



# Tools for Teaching and Evaluating the WCA Standards



- WCA Credentialing Path
- Available training resources
- Help you get started
- Classroom Mgmt
- Recognition
- Reporting results
- Answer Questions

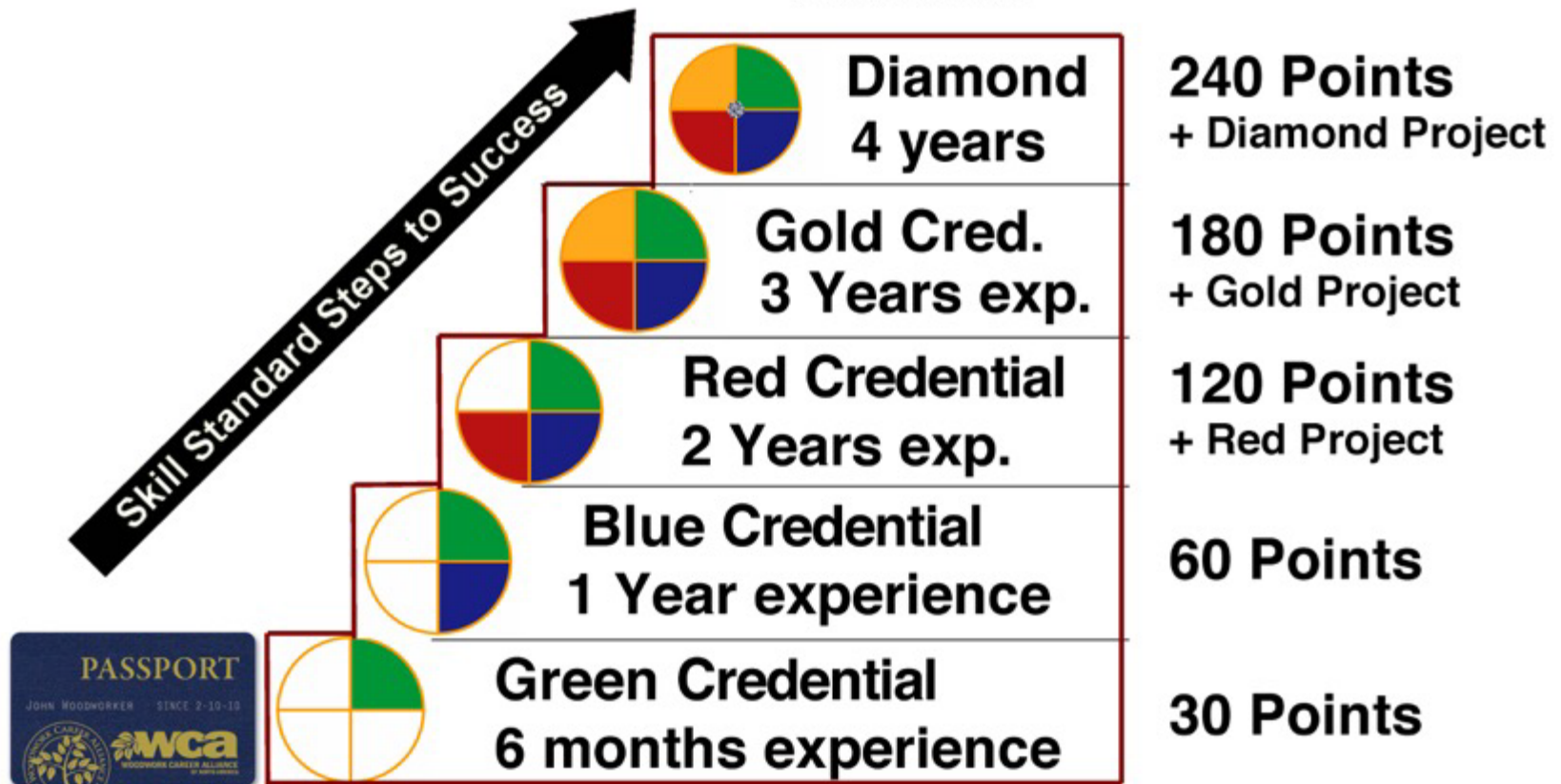




# Professional Career Path

1 Year = 1600 hours

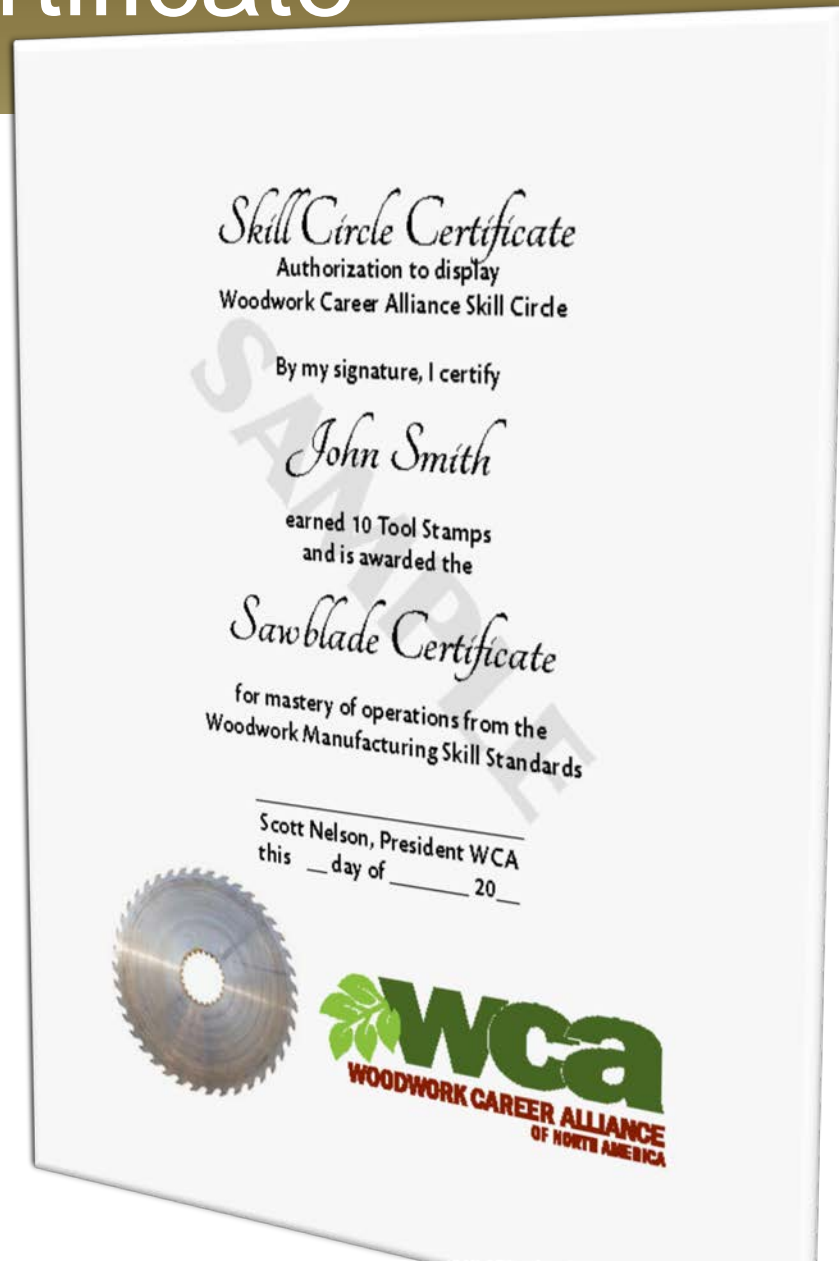
A more  
knowledgeable  
and skilled  
workforce!





