn advanced drawing techniques, including portraiture and drawing the human figure. They will study the basics of watercolor painting, will create artwork with unique materials and some sculpture and will practice the creative process and come to know art as a tool of communication and self-expression. Through a series of hands-on experiences using a wide variety of materials and techniques, students will use the elements and principles of design to translate thoughts and feelings into 2 and 3 dimensional works of art.

### **INSTRUMENTAL STUDIO (MIDDLE SCHOOL ORCHESTRA & BAND) (55106)**

**Key** \* meets UC approval for "A-G" ^ is a Dual Enrollment course

**Grade Level: 7 - 8**

**Description:** Middle School Orchestra provides young musicians with a comprehensive introduction to instrumental performance and ensemble playing. Open to all orchestral instruments—strings, woodwinds, brass, and percussion—this course focuses on building foundational music skills, including note reading, rhythm, tone production, intonation, and ensemble collaboration.

Students will learn proper playing techniques for their chosen instruments while exploring a diverse repertoire of classical, folk, and contemporary works. The course emphasizes discipline, musical expression, and teamwork as students prepare for performances throughout the year. In addition to developing technical proficiency, students will gain a basic understanding of music theory, history, and ear training to enhance their overall musicianship.

**VOCAL ENSEMBLE (CHOIR PUPS) (55111)****Grade level: 7-8**

**Description:** Middle School Choir is a performance-focused course for students in grades 7-8 who love to sing or want to try it out for the first time. Students are required to participate in in-class performances and main-stage productions, which are integral to the learning experience.

This all-levels ensemble builds foundational vocal skills, including pitch accuracy, tone production, and music reading. Students will sing a variety of music, from folk songs to popular tunes, in a supportive and encouraging environment. Regular performances allow students to showcase their growth and creativity while developing confidence as performers.

**BEGINNING CHOIR (CHOIR WOLVES)\* (05111)****Grade level: 9-12**

**Recommended Prerequisite:** None

**Description:** High School Choir is a performance-based course open to all students in grades 9-12 who love to sing and want to improve their vocal skills. Students are required to participate in in-class performances and main-stage productions as part of their learning experience.

This welcoming ensemble focuses on building vocal technique, music literacy, and ensemble performance while exploring a variety of musical styles, including classical, pop, folk, and contemporary works. Students will work together to prepare for concerts and events throughout the school year, gaining confidence and developing their musical potential.

**ADVANCED CHOIR (SAMUELI SINGERS)\* (05121)**



**Grade level:** 10-12

**Required Prerequisite:** Audition to be admitted

**Description:** Advanced Choir is a premier auditioned ensemble designed for experienced singers in grades 10-12. This course is performance-focused, with students required to participate in in-class performances, main-stage productions, and community events. The choir performs a diverse repertoire spanning classical, jazz, pop, world music, and more, emphasizing vocal technique, musicality, and ensemble collaboration.

Students represent the school at on- and off-campus functions, including concerts, festivals, and community events, and participate in off-campus field trips to workshops and competitions. Dedication to rehearsal and performance excellence is mandatory, as this group serves as an ambassador for the school's music program.

### **PIANO/GUITAR/DRUMS (PGD)\* (05105)**

**Grade level:** 9-12

**Description:** Instrumental Band Lab is a performance-driven course where students learn the basics of piano, guitar, and drums and collaborate to form bands that prepare for in-class and main-stage performances. Participation in all performances is mandatory, as they are central to the course experience.

Students begin by developing foundational skills on each instrument, including chord progressions, rhythm patterns, and improvisation techniques. They are then grouped into bands to arrange and perform songs from various styles and time periods, emphasizing teamwork, creativity, and the joy of live performance.

