

Career and Technology Education  
Innovative Course Applications  
2007-2008

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- 1. Podcasting:** Podcasting is the newest form of information technology entering the workplace in our fast changing world. In the podcasting course students will learn the history and mechanics of podcasting through the use of the medium for information broadcast in industry and education.

A podcast is a web feed of audio or video files placed on the Internet for anyone to subscribe to. Podcasters' websites also may offer direct download of their files, but the subscription feed of automatically delivered new content is what distinguishes a podcast from a simple download or real-time streaming.

The Coppell ISD podcasting class will design, produce and deliver podcast to select subscribers (students and/or parents). The podcasting class will work closely with both the web mastering and broadcast journalism classes.
- 2. Lego Engineering:** The Lego Engineering course is an optional entry point into the Engineering Pathway. Students who know nothing of engineering can enter through this elective course. This course is designed to give students a fun and exciting look at engineering. Students will explore team work, problem solving, programming, and design through a series of activities.
- 3. Data Acquisition & Analysis:** The students will learn how to apply the engineering design process as they work in small groups on multiple short-term design problems and one long-term project. Techniques for acquiring a variety of engineering data will be investigated along with ways to analyze the data and draw conclusions as to the quality of the data, relationships between variables, and the methods used for data acquisition. Components of the [Infinity Project](#) curriculum will be implemented to teach the fundamentals of digital signal processing and automated data acquisition. Students will become familiar with standard scientific and engineering instrumentation and will work in the context of engineering design problems in disciplines such as mechanical, electrical, civil, materials, and biomedical engineering.

4. **Engineering Systems:** Students will learn how to apply the engineering design process as they work in small groups on multiple short-term design problems and one long-term project. Students will engage in projects that will demonstrate the integration of different systems. One such project will involve the manufacture and distribution of electrical power. This is a demonstration of the integration of mechanical and electrical systems. Students will also begin working on introductory projects and programs that will lead to their senior engineering project.