Appendix A: Student Machine Shop Safety Manual

A.1 General

1. Approved eye protection must be worn at all times in the shop area.
2. All injuries must be reported to the shop supervisor immediately.
3. Appropriate clothing is also required in the shop and when using shop equipment. Sandals and open toed shoes are prohibited. In addition, long sleeves are required when welding or observing someone weld. Loose clothing or long hair must be confined to prevent becoming entangled in the machines.
4. If you break a piece of tooling, discover broken tooling, or find machinery that is not operating correctly, notify the supervisor immediately. Students must comply with this rule in order to prevent injuries caused by broken or malfunctioning equipment. Hiding or concealing broken tooling only slows the replacement of that piece of tooling.
5. Tools and materials should not be left hanging over the edge of work benches or machinery because they may be knocked off causing injury or damage.
6. Hands are to be kept clear of moving parts while equipment is in motion. Machines must be completely stopped before handling moving parts or the work piece.
7. The safety guards are to be kept in place at all times, unless the shop supervisor gives you permission to remove them.
8. Only one person will operate a machine at anyone time.
9. You may not wear gloves while operating machinery. Holding objects with a rag near moving machinery is also not permitted. Gloves, rags, etc. can be easily caught in machines that are in motion, pulling the operator into the equipment.
10. Machinery may not be left running unattended. You must be at the controls of the machine you are using whenever it is in motion.
11. Clean machines, benches and work areas immediately after each use. Use a brush to clean up chips; then use a vacuum, followed by a rag if needed to clean up the remaining small particles. .
12. Ensure the safety of yourself and others by being aware of your surroundings. If you see someone committing an unsafe act, report it to the supervisor immediately. As the machine operator you are responsible for the safety of the people in your immediate area. It is your responsibility to look around and be sure that everyone within your range is wearing safety glasses. Likewise a welder must be sure not to start welding if people without welding helmets are watching him.
13. Keep the floor around your work area clean of cuttings and fluids such as cutting oil or water as to prevent slipping. If you spill any fluid you must clean it up immediately.
14. All chemicals brought into the shop must have a "Material Safety Data Sheet", which must be provided to the supervisor for the shop MSDS file.
15. All containers must be labeled as to their contents. Unlabeled containers of chemicals will be removed and disposed of. No chemicals or hazardous materials will be used until such usage meets all Office of Environmental Health and Safety regulations and also has approval of the shop supervisor.
16. Dispose of all chemicals and hazardous materials on job completion as required by the OEHS. Contact the Environmental Safety Office for disposal assistance at (471-3511).

17. If you have any questions about safety or the correct setup of any piece of equipment, do not hesitate to ask the supervisor for assistance.
18. Observers must not distract the operator of a machine as this may cause serious injury to the operator or the observers.
19. Observe the limitations of all machines.
20. Dirty shop rags must be placed in the red, covered metal container provided in the shop. Oily or otherwise contaminated rags littered around the shop are a fire hazard.
21. The machine shop is for physics projects and other departmental related projects only.
22. Whenever cutting or trying to clamp round stock in place, always use V-blocks and a vice in order to securely grip the material.

A.2 Hand Tools

1. Clean grease and oil from hands before using tools to prevent slipping.
2. To prevent injury or damage to your project use only tools that are in good condition.
3. Wear a face-shield when using a chisel, and be sure no one is in the area where chipped material will be flying.
4. Use tools only for the job that they were designed for. Screwdrivers are for turning screws; hammers are for striking objects; parallel bars are for holding material in place until clamped; etc....
5. A chisel or punch head that becomes mushroomed should be given to the supervisor for repair. Mushroomed heads can chip off and cause injuries.
6. Cut away from your hands and body when using a knife or sharp object.
7. Check the hammer or mallet handle before using to be sure the handle fits tightly into the head of the hammer.
8. Use a wrench on nuts and bolts, not pliers.
9. Use open-end or adjustable wrenches that fit the nut snugly to prevent slipping and injuring fingers or damaging parts.
10. Use the correct size tool for the job. That includes screwdrivers.
11. All power tools must be turned off and have come to a complete stop before they can be set down by the operator. NO EXCEPTIONS.