# Sawblade Certificate

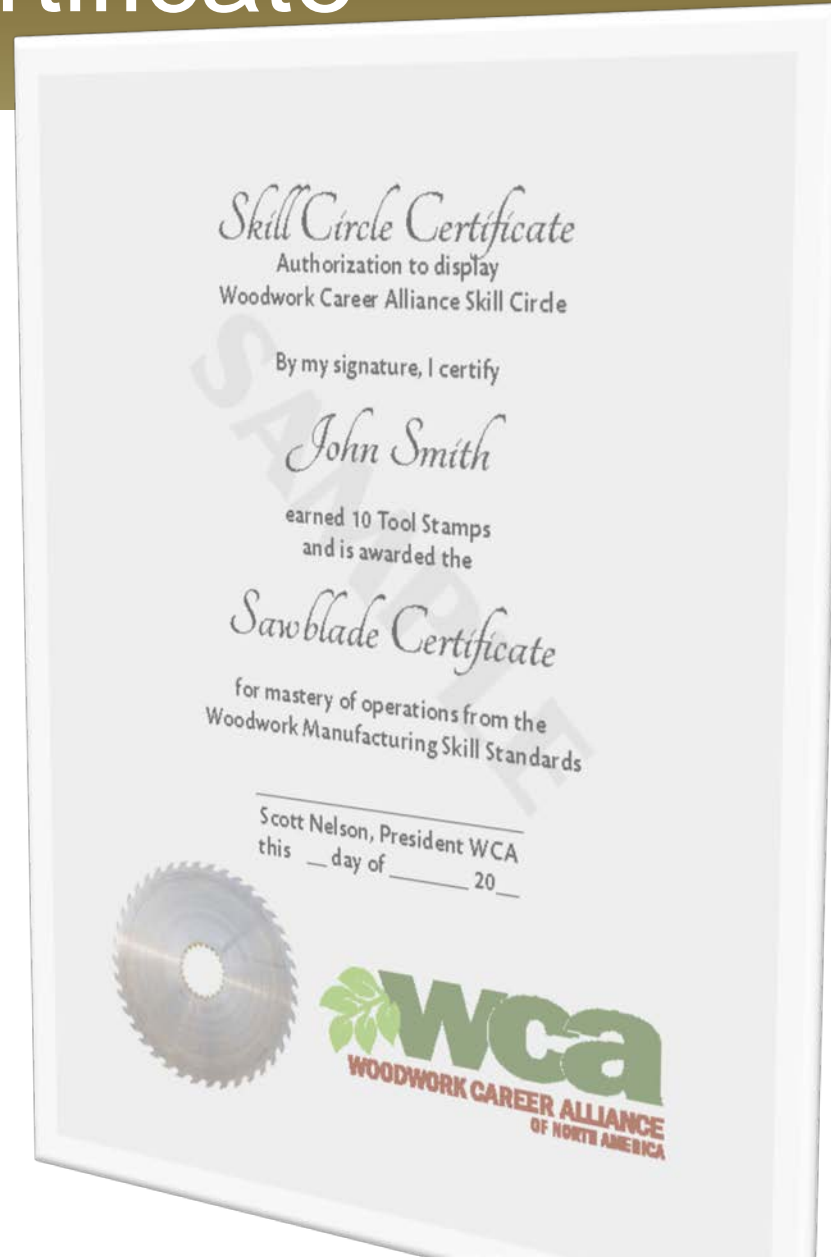
- 1. Student enrolls in WCA, (Passport and 10 free assessment credits.) \$55 one-time.
- 2. Student passes the Skill Standards BASIC Measuring and Layout evaluations.





# Sawblade Certificate

- 3. Student earns 10 points (2 points for each Level 2 achievement) as follows:
  - Level 2 on Jointer – Edge jointing 1st edge
  - Level 2 on Table Saw – Ripping
  - Level 2 on Table Saw – Edge rabbet/single blade
  - Level 2 on Portable Hand Sander – Sand solid lumber
  - Level 2 on Drill Press – Drill holes to specified location and depth

