Science & Engineering Academy (SEA) Presentation Series

The following programs are available to any Clark County High School class. If you are interested in having a presentation in your classroom (1 hour duration), please contact the listed presenter to make arrangements.

Program Titles and Descriptions	Audience Requirement
• Robotics – Past and Future Introduce the basic components of a typical robot by analyzing the horse and plow. Continue with examples of contemporary robotic applications, including a remote surgery robot where the human/computer is controller, electrical motors provide movement, and the scalpel is the implement.	• Interest in Technology
• Macro/Micro/Nanotechnology and the future Present the progression of human tools from Macro to Micro to Nano technology. Explore what has changed and what remains constant. What is Nanotechnology doing for us today, and what is its future?.	• Interest in Technology
• Waves – from Trigonometry to Electricity and Sounds Start with a description of a Sine Wave, then watch it on the oscilloscope and listen to it. Next, change the Sine Wave parameters (amplitude, frequency) to see and hear how this impacts electrical signals and sounds.	• Math Skills: Basic Algebra
• Inside a Computer Students will have the opportunity to see and discuss parts that comprise a typical computer. Also, the discussion will include the current directions and innovations of the computer industry; plus the fact that more than 95% of computers are embedded in other tools and appliances.	• Interest in Computers
• Renewable Energy (Solar/Wind/Bio) – Does it all make sense? Demonstrate and discuss the scientific basis for the various renewable energy programs. Present an overview of how we decide if the source is viable for application and what are its potential opportunities.	• Math Skills: Basic Algebra
• Engineering and Computer Science Education/Career Path Overview of Education and Career Opportunities/Challenges Pathways. The goal is to discuss possible careers and associated educational requirements.	• Interest in Engineering and Computers as potential Careers.