

G.M.C.S. Metals Processing Course Outline



Outcomes: Students will...

1. Understand safe procedures and recognize potential hazards
 - WHMIS
 - Lock Out Tag Out (LOTO)
 - Personal Protective Equipment (PPE)
 - Personal Safety
 - Safety Rules and Procedures
 - Safe Tool Operations
2. Demonstrate and understanding of applied mathematics, working drawings, layout and measurement
 - Use a variety of measuring devices accurately
 - Convert units of measure
 - Complete work to a pre-defined tolerance
 - Read, interpret, and make orthographic and isometric drawings
 - Use a variety of tools to make lines on metal (layout)
3. Skillfully use hand tools with metal
 - Safely use clamping devices, chisels, hacksaw, files, reamers, taps/dies and other common shop hand tools
4. Skillfully use stationary tools with metal
 - Safely use drills, grinders, cut off saws, lathes, and mills
 - Lathe/Mill operations: facing, knurling, turning, tapering, drilling, boring, parting, key seating
5. Identify career opportunities in the metals industry.

Students will spend time in class and in the shop (Theory and Practice) carrying out the curriculum outcomes.

Assessment:

40% Tests

40% Projects/Assignments & Observations/Discussions

20% Final Exam