

ENGINEERING ELECTIVES

Intro.Robotics/Exploratory Tech (TECH DESIGN A/B Valdez/Samayoa)

It is a prerequisite for Advanced Robotics Team or Advanced RC Racing Team. Taking class does not guarantee spot on team. Coaches will share team criteria with students.

The objective of this class is to introduce students to the many branches of engineering and to get an understanding of what they are: Civil, Mechanical, Electrical, and Chemical Engineering. Next, students will learn some basic techniques and principles on how Engineers take their ideas and turn them into reality (Design Process). Finally, students will dive deep into building robots using VEX ROBOTICS parts and will be introduced to block coding using VR.VEX. This is a 1 semester class, the next semester they will be put into Design and Modeling with Mr. Samayoa. (See description below)

The Design & Modeling (Intro to engineering) class provides an engineering curriculum for students that challenges, inspires, and offers variety of opportunities to create. Students will take part in various STEAM activities, challenges and projects. Most importantly they will learn to think like an engineer. Students will apply the design process to solve problems, create prototypes and understand the influence of creativity and innovation in their lives. Using design software and our 3D printers, students learn to bring their creativity to life by creating 3D virtual images/models of their prototypes. PLEASE NOTE: The class is a one-semester-long course on Design & Modeling. Students will then take Intro. to Robotics the following semester with Mr. Valdez.(See description above)

Exploratory Robotics A / Flight & Space B (Ms. Saracino)

Exploratory Robotics A - Students build, program and drive VEX IQ robots by following step-by-step directions. Students then expand their designs, builds and programs, applying their knowledge with creativity. This hands-on, introductory class begins with engineering challenges including making paper airplanes, building spaghetti/marshmallow towers, and creating balloon rocket thrusters

Flight & Space B - In the spring semester, students learn and apply Newton's Laws of Motion to paper airplanes and create gliders they test in a real wind tunnel. Then they apply their knowledge to space by making parachutes, jet straws, arrows, and bottle rockets. We study the current Mission to Mars, the Perseverance robot, the Ingenuity helicopter, and the International Space Station. Students apply their knowledge of flight & space using the Oculus Virtual Reality headset programs. This project-based class is very interactive and exciting. It is a prerequisite for Advanced Robotics.

Intro. to RC Race Challenge A/ Intro.Robotics (EXPLORATN SCI A/B/ Samayoa/Valdez)

Serves as a Prerequisite for Advanced RC Race Challenge Team. Taking class does not guarantee spot on team. Coaches will share team criteria with students.

Students will be introduced to engineering concepts as exhibited in the world of automobile racing. Students will become certified in three key aspects of race engineering: Driving, Drifting and mechanical engineering. Students will race RC cars against each other in the Irving race track. In this course, students will build an RC fuel cell car by applying their knowledge of fuel cell technology. Finally, students will explore the technology behind video games designed to enhance race car drivers performance.

This introductory computer science course empowers students to create authentic artifacts and engage with computer science as a medium for creativity, communication, problem-solving, and fun.

Exploration and Expression: Introduces students to computer science as a path to problem-solving, communication, and personal expression. This semester focuses on the visible aspects of computing and computer science, and encourages students to see computer science around them and how they can engage with it as a tool. PLEASE NOTE: The class is a one-semester-long course on RC Challenge. Students will then take Intro. to Coding the following semester with Mr. Valdez.(See description above)

Intro. to Game Design/Collaboration no prerequisite

This class will include in-depth training in one's communication and collaboration with others. Students will learn how to incorporate effective modes of communication and listening skills while simultaneously building literacy in Esports. They will also learn about the intersection of screen usage and mental and physical health.

Minecraft Game Design and Architecture - no prerequisite

Minecraft prepares students for the future workplace through coding challenges and collaborative building projects. During this one year course students will analyze architectural styles, reconstruct historical buildings with specific aesthetic criteria, and build modern buildings with a focus on architectural drafting and measurement. Students use coding fundamentals to complete projects and challenges. Student projects demonstrate the role of science, technology, engineering, art and mathematics in architecture. All students in the course are required to compete in the Minecraft Global Build Challenge.