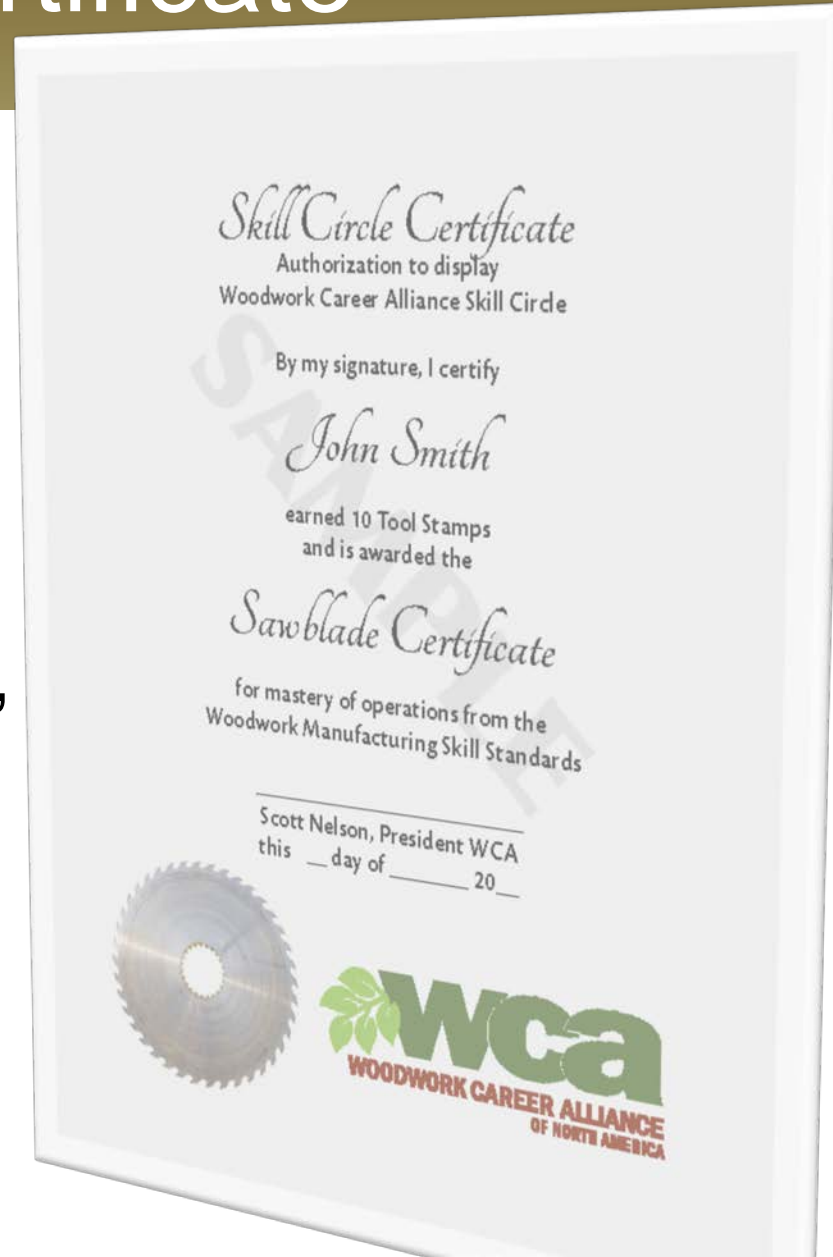






# Sawblade Certificate

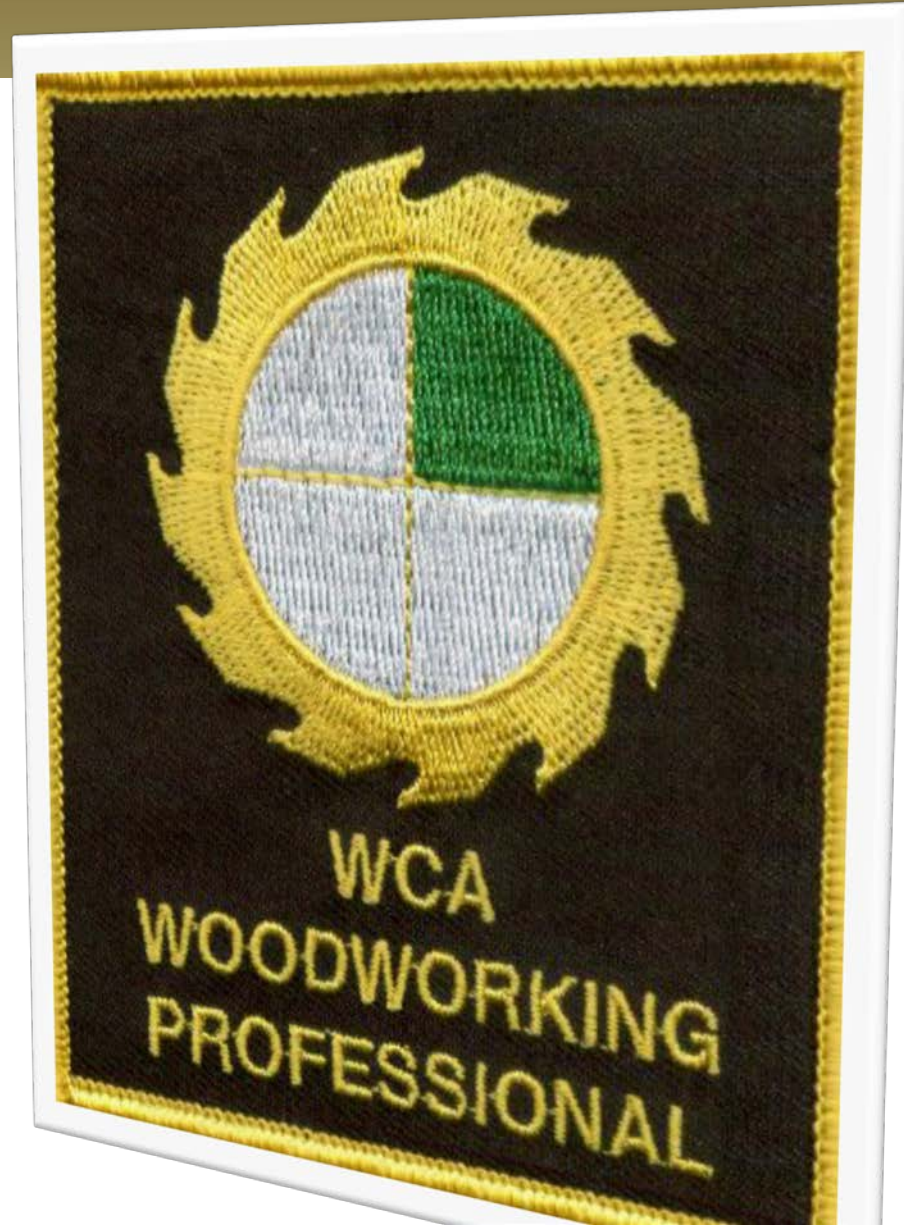
- 4. Student scores 80% on the 40-question [WCA Sawblade online test](#).
- 5. Educator records successful assessments Points in the WCA Registry, which triggers an automated notice to WCA.
- 6. Student receives **Sawblade Certificate**, signed by WCA President





