<table>
<thead>
<tr>
<th>Level</th>
<th>Date</th>
<th>Task</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Many errors</td>
<td>Some errors</td>
<td>Satisfactory</td>
</tr>
</tbody>
</table>

# Manual Operations Benchmark
- #2a Hand tap a work piece
- #3a Drill a hole in a work piece

# Manual Operations Layout
- #3a Set up and utilize between centers turning
- #5c External threading (set up and external threading)
- #5d Internal threading (set up and internal threading)
- #5e Bore a hole to size within + /-.002
- #5f Utilizes indexing head for Milling / Drilling

# Vertical Milling set up and operations
- #7a Indicating the machine vise within .001
- #7b Indicating the machine head within .002 over width of table
- #7c Milling Parallel and Square within .002
- #7d Edge find and drill hole location within .002
- #7e Mill slot width and depth to within + /-.002
- #7f Bore hole location and size to within +/-.002
- #8a Utilize indexing head for Milling / Drilling

# Surface Grinding safety and grinding wheels
- #9a Set up, dress and utilize surface grinding wheel
- #9d Set up and cylindrical grind shaft to .001 parallel

# Drill Press Safety
- #10a Drill Press Safety
- #10b Drill Press Set up and Use

# CNC programming
- #11a CNC programming Mill (generate manually or G-code)
- #11b CNC Mill set up and operate
- #12a Utilize surface gage for general inspection with dial indicator
- #12b Utilize micro-hite for general inspection
- #12c Utilize intrimik for hole size measurement

# Process Control
- #13 a Process Control
- #14 Process adjustment
- #15 Process improvement

# General Housekeeping
- #16a Maintains machine clean up
- #16b Utilizes MSDS
- #16c Utilizes first Aid station
- #16d Utilizes eye wash

# Preventive Maintenance
- #17a Lubricates machine as instructed
- #17b Utilizes lock out / tag out

# Tooling Maintenance
- #18a Inspects measuring tools for accuracy

# Miscellaneous Machine operations and Material Handling
- #19a Utilizes saw and stock rack safely
- #19b Plans, prepares and executes heat treating process
- #19c Utilizes disc sander safely
- #19d Grinds and sharpens lathe tools bits as needed
- #19e Grinds and sharpens cutters as needed
- #19f Plans saw cuts and operates horizontal saw safely
- #19g Plans saw cuts and operates vertical saw safely
- #19h Inspects workpiece for hardness using Rockwell hardness tester

# Career Planning
- #21a Career Planning Resume
- #21b Career Planning Cover letter
- #21c Career Planning Application
- #21d Portfolio / photobook

# Computer Aided Drawing
- #22a Utilize Autocad for drawing
- #22b Utilize SolidWorks drawing
- #22c Utilize MasterCam