

Lassen Community College Course Outline

GSS-98.04 Advanced Knife Making

1.0 Unit

I. Catalog Description

This course is designed to present basic techniques learned in the "Introduction to Knife Making," course. This course will deal with hollow grinding working with different metal types and handle materials.

Does Not Transfer to UC/CSU

6 Hours Lecture, 12 Outside of Class Hours, 34 Hours Lab, 52 Total Hours of Instruction Scheduled:

II. Coding Information

Repeatability: Take 1 Time

Grading Option: Pass/No Pass Only

Credit Type: Credit - Degree Applicable

TOP Code: 100900

III. Course Objectives

A. Course Student Learning Outcomes

Upon completion of this course the student will be able to:

Properly deal with hollow grinding, working with different metal types and handle materials.

B. Course Objectives

Upon completion of this course the student will be able to:

1. Describe hollow and flat grinding.
2. Construct fixtures to hold blades on machine tools.
3. Demonstrate flat/hollow grinding.

IV. Course Content

A. Steel types

1. Hardness and flexibility
2. Applications and shapes

B. Grain structure

1. Forging
2. Basic shaping
3. Grinding and heat treatment of steels as used in knives

C. Finishing of knife

1. Blades
2. Edge types and applications
3. Sharpening knife

D. Knife handles

1. Types and materials
2. Hilt
3. Styles
4. Applications
5. Fastening and finishing handles

E. Finish types

1. Importance of finish uniformity
2. Application of special finishes
3. Presentation of finished knife

V. Assignments

A. Appropriate Readings

Trade manuals will be the primary reference, sources may also include instructor handouts. Additional information resources will include product and use guides from industry manufactures to enhance the learning process. Recommended readings specific to this topic may be included.

B. Writing Assignments

Students will be required to complete a set of notes covering lectures, labs, and demonstrations. Notes will include appropriate diagrams, when applicable, for clarity of information. Assignments may be made involving repair, refinishing, and/or modifications to the studied firearm parts. Assignments will proximate problems actually encountered in the field. Performance levels must meet or exceed industry and/or shop specifications.

C. Expected Outside Assignments

See 'A' and 'B' above.

D. Specific Assignments that Demonstrate Critical Thinking

Assignments may include the design and fabrication of a tool, new ideas toward manufacturing techniques, new ways to assemble a knife, new modification techniques. Example: The stude will be told what a tool must do and then must design and fabricate the tool without being given dimensions or other information.

VI. Methods of Evaluation

The student will be evaluated on class participation and quality of finsihed product.

VII. Methods of Delivery

Check those delivery methods for which, this course has been separately approved by the Curriculum/Academic Standards Committee.

Traditional Classroom Delivery Correspondence Delivery

Hybrid Delivery

Online Delivery

Lecture and Demonstrations

VIII. Representative Texts and Supplies

Handouts relevant to the special topic.

Trade manuals will be the primary reference resource.

IX. Discipline/s Assignment

Gunsmithing

X. Course Status

Current Status: Active

Original Approval Date: 4/16/2001

Revised By: John Martin

Curriculum/Academic Standards Committee Revision Date: 11/15/2022