

# Proposal for Annual Recertification for Woodshop Users

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**Problem:** Dallas Makerspace Woodshop users occasionally forget important rules and end up damaging tools, causing needless expense, wasting volunteer time for repair, ruining their work and (potentially) injuring themselves. While woodshop training is good, there are a lot of rules thrown at users in a short period of time. In some cases, woodshop training occurred years ago reducing the retention of the rules.

**Proposal:** Institute an annual certification test to raise awareness of Woodshop rules (test instructions and questions are below). Failure to pass the test (100% correct answers) results in suspension of wood shop privileges. Recertify wood shop users in May of each year.

**Justification:** Taking the test and reading the questions will raise awareness that there are rules, of key rules and where to go to get more information without being onerous on users or the test administrator. Recording of the answers and grading the test will ensure they are aware of the rules. The test is about learning while taking the test, it is not meant to evaluate a user's depth of shop knowledge or be tricky. This should reduce expense, volunteer time to fix tools, tool downtime a fewer injuries. Recommend we evaluate effectiveness of this in one year and make adjustments as needed.

**Details:** The test should reflect most important rules and the most commonly violated rules. Use Google forms with auto grading (there may be better tech for this). Users can take the test as many times as needed to pass. This is an open rules, open notes and an open internet test – use any help or resources you want (but not another person or their answers). Send out test May 1 and users have 30 days to pass. Failure to take or pass test results in lose of Woodshop privileges on June 1. We should post that you will need to take a recertification test by June 1 in the woodshop (covers the case of bad email addresses).

## Options considered for an Annual Recertification Plan for Woodshop Users

Options	1. Send rules to all woodshop users, ask to read, respond with "I have read"	2. Send rules and a simple test to all woodshop users. Must pass test.	3. Have users attend 45 to 90 minute refresh class on rules for each tool.	4. Have users retake Woodshop training annually or if no usage in last 12 months
Estimated Effectiveness	- Low	- Moderate	- High	- High
Estimated Resistance from Woodshop Users	- Low	- Moderate	- High	- Very High
Pro's	<ul style="list-style-type: none"> <li>- Easy</li> <li>- Users are aware that there are rules</li> </ul>	<ul style="list-style-type: none"> <li>- Easy to administer.</li> <li>- Users are aware of the issues/rules highlighted in the test</li> <li>- High likelihood they read the questions and learned something.</li> </ul>	<ul style="list-style-type: none"> <li>- Can review a greater number of rules than in option 2</li> </ul>	<ul style="list-style-type: none"> <li>- More interesting than option 3</li> </ul>
Con's	<ul style="list-style-type: none"> <li>- Did they really read it?</li> <li>- Will they remember?</li> </ul>	<ul style="list-style-type: none"> <li>- Will they remember?</li> <li>- Does not cover all rules</li> </ul>	<ul style="list-style-type: none"> <li>- This will be boring for most users</li> </ul>	<ul style="list-style-type: none"> <li>- Time intensive for users and teachers</li> </ul>
Issues		<ul style="list-style-type: none"> <li>- Need an administrator</li> </ul>	<ul style="list-style-type: none"> <li>- Need volunteer(s) to run training.</li> <li>- Do we charge for this?</li> <li>- There are ___ users to be trained</li> </ul>	<ul style="list-style-type: none"> <li>- Need volunteer(s) to run training.</li> <li>- Do we charge for this?</li> <li>- There are ___ users to be trained</li> </ul>



**Option 2 is a good balance between effectiveness and user acceptance**

- **What this proposal solves:** The test solves the problem of users that are not aware of the rules, teaches the most important rules it makes sure they know where they can find rules and more resources if needed.
- **What this proposal does not solve:** It does not solve the problem of the person that refuses to follow rules. It also does not train on every rule.
- **Out of scope:**
  - ✓ What the rules are. Changes to rules should be part of a separate initiative.
  - ✓ Consequences for violating a rule: Deciding consequences, if any, should be part of a separate initiative.
- **Other thoughts:**
  - ✓ If we think people will share the answers – we can look into technology that would give the test questions in random order
  - ✓ If we think that people will hire others to take the test for them, we can look at requiring users take the test at DMS to verify an id. Other ideas? How likely is this?