VISUAL ART ELECTIVES

Intro to Art no prerequisite Mr. Ro

A basic exploratory course in the fundamentals of art introducing a variety of media and techniques utilizing different types of drawing, collage, mixed media, and printmaking. Students will learn the elements and principles of design. Students perceive and learn to analyze and respond to their own art, that of classmates and well known artists. They will gain understanding of its historical and cultural references.

Graphic Design. - Dequina

Students will learn to use the Principles of Design as they create using Adobe Photoshop, InDesign, Illustrator and Animate, as well as with non-digital media. Advanced students will be challenged to deepen their facility with design tools and principles and are welcome to take this class multiple times with all new projects each year. Course curriculum is project-based and includes photo editing, vector drawing, website publishing, logos, art, cartoon characters and topical studies.

Film Analysis & Appreciation w/ Ms. Garza-Silva

Movies are a fundamental part of American culture and one of our greatest forms of artistic expression. This course is designed to teach students how to analyze, discuss, and appreciate the art of storytelling through film. My objective is to teach students how to be discerning and thoughtful movie-goers by watching, talking, and writing about a diverse selection of movies. This class will emphasize the analysis and understanding of the following: basic movie genres, narrative fundamentals, theme, the style and evolution of movies and how they reflect our changing culture. By the end of the course, students should expect to know about various movie-making essentials such as directing, acting, sound, score, lighting, scriptwriting, etc. Students will be expected to be active listeners/viewers and critics. We will not be making/producing movies; that's Ms. Gavin's class. This is a prerequisite to Film Production.

Introduction to Drama - Ms. Wright

During this course, students will be introduced to the art of acting in order to develop an appreciation of the art and an understanding of how various acting techniques may be used to heighten one's awareness and as a tool for self-realization. Drama offers participants the chance to experience the excitement and rewards of theater arts while developing poise, social skills, confidence and the ability to work with others.

Beginning and Intermediate Strings: No prerequisite Mr. Cerrato

The beginning strings class is for students who have no prior experience playing a string instrument. The students are given the opportunity to try the different string instruments. Through an instrument selection process that considers physical attributes, timbral preference, and aural skills, we help students find the right instrument for them. Beginning string students can learn to play the violin, viola, cello, and string bass. The class will primarily use the A New Direction in Strings method book. From instrument care and maintenance to music literacy, students learn the fundamental skills necessary to perform on their instrument. Beginning string students perform in two concerts and two recitals for friends and family at Irving's auditorium. This is a prerequisite for Orchestra. If your child already plays an instrument, they must still take this course.

Beginning and Intermediate Band: No prerequisite Mr. Cerrato

The beginning band class is for students who have no prior experience playing a band instrument. The students are given the opportunity to try the different woodwind, brass, and percussion instruments. Through an instrument selection process that considers physical attributes, timbral preference, and aural skills, we help students find the right instrument for them. Beginning Band members can learn to play the flute, clarinet, alto saxophone, trumpet, French horn, trombone, tuba, and percussion instruments. From instrument care and maintenance to music literacy, students learn the fundamental skills necessary to perform on their instrument. Beginning string students perform in two concerts and one recital for friends and family at Irving's auditorium. This is a prerequisite for Orchestra. If your child already plays an instrument, they must still take this course.

Introduction to Piano/Keyboard - No prerequisite

This course is designed for students who wish to develop basic piano playing skills or expand on their existing skills. Time in class will be spent both on and off the keyboards. While playing students will be working individually and in small groups to master techniques of playing. Students will also learn music history and theory.

Beginning Spanish Elective - Ms. Holmes

Here are some things introduction to Spanish is designed for students to be able to do:

Introduce and describe themselves and others.

Say how they feel and talk about family relationships.

Describe customs in Latin countries.

Identify people and things.

Express likes and dislikes.

Give commands and advice.

Use travel vocabulary.

Describe nature and the environment.

NEW! Creative Writing and Improv Class

In this course, students will explore different forms of creative writing, such as short stories, poetry, memoir/narrative pieces, creative nonfiction, script writing, and journaling. Students will analyze mentor texts (the writing of published authors) as models for improving and expanding your creative writing skills and tools. Students will also get the opportunity to create skits and participate in fun skits.