

# MFG 197 : FABRICATION I

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## Transcript title

Fab I

## Credits

4

## Grading mode

Standard letter grades

## Total contact hours

80

## Lecture hours

20

## Lab hours

60

## Prerequisites

MFG 104; MFG 105.

## Course Description

Introduces basic metal fabrication. Covers measuring and marking tools, flat pattern development, metal processing equipment and finishing of welded metal components.

## Course learning outcomes

1. Practice safe working habits in an industrial shop setting.
2. Apply basic principles of linear and angular measurement to develop flat patterns on metal.
3. Use basic measuring and processing tools in metal fabrication.
4. Execute appropriate basic welding processes in the assembly of fabricated metal components.
5. Apply different metal finishing methods.

## Content outline

1. Basic linear measurement
2. Basic angular measurement
3. Identification and use of measurement and layout tools
4. Fabrication tool safety and maintenance
5. Flat pattern development on metal
6. Basic metal cutting tools and applications
7. Metal processing machinery
8. Metal finishing tools
9. Welding process selection and application
10. Fitting, clamping and tack welding of materials
11. Finishing of fabricated metal components

## Required materials

This class requires the purchase of safety equipment, reference books, measurement equipment, and tools.