### **DIGITAL PHOTOGRAPHY\* (05167)**

**Grade Level:** 9 - 10

**Description:** Digital Photography will teach students the fundamentals of the art of photography. Students will receive basic instruction and demonstration from their facilitator, they will be given reading and writing assignments, and they will spend ample time showing and reviewing each other's photographs, both in small groups and in front of the entire class. Students will learn basic composition guidelines, how to change lighting with each shot, and a complete understanding of cameras and their functions, modes, and settings. Each student will take pictures, edit their pictures, enhance their pictures, and publish their pictures as part of an online portfolio. Cameras and tripods are provided for all students on a 1:2 ratio. Most importantly, students will develop an understanding of what makes a successful photo and what does not.

### **LATIN ORCHESTRA\* (05101M)**

**Grade Level:** 9 - 12

**Description:** Latin Orchestra immerses students in the vibrant and dynamic musical traditions of Latin America. This high-energy ensemble course is open to all orchestral instruments, including strings, woodwinds, brass, and percussion. Students will explore genres such as salsa, mariachi, cumbia, tango, and samba, focusing on the unique rhythms, melodies, and instrumentation that define these styles.

The course emphasizes ensemble collaboration, stylistic interpretation, and improvisation techniques. Students will also learn about the cultural and historical contexts of Latin music, gaining a deeper appreciation for its diversity and influence. Repertoire will include traditional and contemporary works, and students will have opportunities to arrange and perform their own compositions inspired by Latin styles.

### **MUSIC APPRECIATION\*** (05118)

**Grade Level:** 9 - 12

**Description:** Music Appreciation is a student-centered, discussion-based course that explores the impact, history, and cultural significance of music across genres and time periods. Designed for students of all musical backgrounds, this non-performance class encourages critical thinking and personal exploration of music through listening, analysis, and creative projects.

Students will have opportunities to shape the course content by selecting musical topics of interest, from classical to contemporary music, film scores to world music, and beyond. Through guided listening, historical context, and multimedia analysis, students will develop a deeper understanding of how music influences and reflects society.

### **MUSIC INDUSTRY (STUDIO)\*** (05123)

**Grade Level:** 9 - 12

**Description:** Music Industry Studio offers students an in-depth exploration of the music industry, blending historical study, career exploration, and hands-on application. Students will trace the evolution of the music industry, from its origins to the digital age, gaining insight into how technology, culture, and commerce have shaped music production and distribution.

Throughout the course, students will explore a wide range of music industry careers, including both performance-based roles (such as recording artists, composers, and live performers) and non-performance roles (such as producers, engineers, managers, and marketers). Guest speakers, case studies, and collaborative projects will provide students with practical knowledge and industry connections.

The course culminates in a capstone project: a student-run recording studio experience. Working collaboratively, students will take on the roles necessary to manage a recording session—from planning and production to marketing and distribution—offering an authentic glimpse into the music business.

### **MUSICAL THEATER\*** (05060)

**Grade Level:** 9 - 12

**Course Description:** The Music of Theater is a dynamic course that explores the rich history, cultural significance, and artistic impact of stage musicals. Students will journey through the evolution of musical theater, from its early roots to modern productions, analyzing key works, composers, and movements. Through the lens of music history, students will study how musical styles and societal trends shaped theatrical storytelling.

This course emphasizes practical application through vocal performance, acting techniques, and directing. Students will develop their stage presence, learn ensemble collaboration, and experiment with creative direction in a workshop environment. By engaging in analysis, performance, and production, students will gain an in-depth understanding of how music and theater combine to create impactful narratives.

## ATHLETICS

	7th Grade	8th Grade	9th Grade	10th Grade	11th Grade	12th Grade
Required Courses	PE 7	PE 8	P.E. & Health 9	Physical Education 10	N/A	N/A
Electives	N/A	N/A	Intro to Dance, Beginning Yoga	Intro to Dance, Beginning Yoga, Advanced Yoga	Strength & Conditioning, Intro to Dance, Beginning Yoga, Advanced Yoga	Strength & Conditioning, Intro to Dance, Beginning Yoga, Advanced Yoga