# Sample Test

Directions: Click on the best answer to each question. You can use the rules posted at [https://dallasmakerspace.org/wiki/File:Woodshop\\_Rules\\_03\\_02\\_2022.pdf](https://dallasmakerspace.org/wiki/File:Woodshop_Rules_03_02_2022.pdf) to take this test but may not use the help of another person. There is one and only one best answer to each question. Many of the questions here were inspired by actual user behavior that caused damage to a machine.

Name: \_\_\_\_\_

Dallas Maker Space user name: \_\_\_\_\_

1. I certify that I have taken this test without the help of another person and did not use a list of answers provided by another person. I also acknowledge that I can have a copy of the rules in front of me to take this test.

A. Agree

B Disagree

2. The Woodshop rules are posted:

A. On the woodshop wall between the Felder and the belt sander

B. On the DMS Woodshop wiki page at [https://dallasmakerspace.org/wiki/File:Woodshop\\_Rules\\_03\\_02\\_2022.pdf](https://dallasmakerspace.org/wiki/File:Woodshop_Rules_03_02_2022.pdf)

C. in a locked box under the CNC machine

D. A and B

C.

3. What materials are banned in the Woodshop:

- A. Pressure Treated Lumber (all tools)
- B. Southern Yellow Pine and any wood with visible sap (all tools)
- C. Reclaimed wood (do not cut or sand on freestanding tools)
- D. Metal
- E. Plastic (except for acrylic pen blanks and cutting sheet plastic on the table saw if using a user provided plastic specific blade you provide)
- F. All of the above

4. What material can not be cut with the Powermatic 209HH Planer 20" planer and the Powermatic 1285 12" Jointer?

- A. Engineered wood (MDF, Plywood, Particle board, etc)
- B. End Grain (example: end grain cutting boards)
- C. Live edge wood with bark attached
- D. Painted wood
- E. Wood with glue dried <24 hour or resin cured < 7 days
- F. All of the above

5. What is the minimum length and thickness of wood to be planed on the for the Powermatic 209HH 20" Planer :
- A. Wood must be at least 10 feet long, and at least 6 inches thick
  - B. Wood must be at least 10 inches long, and at least 1/4 inches thick
6. What is the maximum depth of cut for the Powermatic 209HH 20" Planer :
- A. There are to maximums, you can take off as much as you want
  - B. 1/32" is the max depth of cut for softwood (half turn of the handle) and 1/64<sup>th</sup> for hard wood (quarter turn of the handle)
7. What is the minimum length, thickness and depth of cut for wood on the Powermatic 1285 12" Jointer:
- A. The piece to be cut must be at least 12 feet long, at least 6 inches thick and take off no more than 1 inch thick of material per pass
  - B. The piece to be cut must be at least 7 inches long, at least 1/4" thick and take off no more than 1/8 inch of material per pass

8. What materials can trigger the Sawstop brake?

- A. Charred wood - from fire, laser, etc ...
- B. Laser-cut wood (see above)
- C. Chemically treated lumber / pressure-treated wood
- D. Wet lumber
- E. Green wood
- F. Wet paint or wet glue
- G. Foil-laminated or metal-leafed wood (like some picture frames)
- H. Metal shards (staples, etc...)
- I. Cardboard corner guards (usually contain recycled metal fragments)
- J. Any metal in proximity to the blade .... the saw sled, rulers, squares, etc.
- K. Graphite cloth
- L. Anti-static Ultra High Molecular Weight (UHMW) Polyethylene (contains carbon particles to make it anti-static)
- M. All of the above

9. If a member triggers the Sawstop brake, what must happen?

- A. They are responsible for notifying the woodshop chair and subsequently donating \$100 to help cover a portion of the cost for replacing the brake and blade. Fee may be waived at discretion of the Woodshop Chair.
- B. Nothing – the blade and brake will be magically replaced by the Sawstop fairy.

