

PROJECT LEAD THE WAY ENGINEERING COURSES

Freshman	Sophomore	Junior	Senior
<div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;">T134 Energy Tech. & Small Engines Level 1-4 1/2 Unit</div> <div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;">T144 Product Tech. Level 1-2 1/2 unit</div> <div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;">T174 Electron Tech 1 Level 1-4 1 unit</div> <div style="border: 1px solid black; padding: 5px;">T166 Computer Aided Drafting & Graphics Level 1-4 1 unit</div>	<p>2008-09 School Year</p> <p style="color: red;">T202 PLTW IED</p> <p>Introduction to Engineering and Design</p> <p>Sophomores, Juniors and Seniors may apply. <i>1 unit 1 year</i></p>	<p>2009-10 School Year</p> <p style="color: red;">T302 PLTW POE</p> <p>Principles of Engineering</p> <p>Successful Completion of T202 <i>1 unit 1 year</i></p>	<p>2010-2011 School Year</p> <p style="color: red;">T402 PLTW DE</p> <p>Digital Electronics</p> <p>Not yet approved</p>

PROJECT LEAD THE WAY COURSE DESCRIPTIONS

T202 Introduction to Engineering Design

Introduction to Engineering Design™ is an introductory course which develops student problem solving skills with emphasis placed on the development of three-dimensional solid models. Students will work from sketching simple geometric shapes to applying a solid modeling computer software package. They will learn a problem solving design process and how it is used in industry to manufacture a product. They learn how to apply this model to solve problems in and out of the classroom. The Computer Aided Design System (CAD) will also be used to analyze and evaluate the product design. An emphasis is placed on analyzing potential solutions and communicating ideas to others. The techniques learned, and the equipment used, is state of the art and is currently used by engineers throughout the United States.

LEVEL: 2,3,4 One year One unit

PREREQUISITE: Concurrent enrollment in M217 Geometry or higher

New for 2009-2010.

T302 Principles of Engineering

Principles Of Engineering™ is the next course that follows T202 Introduction to Engineering Design in the engineering sequence. This course uses project-based, hands-on experiences to teach students the key elements and skills of engineering and technology-based careers. Concepts in this course include communication and documentation, design process, engineering systems, statics and strength of materials, materials and material testing in engineering, engineering for reliability, and kinematics. This course explores technology systems and manufacturing processes; addresses the social and political consequences of technological change. The application of physics, trigonometry, and applied sciences are integrated in the course to solve engineering problems. The Computer Aided Design System (CAD) will be utilized to assist in completion of projects. See the Project Lead the Way website at www.pltw.org for additional details.

LEVEL: 2,3,4 One year One unit

PREREQUISITE: Successful completion in T202 or Department Chair approval.