### **PE 7 (58037)**

**Grade level:** 7

**Description:** First year of middle school physical education, including health.

### **PE 8 (58038)**

**Grade level:** 8

**Description:** Second year of middle school physical education, including health.

**P.E. & HEALTH 9 (08001)**

**Grade level:** 9

**Description:** First year of physical education, including health.

**PHYSICAL EDUCATION 10 (08002)**

**Grade level:** 10

**Description:** Second year of physical education.

**STRENGTH & CONDITIONING (08005)**

**Grade level:** 11 - 12

**Description:** Strength and Conditioning is a FUN outgoing class that will leave you feeling refreshed and energized for the rest of the day. Strength and Conditioning is a full body workout that helps you develop the skills that focus on mind, mobility, stability, strength, endurance, power, speed, agility and performance.

**BEGINNING YOGA (Hatha Yoga I)<sup>^</sup> (08013)**

**Offered:** Offered through dual enrollment partnership with Orange Coast College

**Grade level:** 9 -12

**Description:** Yoga postures, breathing, concentration/meditation, and relaxation techniques will be presented as a method of personal development encompassing body, mind, and spirit. Graded or Pass/No Pass option. Transfer Credit: CSU; UC.

**ADVANCED YOGA (Hatha Yoga II)<sup>^</sup> (080131)**

**Offered:** Offered through dual enrollment partnership with Orange Coast College

**Grade level:** 10 -12

**Description:** Yoga postures, breathing, concentration/meditation, and relaxation techniques will be presented as a method of personal development encompassing body, mind, and spirit. Intermediate yoga poses will be introduced and practiced. Graded or Pass/No Pass option. ADVISORY: KIN A128 or instructor permission. Transfer Credit: CSU; UC

## ELECTIVE COURSES

**ADMINISTRATIVE LEADERSHIP\* (22103)**

**Grade level:** 9-12

**Description:** This course is designed to help students develop leadership skills through project-based learning activities. The course focuses on service-oriented leadership and emphasizes the importance of giving back to the community. Students will learn

**Key**   \* meets UC approval for "A-G"   <sup>^</sup> is a Dual Enrollment course

about different leadership styles, communication strategies, and problem-solving techniques. They will also explore the role of ethics in leadership and develop a personal leadership philosophy.

**ASB LEADERSHIP\*** (022101)

**Grade level:** 7 - 12

**Recommended Prerequisite:** Elected or appointed student officers with permission from ASB advisory only

**Description:** The purpose of the leadership class is to fulfill the duties of the Associated Student Body Government. Each student has a specific role to fulfill within the larger council of students based upon their elected or appointed office. Students will plan and implement activities for all students, as well as participate in issue discussions that affect members of the student body. Students will learn and apply parliamentary procedure in council meetings. Students will be primarily evaluated based upon their job effectiveness and their participation in council activities.

**ETHNIC STUDIES 150^** - INTRODUCTION TO ETHNIC STUDIES (04250)

**Offered:** Semester-long course planned as a Fall 2025 offering.

**Grade level:** 10-12

**Description:** This course serves to broaden the ethnic and racial perspective of students interested in American culture and society. It encompasses a historical overview of the social, cultural, political, and economic aspects of four ethnic groups - Native Americans, African Americans, Chicana/o/@/x/e, and Asian Americans - in the United States. Emphasis is placed on the historical and contemporary relationships of these groups with each other and the rest of American society. Duplicate credit not granted for Ethnic Studies 101H.

**GEOGRAPHY 100^** - WORLD REGIONAL GEOGRAPHY (03006)

**Offered:** Semester-long course planned as a Spring 2025 offering.

**Grade level:** 10 - 12

**Recommended Prerequisite:** Environmental Science

**Description:** The study of major world political and natural regions. Course study includes location of the regions on earth, the physical and cultural elements that lend the regions their identities, and ways in which these elements relate to the regions' inhabitants and economies.