10. What is wrong with the following picture?

[Insert picture of using a miter gauge and the fence at the same time]

A. Nothing – this a perfectly normal cut

B. This is potentially dangerous – the wood could ride up the blade, shoot back and the person's finger could get pulled onto the blade resulting in potentially serious personal injury.

11. Which statement is true?

A. I can bypass the Sawstop brake functionality when needed.

B. I can not bypass the Sawstop brake functionality (use the Powermatic table saw for cuts likely to trigger the Sawstop as long as they are not a banned material for the Powermatic tablesaw)

12. What should you do when using the Kapex Miter Saw?

A. Work-piece must sit flat and be stable on the table and against the fence when making a cut.

B. Use clamps as needed to secure the work-piece to table/fence. Attempting to cut bowed or twisted boards can result in dangerous kickback situations.

C. Follow manual guidelines for limits on work-piece dimensions; for standard 90-degree cross cut, maximum height & width are 3 1/2" x 12".

D. Never cut small pieces that would require you to put fingers within 3" of the cutting blade; use appropriate clamping and backer and sacrificial boards as needed.

E. None of the above

F. All of the above



13. When can you change the speed of the Powermatic 2800B Drill Press?

- A. Only when it is unplugged
- B. Only when it is turned off
- C. Only when it is running (Spindle turning)
- D. None of the above

14. When should blast gates for a tool be used?

- A. Never, the Felder will not work if they are open
- B. Anytime you are using a tool that has a blast gate.

15. Is it a good idea to sand without sand paper on the Festool Sanders?

- A. Yes – you get a really nice shine on your wood
- B. No – it will ruin the pads and they are >\$50 to replace. Check that there is sandpaper before every use.

16. What personal items and workpieces can I store in the woodshop, woodshop annex, woodshop storage racks or assembly area?

- A. Nothing except for glued up workpieces with date/time and contact information (and then only for a maximum of 24 hours)
- B. There is lots of space at DMS so anything you want for as long as you want.

17. What should you do when using the Laguna or Jet bandsaws?

- A. Always check to make sure the blade is tensioned properly. (On the Jet - Make sure the lever behind the upper wheel is set to the "Run" position)
- B. Raise or lower the upper blade guide so that it clears your work no more than an inch or so
- C. If cutting green or sappy wood, clean the blade when done (and blade guide if necessary).
- D. Keep your fingers at least 4" away from the blade. Use push sticks when necessary!
- E. Use the cradle when sawing logs & limbs to prevent rolling / breaking the blade
- F. Do not force the blade to twist for any reason!!!
- G. Do not attempt to cut a curve too tight for the blade width. (See yellow bend radius chart.)
- H. Do not feed the material into the blade too fast, bind the blade or stop the motor.
- I. All of the above

18. When can I perform maintenance, repair, modify or improve a machine?

- A. Anytime – DMS is a "Do-ocracy" – go for it!!
- B. Only with permission of the Woodshop Chair (He will likely approve your idea but he needs to know).

19. Should you use safety glasses (Ansi Z87.1 standard) for eye protection in the woodshop?

- A. It is recommended but not required
- B. Only when machines are running and you are near them
- C. Yes, it is required at all times in the Woodshop

20. For the combination belt/disc sander what should you do:

- A. When using the disc sander keep your material to be sanded on the left side of the disc. It may be thrown upward if you use the right side.
- B. When using the belt sander, keep your material on the low part of the belt. It may be thrown down on the table if you and your material on the high part.
- C. Gently bring your material to the belt or disc.
- D. A, B and C
- E. None of the above

20. If you don't like a rule:

- A. You can ignore it
- B. You can propose a change to a rule and submit to the Woodshop Committee for approval

21. Where can you find manuals to most of the machines to find additional safety and how to operate information?

A. Goggle the machine name and model number

B. On the DMS Wiki page: <https://dallasmakerspace.org/wiki/Tools#Woodshop>

C. On the wall between the Felder and Belt sander.

D. All of the above

End of test