A.3 Metal Working Tools

A.3.1 Drill Press

1. Check the drill press head and table for security and condition before starting.
2. A center punch will help locate the hole to be drilled in the correct place.
3. Select the correct speed for the material and size drill being used.
4. REMOVE THE CHUCK KEY IMMEDIATELY AFTER TIGHTENING OR REMOVING A DRILL. Leaving it in the chuck can injure someone if the machine is turned on.
5. All work pieces must be held securely for drilling by using either a drill vise or C-clamps. A work piece that moves when being drilled can break the drill, and injure

the operator and destroy the work piece. Large work pieces must be set firmly against the left side of the drill press column so that if the drill "grabs" the work piece can not spin and cause injury to the operator or others. If the drill grabs the work piece and it is yanked loose of the clamps and begins to spin, maintain downward pressure with the press and turn off the power. Do not retract the drill as this would allow the work piece to be thrown from the press and may cause serious injury.

6. Hands are to be kept clear of the revolving spindle, chuck, drill and chips.
7. Always ease up on the feed or drill pressure as the drill begins to break through the work piece. Heavy feed pressure will cause the drill to dig in, and could damage the material being drilled, break the drill, or cause the work piece to spin.
8. Drilling soft materials such as brass, copper, or plastic is done with a drill ground differently than drills used for steel.
9. When drilling large holes drill a pilot hole with a small drill such as 1/8 inch and then step up in size to prevent drill chatter.
10. Be sure the drill press is stopped before removing the work piece, chips or cuttings.

A.3.2 Electric Drill (Hand Held)

1. Center punch the hole to be drilled.
2. Tighten the drill using the chuck key and remove the chuck key immediately.
3. Hold the drill motor firmly, and keep hands away from the revolving spindle and drill.
4. Use a larger drill if a larger hole is needed. Using side pressure on the drill to "wobble" out the hole to increase the diameter will only damage the drill and cause it to break.
5. Apply straight and steady pressure on the drill, and ease up on the pressure as the drill begins to break through the material.
6. With the motor still running back out the drill as soon as the hole is drilled.
7. Turn off the drill and hold firmly until it comes to a complete stop before laying it on the work bench.

A.3.3 Bench Grinder

1. Adjust the work rest to within 1/16 inch of the wheel face.
2. Stand to the side of the grinder, not in line with the wheels, turning on a grinder and while the wheels are accelerating, this is the most common time for a damaged wheel to fly apart.
3. Do not allow hands to come in contact with the grinding wheel while it is in motion.
4. Dress the grinding wheel when it is worn uneven or out or round.
5. Hold the work firmly, and make grinding contact without bumping or impacting the grinder.
6. Use only enough pressure to assure grinding, but not heavy pressure as this will only cause overheating and grinder damage. If the work piece begins to get warm, quench it in water.

7. Grind only on the face of the wheel. Grinding on the side can cause the grinder wheel to explode due to heat stress buildup.
8. Keep the work piece in motion across the face of the wheel.
9. Stone type grinding wheels are not for grinding aluminum, brass, or copper because the soft metal becomes embedded in the stone, overheats, and can explode.

A.3.4 Friction Saw

1. The work piece must be securely clamped. NO EXCEPTIONS.
2. The friction saw, like the grinder, is for steel only. Aluminum and other soft metals will build up on the blade and cause it to overheat and explode.
3. Supervisor must be present while operating.

A.3.5 Disc Grinder - Portable

1. You must wear a face shield as well as safety glasses when using the disc grinder.
2. Always be aware of the direction you are throwing the stream of sparks. It is your responsibility to be sure you are not throwing them on other people, in the vicinity of those without eye protection, or on potentially flammable items.
3. Like all other hand tools, the disc grinder must be stopped (not moving) before it can be set down.

A.3.6 Buffer (Wire or Cloth)

1. Hold the work piece firmly with both hands.
2. Keep hands away from the buffer while it is in motion.
3. Hold the work piece below center (horizontal axis) of the wheel.
4. Apply buffing compound sparingly to cloth buffers.
5. Using excessive pressure will cause the work piece to overheat and damage the surface.

A.3.7 Micro Flat

1. NEVER use the micro flat as a table, chair or workbench. It is a precision measuring device and should be treated as such.
2. Always keep the flat covered unless it is in use.
3. Before use, wipe the dust and grit off the flat with your hand, not a rag, a brush, etc. Your hand can feel the grit and whether you have cleared all of it from the surface.
4. While using the flat, do not place any objects or tool besides the height gauge and/or the work piece on the flat. Other tooling could chip the flat if set down roughly or at the edge.