**GEOGRAPHY 140^** - CALIFORNIA GEORAPHY (03049)

**Offered:** Semester-long course planned as a Fall 2025 offering.

**Grade level:** 10 - 12

**Recommended Prerequisite:** Environmental Science

**Description:** A thematic approach to the state's issues, processes and topics relevant to the geography including climate, landforms, natural vegetation, water resources, cultural landscape, ethnic diversity, urban and agricultural regions, and the economy. This course explores the physical, and human landscapes that have evolved as a result of the human-environment interface.

### **PSYCHOLOGY 100<sup>^</sup> - INTRODUCTION TO PSYCHOLOGY (04254)**

**Offered:** Semester-long course planned as a Fall 2025 offering.

**Grade level:** 10 - 12

**Description:** An introduction to the major theories, methods, concepts, ethical issues, and findings in the major fields in psychology including (but not limited to): biological bases of behavior, perception, cognition and consciousness, learning, memory, emotion, motivation, development, personality, social psychology, psychological disorders and therapeutic approaches, and applied psychology.

### **ROBOTICS & AUTO\* (21009)**

**Grade level:** 10-12

**Recommended Prerequisite:** Engineering Pathway

**Description:** **Robotics** exposes students to the design, build and test of robots, basic tool use, soldering and programming as they build a relatively simple VEX claw-bot followed by a custom VEX robot that they design by analyzing the annual VEX game requirements. Students will also survey the wide reaching spectrum of robotics applications by watching videos and by doing research in the field of robotics. **Auto Tech** exposes students to the operation, repair, maintenance, history, performance, career opportunities and basic tool use. Students will look at the modern automobile from an Engineering perspective and learn detailed theory of engine performance. The course provides a solid understanding of how a car works and what it takes to keep it running. Additionally, students will learn the fundamentals of the operation of electric vehicles. Coursework includes in-classroom learning along with hands-on work with real vehicles and engines. **NOTE:** Curriculum includes some math! Your instructor, Mr. Polizzi was a certified auto repair technician and has worked in auto factories and repair facilities. Topics Include: Internal Combustion Engine, Transmission/Drivetrain, Brakes/Tires/Suspension, Maintenance, Electric Vehicle, Architecture, Automotive Tools

### **STUDENT STORE\* (012152)**

**Grade level:** 9 -12

**Description:** This course is a class where students learn the important lessons and business functions involved in running a successful school based business as well as the skills and attitudes required for any job. Students will study topics including but not

limited to: accounting, research, promotion, planning, managing, selling, marketing and more and will then put it into practice by running the student store before, during, after school and during home games and other activities.

### **WELLNESS (08053)**

**Grade level:** 9 -12

**Description:** This course is a hands on, community-centered course designed to help students improve attendance, develop practical life skills, and build habits that support personal and professional success! Through a blend of Social Emotional Learning (SEL), daily at-home skills, workforce readiness, and community exploration, students will strengthen their confidence, reliability, and engagement in school and beyond. Students will participate in projects that make a positive impact on themselves, the campus, and the local community, such as launching a coffee cart for staff, participating in wellness events, budgeting, visiting local businesses with grocery lists, or designing at home routines and environment. They will also learn strategies to manage stress, improve time management, strengthen communication, and set achievable goals. By the end of the course, students will leave with a portfolio of experiences, workplace skills, and community connections that prepare them for future education, employment, and personal growth.

### **YEARBOOK\* (11104)**

**Grade Level:** 10 - 12

**Prerequisite:** Successful completion of English 9 (both semesters)

**Description:** In this course, students will take on the real-world challenge of creating the school's yearbook from start to finish. Working collaboratively in specialized roles within Editing, Design, and Marketing — students will develop skills in writing, photography, graphic design, and promotional strategies. Students will gain experience in project management, teamwork, and meeting deadlines, making this an excellent opportunity to build both creative and professional skills. By the end of the course, students will have produced a polished, memorable yearbook that reflects the unique stories and achievements of their school community. Students will need to interact with athletics and extra-curriculars throughout the year and are expected to go to after school events for interviews, taking pictures, and writing about the experience.