



Northern York County School District

Curriculum Overview

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| Course: Furniture & Joinery | |
| Grade Level: 10-12 | |
| Approval Date: | Length of Time: 180 days / 1 credit |
| Course Description: Students must have completed Material Tech Woodworking to take this course. This full-year course is designed for students who wish to further their exploration of furniture design and joinery techniques. This class stresses the proper usage of wood joinery, shop safety, technical drawings, material lists, usage of tools and machines. Students incorporate fine woodworking techniques to complete furniture projects. Students will have two assigned projects assigned by the teacher followed by instructor-approved independent projects to meet the class requirements. | |
| Course Objectives: <ul style="list-style-type: none"> • Students will understand and apply shop and machine safety • Students will learn and utilize different types of wood joinery • Students will create technical drawings for each project including Multiview & Isometric drawings • Students will research and price materials for a project • Students will accurately and independently measure up to 1/16 of an inch • Students will create projects with different types of adhesive and fasteners | |
| Related Standards <u>Pennsylvania Academic Standards</u> <ul style="list-style-type: none"> • Apply scale as a way of relating concepts and ideas to one another by some measure • Apply appropriate instruments and apparatus to examine a variety of objects and processes <u>Pennsylvania Technology and Engineering Standards</u> <i>Nature and Characteristics of Technology & Engineering</i> <ul style="list-style-type: none"> • Use project management tools, strategies, and processes in planning, organizing, and controlling work. <i>Design Thinking in Technology and Engineering Education</i> <ul style="list-style-type: none"> • Apply principles of human-centered design. • Recognize and explain how their community and the world around them informs technological development and engineering design. | |
| Units: <ol style="list-style-type: none"> 1. Measurement 2. Shop, Machine & Tool Safety 3. Technical drawings (Multiview & Isometric) 4. Material Planning 5. Introduction to the Joinery Process 6. Introduction to Furniture Design | |
| Concepts: <ul style="list-style-type: none"> • Accurate Measurement with a steel ruler | Competencies: <ul style="list-style-type: none"> • Students will be following safety procedures for the general shop and |

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| <ul style="list-style-type: none"> • Shop, machine & tool safety in the woodshop. • Creating scale technical drawings (Multi-view & Isometric) • Coast estimates for projects. • Methods and systems of joinery systems • Fasteners • Non-mechanical fastening (adhesives) • Career Retention and Advancement: cooperation & teamwork, group interaction, budgeting, and time management | <p>machines/tools daily mandated by the state of Pennsylvania.</p> <ul style="list-style-type: none"> • Students will be able to measure up to 1/16th of an inch. • Students will be able to operate woodworking tools and machines such as the planer, jointer, table saw, drill-press, router machine, belt sanders, miter-saw, jigsaw, & bandsaw. • Students will be able to apply different types of wood joinery including Basic Butt, Tongue and Groove, Miter Butt, Half-Lap, Mortise and Tenon, Pocket Joint, Rabbet Joint and Dovetail. • Students will be able to figure out the amount of material they need for each project. • Students will create furniture projects with fasteners, joinery and/or different types of adhesives. |
| <p>Learning Activities:</p> <ul style="list-style-type: none"> • Teacher Demonstrations • Peer Teaching • Group Projects • Individual Projects • Project Videos and Techniques • Technical Drawings • Measuring | <p>Performance Tasks:</p> <ul style="list-style-type: none"> • Safety quizzes • Individual and team projects • Project Finishing • Project planning and execution |
| <p>Other Assessment Measures: Self-reflection, project testing, peer review</p> | |
| <p>Textbook/Primary Resources None</p> | |
| <p>Supplemental Resource Materials: YouTube Woodworking texts Teacher generated instructional material</p> | |