A.3.8 Engine Hoist

1. NEVER work under anything hanging from a crane, or on a jack. Use jack stands capable of supporting the amount of weight necessary.
2. You must ask the supervisor for permission to use the engine hoist.

A.3.9 Band saw - Vertical

1. Use only the correct blade for the material being cut (fine blade for steel, coarser one for aluminum).
2. CAUTION: Stand to one side while doing power-on testing of blade tracking. Should the blade come off the wheels, or break, it could cause serious injury.
3. Adjust the blade guides and rollers properly, and adjust the speed. The upper saw guide should be 1/4 inch or less above the work piece.
4. Check the work piece to be sure it is free of defects (i.e. broken off tool bits, etc.)
5. Plan the cut so as to prevent backing out of a cut, as this will pull the blade off the wheels. Make relief cuts as needed.
6. Holding the work piece firmly, feed the work piece at a moderate rate.
7. Use a push stick when sawing small pieces.
8. When feeding a work piece into the band saw blade, your fingers should not be in line with the blade in case the work piece cuts faster than you expected.
9. A minimum of three teeth must be engaged in the work piece at all times or the teeth will be torn off the blade.

A.3.10 Band saw – Horizontal

1. All work pieces must be secured in the machine's clamp.
2. The movable jaw of the machine's clamp pivots about its center. Thus if your work piece extends less than half way through the jaws of the clamp, you must use a spacer on the other side of the pivot in order to prevent slipping.
3. Do not allow the machine to drop rapidly causing the blade to impact the work piece. Slowly lower the saw and let it gently engage the work piece.
4. A minimum of three saw teeth must be engaged in the work piece at all times. If fewer teeth are engaged then the force per tooth is so great that the teeth will tear off the blade.
5. Control the decent of the blade through the entire cut, do not allow it to cut through the material as fast as it can possibly go.
6. The horizontal band saw is a flood coolant machine; the fluid that flows over the blade is re-circulated. If the fluid is not flowing, then inform the supervisor immediately and it will be refilled.

A.3.11 Engine Lathe

1. Roll up loose sleeves, and do not wear loose clothes such as sweaters or neckties while operating the lathe.
2. Be certain the work piece is set up securely and tightly when using chucks and collets.

3. REMOVE THE CHUCK KEY IMMEDIATLY AFTER EACH USE. If the lathe were accidentally activated while the chuck key was still in the chuck, the key would become a very fast moving projectile and possibly cause serious injury.
4. Keep hands on the controls or at your side while the lathe is running.
5. Keep hands away from chips as they are very sharp and possibly hot.
6. Complete cuts that are close to the chuck or against a shoulder by hand feeding to prevent machinery or work piece damage.
7. Remove the tool holder and tool post before filing or polishing.
8. Never move the speed selector controls while the spindle is rotating.
9. Never push the reverse switch while a chuck is moving forward as this could cause the chuck to unscrew itself and fall off and cause serious injury.
10. Regulate the depth of cut according to the size and type of material.
11. Use tools that are properly ground for the particular job.
12. You may never check measurements or surface finishes of the work piece while it is spinning.
13. After you have chucked up your work piece and completed your tool setup, you must spin the chuck by hand to ensure that the jaws of the chuck and the work piece will not hit the carriage of the lathe or the tool rest.
14. Between Centers Turning.
    (a) Use the safety dog to drive work piece.
    (b) Clamp the tailstock securely.
    (c) Use only a live center
    (d) Counterbalance work piece on the faceplate if it is irregular in shape.
    (e) Stand to one side of the revolving faceplate to avoid being hit by flying objects.

A.3.12 Milling Machine

1. The milling machine is a precision piece of equipment so it is important not to damage the table. The table is not a workbench or a place to put tools.
2. Be sure you know how to stop the milling machine quickly before operating the machine.
3. Be sure the power feed controls are in their "Neutral" position before turning on the machine.
4. Handle cutters carefully. They are sharp. If they can cut metal, they can cut you.
5. Use a soft hammer or mallet to seat the work piece against the parallel bars or bottom of the vice.
6. Secure the work piece firmly in the vice or with appropriate clamps.
7. Check the work piece, milling machine table, and holding device for clearance of the quill during the cutting.
8. Set the machine for the proper depth of cut.
9. Select the correct spindle speed for the type of material and the cutter being used.
10. Select the proper direction of rotation for the cutter.
11. Feed the work piece against or opposite the direction of rotation of the cutter.
12. Keep hands on the controls while the machine is running.

