

Work Processes Schedule

MACHINIST

RAPIDS: 0296M

O*NET/SOC: 51-4041.00

REVISION DATE: 12/2014

Sets up and operates a variety of machine tools to produce precision parts and instruments. Includes precision instrument makers who fabricate, modify, or repair mechanical instruments. Fabricates and modifies parts to make or repair machine tools or maintain industrial machines. Applies knowledge of mechanics, shop mathematics, metal properties, layout, and machining procedures. Reads and understands blue prints, sketches and drawings.

Applicable Ratings/MOS

USMC MOS 2112, 2161

USCG None

USN MR

Related Instruction

Any trade related training school/courses totaling 576 hours.

Additional Requirement

None

Total Hours: **8000**

Skill	Description	Hours
A	<p>FUNDAMENTALS</p> <p>Demonstration of knowledge in all areas;</p> <ol style="list-style-type: none"> 1. Safety 2. First Aid and Rescue 3. Quality Assurance Program and Inspection 4. Hearing Conservation Program Fundamentals 5. Respiratory Protection Program Fundamentals 6. General Administration (Logs, Records and File Management) 7. Shop Fundamentals <ul style="list-style-type: none"> · Mathematics (general math through trigonometry) · Lathe Tools Cutters & Applications · Milling Cutters and Applications · Measuring Instruments · Blueprint Reading 	500
B	<p>ELEMENTARY BENCH WORK</p> <ol style="list-style-type: none"> 1. Filing and Fitting 2. Polishing, Lapping and Honing 3. DeBurring 4. Rough Grinding 5. Blue Print Reading 6. Layout Work 7. Assembling 	1000
C	<p>DRILL PRESS</p> <ol style="list-style-type: none"> 1. Set up and align jigs and fixtures 2. Set up single and multiple drill presses 3. Operate machine for drilling, tapping, reaming and counterboring operations. 4. Sharpening drills 	700
D	<p>MILLING MACHINES (HORIZONTAL AND VERTICAL)</p> <ol style="list-style-type: none"> 1. Set up and align fixtures 2. Facing, form cutting, end milling, slotting and profiling 3. Keyway cutting and straddle milling 4. Drilling, reaming, boring and tapping 5. Counterboring countersinking 6. Gear repair 7. Indexing and angular milling 	2300
	<p>LATHES</p>	

E	<ol style="list-style-type: none"> 1. Facing, turning, boring, and knurling 2. Center-drilling, drilling, reaming and tapping 3. Internal and external thread chasing 4. Recessing, tapering and contouring 5. Adjusting offsets 6. Chuck and bar work 7. Recessing 8. Threading 9. Facing and turning 10. Drilling and Boring 11. Cutoff 	2000
F	<p>PRECISION GRINDERS</p> <ol style="list-style-type: none"> 1. Set up machine, change wheels 2. Rough grinding 3. Finish grinding 4. Straight and taper grinding 	500
G	<p>SPECIAL WORK</p> <ol style="list-style-type: none"> 1. Fabrication of tools, jigs and fixtures 2. Heat treating 3. Inspection/Quality Assurance 4. Machinery maintenance and repair 5. Oxyacetylene welding equipment, spot welding and brazing 6. Tool grinding 7. Rockwell Hardness Testing 8. Hydraulic Press and Associated parts and tools 9. Bandsaw and Cutoff saw operations 	1000