

CENTER FOR ENTREPRENEURIAL LEADERSHIP

2025-2026
COURSE CATALOG



Department Chair: Ed Glassman (eglassman@sch.org)

The Sands Center for Entrepreneurial Leadership (CEL) provides unique learning opportunities that empower students to tackle any challenge using entrepreneurial thinking. These classes incorporate technology, design, and entrepreneurship in a hands-on, project-based fashion. At SCH Academy, entrepreneurship is far more than just business. It is a unique way to look at the world: a perspective that will move a student from thought to action—from “I wish this was better” to “I am going to make it better.” The skills and habits of mind that students will acquire through these CEL classes will help them to become entrepreneurial problem solvers.

What Classes Are Offered?

Students in 9th grade will be offered four Entrepreneurial Leadership course options, outlined in the section below. Ninth graders will pick two experiences. These classes will introduce students to a variety of entrepreneurial, design, and technology skills. In 10th grade, students will tackle a CEL Capstone Project—a student-defined project that utilizes key entrepreneurial skills in the pursuit of creating a product or service, a software application, a social entrepreneurial endeavor, or a creative project. In 11th and 12th grade, students can continue their entrepreneurial pursuits through a variety of classes offered by the New Media, Engineering, and History Departments, as well as the CEL Venture Accelerator program. CEL classes will meet three times in the 7-day cycle.

Required CEL Courses

Product Design

Grade 9; meets 3 times per 7 day cycle

Offered by the CEL and New Media Departments, this class introduces students to creative problem solving through design. Students build visual literacy skills and engage in the design process involving 2d drawing with Adobe Illustrator, and 3D modeling and prototyping with the laser cutter, vinyl cutter, heat press, and 3D printer. Throughout the semester-long course, students learn to identify problems and seek solutions in real-world projects that teach the basic skills of Product Design.

Smart Engineering Design

Grade 9; meets 3 times per 7 day cycle

This CEL course, offered by the Engineering Department, invites students to create products that integrate hardware and software together. Students will learn to program microcontrollers and read data from sensors to create interactive systems that sense their environment, make smart decisions, and act on the world. They will also use Computer-Aided Design (CAD) and Computer-Aided Manufacturing (CAM) tools to create their design, fostering a deep understanding of the dynamic interplay between engineering design and product realization. Get ready to embark on a hands-on journey into the world of Smart Engineering Design!

Business Fundamentals

Grade 9; required, meets 3 times per 7 day cycle

In this course, students will learn some of the fundamental skills for success in entrepreneurial ventures. We will begin by learning how to plan, analyze, and manage projects. Students will develop their "soft skills" such as collaboration and communication required for success in team environments. From there, we will begin the study of product development with a focus on small businesses and start-ups. This unit will familiarize students with some tools for idea generation and evaluation, culminating in the creation of a full plan for a product launch. Lastly, students will learn some of the basics of product marketing and brand management. This will include case studies of highly successful marketing campaigns and conclude with students developing their own marketing campaign for a product of their choice.

Introduction to Artificial Intelligence

Grade 9; meets 3 times per 7 day cycle

Discover the fascinating world of Artificial Intelligence (AI) through hands-on activities and creative projects designed for beginners. This course brings AI concepts to life with real-world applications in gaming, art, sports, and more. Train simple AI models, design chatbots, and explore cutting-edge tools while learning how AI is shaping our future. Dive into ethical questions and exciting possibilities as you develop the skills to create innovative, AI-driven solutions. By the end, you'll understand AI's transformative role and be ready to imagine new ways it can solve problems and inspire change.

CEL Capstone

Grade 10; meets 3 times per 7 day cycle

Students will pursue a project of their own design, utilizing the skills that they have acquired through their prior CEL experiences. With the guidance of a lead faculty mentor, as well as subject matter experts, students will work in small teams to design a product or service, a software application, a social entrepreneurial endeavor, or a creative project. The CEL capstone will culminate in a showcase event, where each student team will display, demonstrate, and present their work in a public forum.

CEL Electives

Cultivating Leadership

Grades 11, 12; fall semester; ½ credit, meets 5 times per 7 day cycle.

Cultivating Leadership is an essential course designed for high school students eager to explore and master elite leadership principles. This dynamic program goes beyond the classroom, delving into crucial topics like teamwork, positive mindset, resilience, goal setting, and overcoming failure.

We'll introduce foundational sports psychology concepts, such as situational leadership and group development, integrating knowledge from biomechanics, physiology,

kinesiology, and psychology. Understand how professional athletes, coaches, and teams incorporate psychological skill training (PST) to enhance performance.