13. Never try to feel the finished surface while the cut is being taken.

A.3.13 Sheet Metal Shear

1. Follow the manufacturer's specifications as to gauge the sheet metal that can be safely cut. Our sheer can cut up to .060 inch steel sheet or .080 inch aluminum sheet.
2. Keep fingers and measuring scales out of the way of the blade.
3. Do not cut round stock or anything except sheet metal in the sheer.
4. Place the sheet against the guide and then clamp it in position with the clamp on the machine.
5. The treadle is operated with one foot, and the other foot must be kept clear as the treadle comes down.
6. Return the treadle to the up position slowly with foot pressure. Do not let it make a rapid return.
7. Pick up the scrap pieces when you have completed cutting.

A.3.14 Sheet Metal Brake

1. Bend only sheet stock in the brake. No round stock.
2. Adjust the clamping bar correctly to suit gauge of metal being formed, and stand clear of all moving parts.

A.3.15 Throat-less Cutter

1. Keep fingers clear of the cutter, and handle cut material carefully as it may have sharp edges.
2. Do not cut round stock with this cutter.
3. Pick up waste once you have completed your cut.

A.4 Welding Tools

A.4.1 Oxygen (Acetylene Welding)

1. Cylinders must always be fastened with a chain or other suitable device as a protection against falling or rolling.
2. Keep the welding equipment free of oil and grease, and away from oily rags. When oil comes in contact with oxygen it will explode.
3. If leaks are detected in the equipment, they are to be reported immediately to the supervisor.
4. Adequate ventilation is needed in the welding area before beginning.
5. Keep ALL flammable material away from the work area.
6. Wear the appropriate welding goggles. Assistants and observers must also wear welding goggles.
7. Release the regulator pressure screw and open the cylinders slowly.
8. Open the acetylene cylinder 1/2 turn maximum.
9. The normal pressure setting for acetylene is 5 psi with a maximum of 15 psi.

10. The oxygen cylinder valve should be opened all the way as it is a double seating valve.
11. The normal pressure setting for oxygen is 10 psi with higher settings used for torch cutting.
12. Point the torch away from yourself and observers before lighting the torch.
13. Use a friction torch lighter (flint striker) to ignite the torch.
14. Close the acetylene valve first if the torch backfires.
15. Keep sparks and flames away from the gas cylinders and hoses.
16. Close both cylinder valves and then release the pressure from the lines when you have finished the job.
17. Hot metals are to be quenched rather than left lying on the table hot, or mark with chalk the word 'HOT' if air-cooling is desired.
18. Clean your work area when completed and put scrap metals in the appropriate container.

A.4.2 Electric Welding

1. Proper welding helmet, long sleeves or leather apron, long pants and leather gloves (or cotton gloves if TIC welding) are required to protect the welder and observers from eye and skin damage due to the intense ultraviolet (UV) radiation that emanates from the arc.
2. Do all welding in the welding area if at all possible. Shields and fire hazard precautions will need special attention if welding in other areas.
3. Check for adequate ventilation before welding.
4. Before you begin welding, you must set up the welding shields to protect others from the effects of the UV radiation on their eyes and skin. The shields are to be erected across the entrance to the welding area if the welding is being done in the welding area. If the work piece cannot be brought into the welding area then the shields must be encircling the welding being done.
5. Welding on zinc-plated metals is hazardous to your health, and can be fatal. Do not weld on zinc-plated metal (galvanized metal).
6. For assistance in setting up the welding equipment ask the supervisor.
7. After your weld is complete, quench the work piece in water or mark it "HOT." if an air cool is necessary.

A.4.3 Spot Welding

1. Open the water coolant valve to maintain a slow water flow.
2. Wear welding gloves and face shield when using the spot welder. Observers must be protected from flying sparks.
3. Prevent excessive "explosion" by proper preparation of work, correct setup, and operation of the spot welder.
4. Handle completed spot welded objects carefully as they may be hot and sharp.
5. The electrodes are hot and cool slowly after they have been used.
6. The electrodes should not be brought together unless a piece of stock is between them.
7. Should the electrodes need cleaning, ask the supervisor for help. Do not use a file.

A.5 Wood Tools

Before using any wood tools you must inspect your material for foreign metal objects, such as nails, screws, staples, etc.

