

Effective: 9/21/2017	JOB SAFETY ANALYSIS	DEPT: CNS	LOCATION: Center for Neuroscience	JOB TYPE: Shop Worker
JOB FUNCTION	POTENTIAL HEALTH OR INJURY HAZARDS	SAFE PRACTICE, OR EQUIPMENT		PERSONAL PROTECTIVE EQUIPMENT (PPE)

Instructions for use of all tools- Preparation	<ul style="list-style-type: none"> • Trips/Falls • Flying Parts • Bodily Injury 	<ul style="list-style-type: none"> • Clean work area before starting. • Make sure area is well lit. • Secure and tighten all parts before starting. • Use proper tool accessories. • Check and replace any broken or damaged parts. 	<ul style="list-style-type: none"> • Long pants, Non-slip, Closed-Toe Shoes • Dust Mask • Goggles/Safety Glasses • Remove jewelry from hands and neck, tie back hair, roll up long sleeves and secure any other loose clothing that could potentially get caught in moving equipment.
Instructions for use of all tools- Use	<ul style="list-style-type: none"> • Fires or Electrical Shocks • Tangled Parts • Bodily Injury • Eye Injury • Back Strain 	<ul style="list-style-type: none"> • Don't operate tools in explosive atmospheres. • Grounded tools must be plugged into properly installed grounded outlets. • Do not force polarized plugs into an outlet if it won't fit. • Avoid body contact with grounded surfaces. • Don't expose power tools to rain or wet conditions. • Disconnect the plug from power source before making any adjustments or changing accessories. • Do not wear loose clothing or jewelry. • Tie long hair. • Wear goggles or any eye protection. • Do not overreach. • Keep feet shoulder length apart. 	<ul style="list-style-type: none"> • Long pants, Non-slip, Closed-Toe Shoes • Dust Mask • Goggles/Safety Glasses • Remove jewelry from hands and neck, tie back hair, roll up long sleeves and secure any other loose clothing that could potentially get caught in moving equipment.

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Instructions for use of all tools- After Use	<ul style="list-style-type: none"> Bodily Injury Electrical Shocks 	<ul style="list-style-type: none"> Keep sharp cutting edges clean. Lubricate tool, if necessary. Use air compression to clean tool, if necessary. Do not store tools in an area where water can enter. 	<ul style="list-style-type: none"> Long pants, Non-slip, Closed-Toe Shoes Dust Mask Goggles/Safety Glasses Remove jewelry from hands and neck, tie back hair, roll up long sleeves and secure any other loose clothing that could potentially get caught in moving equipment. 																
General machining and metal fabrication processes using stationary machine tools; (lathe, mill, drill press, and grinders)	<ul style="list-style-type: none"> Cuts, contusions, lacerations, from contact with point of operation or associated flying materials from work part. Hearing damage from audible noise above 90dB at a sustained level: <table border="1"> <thead> <tr> <th>Hours per day</th> <th>Sound level</th> </tr> </thead> <tbody> <tr> <td>8</td> <td>90dB</td> </tr> <tr> <td>6</td> <td>92dB</td> </tr> <tr> <td>4</td> <td>95dB</td> </tr> <tr> <td>3</td> <td>97dB</td> </tr> <tr> <td>2</td> <td>100dB</td> </tr> <tr> <td>1.5</td> <td>102dB</td> </tr> <tr> <td>1</td> <td>105dB</td> </tr> </tbody> </table>	Hours per day	Sound level	8	90dB	6	92dB	4	95dB	3	97dB	2	100dB	1.5	102dB	1	105dB	<ul style="list-style-type: none"> Students, staff, and faculty using the machine shop must have prior authorization and complete the CNS machine shop safety online training. Go to this link for training, https://cnssafety.ucdavis.edu/machine-shop-safety Use tools according to manufacturer's recommendation. Understand use of tools and procedures before commencing work. Use correct tool for the job and ensure that tools are in good condition before starting work. Report any defect tool or machine to Safety Manager. Use the guarding systems and shields. Do not defeat guarding systems 	<ul style="list-style-type: none"> Long pants, Non-slip, Closed-Toe Shoes Dust Mask Goggles/Safety Glasses Remove jewelry from hands and neck, tie back hair, roll up long sleeves and secure any other loose clothing that could potentially get caught in moving equipment. Wear hearing protection.
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Grinding	<ul style="list-style-type: none"> • Metal dust, silica dust • Noise 	<ul style="list-style-type: none"> • Use tools according to manufacturer's recommendation. • Understand use of tools and procedures before commencing work. • Use correct tool for the job and ensure that tools are in good condition before starting work. • Report any defect tool or machine to Safety Manager. 	<ul style="list-style-type: none"> • Long pants, Non-slip, Closed-Toe Shoes • Use dust masks or respirators as appropriate. • Goggles/Safety Glasses and Face Shields. • Remove jewelry from hands and neck, tie back hair, roll up long sleeves and secure any other loose clothing that could potentially get caught in moving equipment. • Wear hearing protection. • Use ear protection 				
Exposure to cutting fluid and fumes	<ul style="list-style-type: none"> • Dermatitis • Inhalation hazard 	<ul style="list-style-type: none"> • Limit skin exposure and wash affected area with soap and water. • Use ventilation when operation generates fumes. 	<ul style="list-style-type: none"> • May require use of a respirator. Please visit the informational link on the respirator fit program at http://safetyervices.ucdavis.edu/article/respiratory-protection-program 				

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Use of oils and lubricants	<ul style="list-style-type: none"> • Spontaneous combustion from wiping cloths saturated with oil • Slip hazard from spilled oil and cutting fluids 	<ul style="list-style-type: none"> • Dispose of oily cloths in safety can. • Keep work area clean. • Keep away from ignition sources. • Keep fire extinguishers up to date. • Store in flammable cabinets 	<ul style="list-style-type: none"> • Consult SDS's for details on recommended PPE.
Use of hand tools	<ul style="list-style-type: none"> • Cuts, abrasions, contusions from contact with point of operation 	<ul style="list-style-type: none"> • Use the proper tool for the job • Report unsafe tools to the Facility/Safety Manager 	<ul style="list-style-type: none"> • Wear safety glasses and face shields if there is a risk of flying debris. • Consult equipment user guides for any other PPE recommendations.
Hazardous materials	<ul style="list-style-type: none"> • Fumes from solvents, paint • Fumes and particulates from epoxy composite fabrication 	<ul style="list-style-type: none"> • Read and observe information from SDS's. • Use adequate ventilation. • Keep away from ignition sources. • Use approved respirator; training class and medical exam required before use. • Keep fire extinguishers up to date. • Cover exposed body surfaces when sanding epoxy composites • Store in flammable cabinets • Dispose waste according to UC Davis Hazardous Waste policies and procedures. 	<ul style="list-style-type: none"> • Observe recommended use of PPE from SDS's for chemical being used. • Consult Safety Net #50- Guidelines for the Selection of Chemical Resistant Gloves.