



Course Title or Content Change Forest Lake Area Schools

Date: **10/23/2017**

Department/Subject: **9th Grade Metals/Woods**

Person(s) initiating the request: **Senior High Industrial Technology Department**

Original Course Title:

Grades Course is offered: **9th grade woods, 9th grade metals**

School(s) Course is offered: **SW and Century**

Proposed New Course Title: **9th grade Metals/Woods**

Reason for proposed title change: **Combining existing 9th Grade Metals and 9th Grade Woods courses into one course**

If requesting proposed content change:

Original learner outcomes (course outline) –

https://docs.google.com/document/d/1MCZzBi4DMKLPXMudTG9Z04JogrIHk5Do19UC5ySq_zM/edit

<https://app.luminpdf.com/viewer/3Gb7KG7amGsTGbhim>

Proposed learner outcomes ([course outline](#)) –

Metals outline

https://docs.google.com/document/d/1MCZzBi4DMKLPXMudTG9Z04JogrIHk5Do19UC5ySq_zM/edit#

Woods outline

<https://docs.google.com/document/d/1pG0kZjWwLsYBoTEcAyV2NtvTzZbS75u3HEssRkts3bw/edit?ts=59ee374a>

Reason for proposed content change: **Two courses taught at each junior high are being combined into one hybrid course at the high school to offer similar course offerings to the 9th grade students.**

Signatures indicate agreement with the proposed change.

John-Paul Jacobson
Century/Southwest Principal

Kelly Lafean
Area Learning Center Principal



High School Principal

Diane Giorgi
Director of Teaching and Learning



FOREST LAKE AREA SCHOOLS

Inspire the Learner, Ignite the Potential

Course Title: 9th Grade Metals

Course Number:

Grade Level: 9

Credit Hours: .5

Course Description

This course is designed for 9th grade students who are interested in obtaining basic knowledge about both hot and cold metals. During this course, students will study safety procedures, metal classification, hand and power tools, sheet metal, hot metal and other areas associated with metals. A variety of projects will be constructed in both hot and cold metals.

Prerequisite:

Articulated Agreements / College Credit(if applicable):

Alignment with Minnesota Academic Standards or national/state contest standards:

Specific Course Learner Outcomes:

Learner Outcomes:

1. Students will develop a strong work ethic while applying a constant concern for safety while working in the metal shop.
2. Demonstrate basic skill by using metals shop equipment.
3. The student will understand pattern design and layout procedures.

Last Updated 9-20-17

4. The student will construct several projects using hot and cold metal techniques.
5. The student will become aware of career opportunities in metalworking.
6. The student will become aware of several uses of metals in today's market and construction.

Course Outline with Pacing:

Course Content:

- I. General Safety
 - A. General Safety Rules
 - B. Safety in the shop
 - C. Equipment Safety

- II. Classifying Metals
 - A. Metal Classifications
 - B. Safety Precautions for Handling Metals
 - C. Identifying Types and Shapes of Metals
 - D. Measurement of Metals and Standard Shapes

- III. Planning a Project
 - A. Understanding a drawing
 - B. Developing a prototype

- IV. Layout Techniques
 - A. Tools
 - B. Procedure

- V. Sheet Metal
 - A. Hand tools
 - B. Machines
 - C. Spot welding
 - D. Safety

- VI. Drills and Drilling Machines
 - A. Hand and machine drills
 - B. Safety

- VII. Forging
 - C. Safety

- VIII. Measurement
 - A. Measuring Instruments
 - B. Gages
 - C. Inspection Layout

- IX. Heat Treatment
 - A. Procedures
 - B. Safety

- X. Careers in Metalworking

Additional Information:

Student activity may change from room to room within the building due to course numbers and availability of rooms.

Text used- Modern Metalworking



FOREST LAKE AREA SCHOOLS

Inspire the Learner, Ignite the Potential

Course Title: Woods

Course Number:

Grade Level: 9

Credit Hours: .5

Course Description

This course is designed for 9th grade students who are interested in obtaining basic knowledge about Woodworking. During this course, students will study safety procedures, wood classification and characteristics, hand and power tools, and other areas associated with woodworking. A variety of projects will be constructed.

Prerequisite:

Articulated Agreements / College Credit(if applicable):

Alignment with Minnesota Academic Standards or national/state contest standards:

Specific Course Learner Outcomes:

Learner Outcomes:

1. Students will develop a strong work ethic while applying a constant concern for safety while working in the wood shop.
2. Demonstrate basic skill by using wood shop equipment.
3. The student will understand plans and procedures.

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4. The student will construct several projects using woodworking techniques.
5. The student will become aware of career opportunities in woodworking.
6. The student will become aware of several uses of woodworking in today's market and construction.

Course Outline with Pacing:

Course Content:

- I. General Safety
 - A. General Safety Rules
 - B. Safety in the shop
 - C. Equipment Safety

- II. Woods
 - A. Classifications
 - B. Characteristics
 - C. Lumber and sheet stock differences
 - D. Squaring techniques

- III. Plans
 - A. Reading plans
 - B. Procedures

- IV. Equipment
 - A. Hand tools
 - B. Machines
 - C. Layout tools

- VI. Drills and Drilling Machines
 - A. Hand and machine drills
 - B. Safety

- VII. Measurement
 - A. Fractions
 - B. Tape measure
 - C. Read plans

- VIII. Finishes
 - A. Techniques
 - B. Applications

- X. Careers in Woodworking

Additional Information:

Last Updated 9-20-17

Student activity may change from room to room within the building due to course numbers and availability of rooms.

Text used- Modern Woodworking