A.5.1 Router (Portable)

1. Wear a face shield when operating the router.
2. Make certain the router bit is tightened before using the router.
3. The router cutter must be completely stopped before laying the router down on its side.
4. Do not stand the router on the cutter end when not in use.
5. Hold the router firmly with both hands before turning on the power.
6. Feed the router at a moderate rate; too slow a feed rate will cause burning of the wood, too rapid a rate will produce a rough splintery surface.

A.5.2 Saber Saw

1. Select the proper blade for the material to be cut, and secure the blade in the saw before plugging in the electric cord.
2. Use a relief cut on corners to prevent binding or pinching the blade which will cause the blade to break.
3. Hold the saber saw firmly against the work piece to prevent vibration or injury.
4. The saw should be placed on its side on the workbench when not in use.

A.5.3 Portable Belt Sander

1. Place the sander on its side before plugging the power plug into the outlet
2. Securely clamp the work piece before sanding.
3. Start the sander before touching it to the surface to be sanded.
4. Disconnect the power plug before changing the sanding belt.
5. The weight of the sander will apply adequate pressure to the sanding surface in most cases. Do not apply pressure that causes the sander to slow down.

A.5.4 Disk / Belt Sander

1. Check the belt or disk to make sure it is in good condition and not torn. The shop supervisor will replace worn belts or disks.
2. Keep fingers and hands clear of the moving or rotating surface.
3. Hold the work piece securely and use only moderate pressure.
4. Sand only on the downward motion side of the disk sander.
5. Move the work piece side to side on the sanding surface to prevent rapid wear of the belt or disc.

A.5.5 Table and Radial Circular Saw

1. You must ask the supervisor's permission to use the radial arm saw or the table saw.

2. Unplug the machine before handling or changing the blade.
3. Select the proper blade for the cut to be made. Check the blade to be free of cracks or nicks, and that it is sharp.
4. Limit the blade extension to ~ inch through the piece being sawed.
5. Use the ripping fence or the cutoff gauge when cutting material.
6. Keep a push stick immediately available and use it to keep fingers away from the saw blade.
7. Feed the work piece at a moderate rate, but not so fast the motor slows down.
8. When using the fence to rip cut a work piece the operator and all observers must not stand in line with the work piece because it can get pinched between the spinning blade and the fence causing it to kick back (be fired strait back out of the saw at a very rapid rate).
9. When cutting large or long pieces on the table saw, use an assistant to SUPPORT the edge or end of large or long pieces being sawed. The assistant does not "feed" the material into or pull it through the saw. This can cause the operator to loose their balance if the work piece moves more rapidly then they anticipated and the operator can fall into the saw.
10. Make sure the table saw has a blade guard, splitter, and anti-kickback device installed and operational before using the saw. Exceptions may be made for specialty cuts (e.g., dados). Check with the shop supervisor before disengaging or removing these guards.
11. You may not cut any work piece on the radial arm saw that is less than 12 inches in length.
12. The table and radial arm saws are for cutting wood materials only.

A.5.6 Jig Saw

1. Select the proper size and type of blade for the material to be cut.
2. Cut only stock that is flat on at least one side.
3. See the technician about setting the proper blade tension.
4. The jig saw foot should apply pressure to the work piece. The foot holds the work piece down on the table.
5. Turn the machine through by hand to check for proper operation before turning on the power.

A.5.7 Jointer

1. All guards will remain in place and properly operating before using the jointer.
2. Stand to the side of the machine when in operation.
3. Limit the depth of the cut to 1/16 inch maximum; the jointer is intended for light finish cuts only.
4. Use a push stick, and do not feed material less than 12 inches long through the jointer.
5. Never allow hand pressure on top of the work piece to be directly over or just past the cutter. If kickback should occur with the hand over the cutter, serious injury will result.

6. The work piece must be pushed far enough past the cutter knives before picking it up to allow the guard to return.
7. Feed the work piece at a constant moderate rate and into the rotation of the cutter.

A.6 Other Tools

A.6.1 Sand Blaster

1. All work pieces must be clean (free of grease, oil, etc) and dry.
2. You must ask the supervisor's permission to sand blast.
3. Discontinue use and inform the supervisor if the sand blasting machines gloves develop cracks, tears or holes.

A.6.2 Compressed Air

1. Wear safety glasses, goggles, or face shield when using the blow gun.
2. Blowing compressed air at your skin or that of others can inject air bubbles into the blood stream and cause death.
3. You are responsible for insuring that your use of the air hose does not injure others, (i.e., do not blow chips at someone without eye protection). LOOK FIRST.