We will discuss the burnout phenomenon and combat the fear of failure as we examine the many principles associated with building a winners mindset. Through a varied pedagogical approach consisting of class discussions, debates, movies, guest speakers, presentations, and more, we will all learn what it takes to reach our fullest potential, both in and out of the classroom.

The course emphasizes varied leadership styles crucial for building high-performing organizations. We'll explore advanced techniques like flow, positive self-talk, negative thought stopping, growth mindset, and visualization/imagery.

Tabletop Game Design

Grades 11, 12; fall semester; ½ credit, meets 5 times per 7 day cycle.

Tabletop gaming is a social pursuit that dates back at least five thousand years and continues to this day with a global industry that is valued at around thirteen billion dollars and growing. There has never been a better time to be a board game creator! This course will provide an understanding of the fundamental design principles used in the creation of modern board and card games. Students will gain practical experience with the tools, techniques, and concepts needed to build a tabletop game from scratch. We will examine four key aspects of the design process— mechanics, theming, playtesting, and rule development— with an emphasis on learning how each performs a vital role in building a good game system.

In the first half of the course, we will 'playtest' a variety of popular and critically acclaimed games that illustrate different aspects of mechanical and thematic integration. We will approach this task with an engineer's mindset, exploring how each part contributes to the overall functionality and playability of the game. Throughout the course, students will learn design practices and terminology, engage in written reflection, and perform small scale design challenges that parallel the exemplar. Once we have surveyed a wide range of turn, action, and resolution structures, students will work in teams to create a prototype and then playtest an original game. This process will involve collaboration, creativity, iterative testing, and the use of physical and digital modeling tools (such as the laser cutter, the 3D printer, and a digital playing card creator). Finally, students will have the opportunity to learn about the industry by attending a board game convention and/or speaking with a professional who is currently working in the industry.

Statistics and Financial Literacy

Full year course; 1 credit, meets 5 times per 7 day cycle.

Prerequisite: successful completion of PreCalculus/Trigonometry

Interpreting data and making informed financial decisions is something that no future citizen can avoid. We begin collecting and using data at very early ages to understand sports, business trends, and weather predictions. Financial decisions that we make early on in our lives can have positive and adverse effects on our quality of life as older adults.

In this full year course, you will become critical consumers of data while learning how to leverage this data and other mathematical concepts to make informed financial decisions. Within these contexts, you will engage with the financial topics of taxes, bank accounts, budgeting, investing, credit, paying for college, and insurance by leveraging key mathematical concepts and skills from algebra, functions, modeling, correlation, probability, and descriptive and inferential statistics.

The Psychology of Happiness

Grades 11, 12; spring semester; ½ credit, meets 5 times per 7 day cycle.

How do we find our own happiness? And how do we keep it once we have it? There is so much pressure and many misconceptions based around happiness. What does it mean to find purpose and be whole? What about the in-between? This class will incorporate research on positive psychology, the science of wellness and human behavior. Using project-based learning, students will explore mindfulness practices, the science of wellbeing, gratitude and the creation of healthy habits. Students will engage in a series of positive activities designed to give them a sense of how the theories can be applied to their own lives, and at the end of their study students will create a podcast explaining how they have come to define and explain happiness for themselves.

Venture Accelerator

Grade 10–12; fall/spring semester; ½ credit, variable meeting times per cycle.

Prerequisite: Submission of application prior to enrollment

The Center for Entrepreneurial Leadership's Venture Accelerator (CELVA) is now offered as an elective option for students in grades 10, 11, and 12. This semester-long experience is a forum for students to learn entrepreneurship by doing, where students have the opportunity to work on real ventures under the guidance and tutelage of accomplished entrepreneurs and professionals. Students will be accepted into this elective by application—submitting for-profit, non-profit, advocacy, and personal project ideas for consideration. Students may use the elective to continue their work on either a pre-existing venture or new venture. Outstanding work within the CELVA elective can result in departmental distinctions and seed funding grants.

Honors Business Principles and Personal Finance

Grade 10-12; Full year course; 1 credit, meets 5 times per 7 day cycle.

**Departmental Approval required for Honors*

This CEL course introduces students to the fields of entrepreneurship, marketing, finance, accounting, and management through real-world business applications, case studies, and project-based learning. This course teaches workforce-ready skills that prepare students for success in a range of careers and a variety of workplaces—small local businesses, the financial industry, a family business, a large corporation, or other types of businesses and nonprofits. Please note, this course is a Field Test of a new AP curriculum. Although students will not receive AP credit, they will have a hand in shaping a new curriculum that will be rolled out nationally during the 2026-2027 academic year.