
PETERS TOWNSHIP HIGH SCHOOL

COURSE SYLLABUS: PRODUCTION TECHNOLOGY

Course Overview and Essential Skills

This course introduces students to production systems as they relate to manufactured products and constructed structures. These systems involve using inputs, and processes to create desired outputs. Students will change the form of materials using processing and management technologies to produce packaged products. They will also engage in the construction of a structure that meets societal needs. Activities are designed to give students the opportunity to develop skills in using tools and equipment while interacting with others to develop social and management skills.

Course Textbook and Required Materials

- Ritz, Hadley & Bonebrake. *Exploring Production Systems: Teachers & Student Resources Guide*. Davis Publishing, 1990
- DuVall, Barry J. *Contemporary Manufacturing Processes*. The Goodheart-Willcox Company INC. 1996
- Wright, Thomas; Henak, Richard. *Exploring Production*. The Goodheart-Willcox Company INC. 1985

Course Outline of Material Covered:

Unit or Topic	Concepts/Skills/Resources	Timeframe
THE TECHNOLOGICAL SOCIETY	<ul style="list-style-type: none"> • Describe characteristics of technological society • Differentiate between construction, manufacturing, and processing technologies 	Two Weeks
IMPACTS OF PRODUCTION	<ul style="list-style-type: none"> • Material resources of production • How resources are extracted from the environment • The transformation of raw materials 	Two Weeks
PRODUCTION TECHNOLOGY CYCLE	<ul style="list-style-type: none"> • List those benefits that result from production systems along with shortcomings • Discuss the pros and cons of renewable and non-renewable materials in relation to manufacturing 	One Week
PROBLEM SOLVING	<ul style="list-style-type: none"> • 5 Steps of creative problem solving • Technological problems and society today 	One Week

FUTURE IMPLICATIONS	<ul style="list-style-type: none"> • Discuss why industry introduces changes to its products • Identify what is meant by engineered materials 	Two Weeks
PRODUCTION ENTERPRISE	<ul style="list-style-type: none"> • Organize a company by electing officials and selecting levels of product development • Engineer a product by providing detailed sketches, prototypes construction, detailed • Drawings, and bill of materials • Develop a production operation and plant layout • Mass produce and package a product 	Nine Weeks

**Depending on the needs of the class or changes in the school year, the course outline is subject to change.*