A.6.3 Solvent Tank

1. Use of the rubber gloves provided is strongly recommended but not required.
2. Pre-clean the parts to remove excess grease, oil and other foreign substances so that the solvent is not instantly too contaminated to use. Note: the solvent is recirculated continuously.
3. When not in use the lid is to remain closed and not used as a table.
4. No additional solvents may be added to the solvent tank.
5. The supervisor is responsible for replacing the solvent.

A.6.4 Spray Painting

1. No spray painting will be done in this shop. It does not meet the Air Pollution Control District or OSHA regulations and requirements.
2. Check with the supervisor for alternatives if painting is required to complete your project.

A.6.5 Hydraulic and Arbor Press

1. Make certain work is solidly supported on the table and is aligned with the ram.
2. Make certain that accessories, ram or arbor, are properly positioned so as to prevent parts from slipping out when under pressure and endangering yourself or observers.

Appendix B: Student Shop After Hours Policy

B.1 Rules for Student Machine Shop for after hours and weekends

1. All shop safety rules will be strictly adhered to, see Appendix A.
2. Only physics approved students, working as part of an official physics department group, are allowed in the shop. Each individual must provide, on the sign-up sheet, his or her name and an emergency contact (this will include the name, relationship, and phone number of a responsible party in the event of an accident).
3. No machinery will be operated and no work will be done unless there are two student members physically present in the shop. This will allow, in the event of an injury, for the second person to call for help by using the EMERGENCY PHONE and then render aid. See EMERGENCY PROCEDURES below.
4. Any breach of safety procedures will result in the loss of shop privileges.
5. Faculty sponsor must approve after hours work and provide a means of contact for the group.
6. Leave doors open while working in student machine shop.

B.2 Minor Emergencies

If treatment is required for minor accidents, University Health Services or any ERT can be contacted. Telephone numbers and locations will be posted on the door by sign-in sheet.

B.3 Emergency Procedures

In the event of a serious accident the second person performs procedures listed below:

1. Press the RED button on the EMERGENCY PHONE located on the left side of the doorway and under the large RED sign. This will put you in direct contact with the University of Texas Police Department (UTPD). This will also give UTPD the exact location (Robert Lee Moore/RLM) and the room number (3.210/student shop).
2. Explain the nature and severity of the emergency and if Emergency Medical Services (EMS) and/or the fire department are needed.
3. Render aid until emergency response teams arrive. The FIRST AID KIT is located on the wall by the sink.
4. Contact the faculty supervisor.
5. Ask EMS personnel which hospital the individual will be transported to.
6. Faculty Supervisor: Phone the emergency contact (from sign-up sheet) and tell them which hospital the student will be taken to.
7. Contact the student shop supervisor, Jack Clifford at 380-0670, and the shop supervisor, Allan Schroeder at 281-3261.
8. E-mail Allan Schroeder at als@physics.utexas.edu a detailed report covering the accident and procedures followed including as many names as possible.
9. Secure all shop entrance doors before leaving.

THE UNIVERSITY OF TEXAS - DEPARTMENT OF PHYSICS
STUDENT MACHINE SHOP AGREEMENT

I have read, understand, and agree to follow all rules set forth in the **Physics Student Machine Shop Safety Manual**. (The manual is located on the Physics website – https://ph.utexas.edu. Click on "Research" > Department Facilities > Mechanical Section > Student Machine Shop.)

I have read, understand, and agree to follow all rules set forth by the Physics Student Machine Shop for **after-hours and weekends**.

I understand and agree that the machine shop, and all of the equipment, is to be used only when a shop supervisor (any Physics Instrument Maker) is present or another student member is present.

I understand that the Physics Department's appointed shop supervisors are in charge of the shop. I will respect their authority at all times.

If I have a grievance with a supervisor's judgment, I will take the matter to his/her immediate superior, the E/MT supervisor.

I understand that violating any of the preceding rules is cause for suspension or removal of my shop privileges.

Student's Name: _____

Lab Location: _____ Email: _____

Office Ph. #: _____ Lab Ph. #: _____

Home Phone #: _____ (with area code)

Professor's Name (print): _____

Professor's Office Ph. #: _____ (with area code)

Professor's Home Ph. #: _____ (with area code)

Emergency Contact Information

Name (print): _____

Relationship: _____

Phone #: _____ (with area code)

Student's Signature: _____ Date: _____

Professor's Signature: _____ Date: _____