# Green Credential Certificate

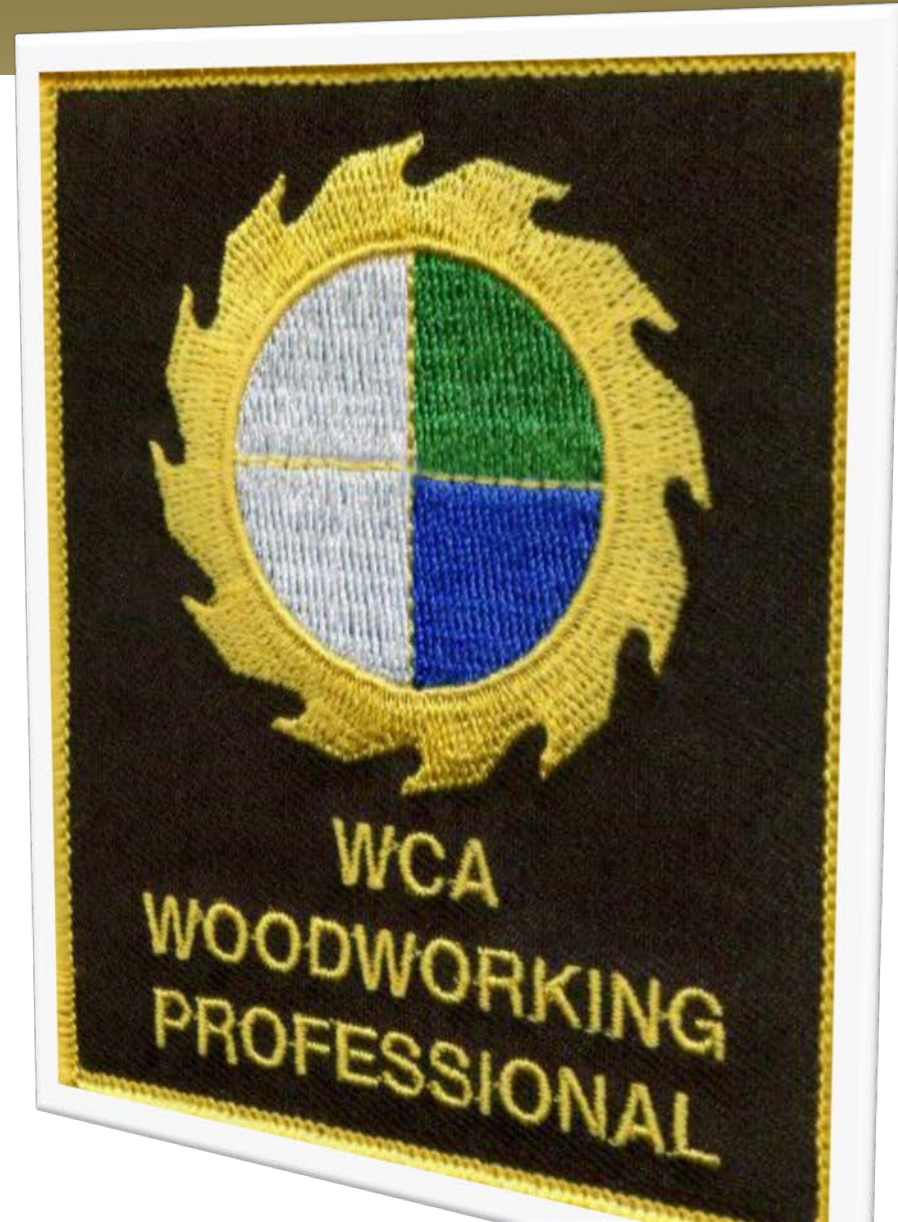
1. Earn 20 More Points, for a total of 30.
2. Record 800 Hours in school or at work since enrollment in WCA Program.
3. Get Pin, Patch, and Certificate.





# Blue Credential Certificate


1. Earn 30 More Points, for a total of 60.
2. Record 800 Hours in school or at work since earning the Green Credential, for a total 1,600 hours.
3. Pin, Patch, and Certificate.







# Getting Started - Resources for Training & Assessment



Search Files

All Files > WCA Training Assets

↑ Upload

+ New

...

**01 Layout and Measurement** Owned by Woodwork Career Alliance  
Created Mar 30, 2017 by Greg Heuer 0

**02 Sawing** Owned by Woodwork Career Alliance of Nor...  
Created Mar 30, 2017 by Greg Heuer 0

**03 Milling** Owned by Woodwork Career Alliance of Nor...  
Created Mar 30, 2017 by Greg Heuer 0

**04 Shaping** Owned by Woodwork Career Alliance of Nor...  
Created Mar 30, 2017 by Greg Heuer 0

**06 Boring** Owned by Woodwork Career Alliance of Nor...  
Created Mar 30, 2017 by Greg Heuer 0

**07 Sanding** Owned by Woodwork Career Alliance of Nor...  
Created Mar 30, 2017 by Greg Heuer 0

**MATC Self-Directed curriculum media.pdf**  
Uploaded Mar 30, 2017 by Greg Heuer 12.9 KB 1

## Woodworking 1A: Machinery & Methods Learning Plan

### Unit 1.1: Measurement

#### Overview

In many trades, especially the woodworking trades, much of the skill of the "skilled worker" is the ability to use measuring and layout tools with precision and accuracy. Woodworkers spend a large part of their time making measurements and calculations. This will often involve both U.S. Customary and metric systems of measurement. This module you will test your ability to read a ruler and add measurements.

Task	Estimated Time	Actual Time
Reading/Study	1.5 hours	
Observation & Practice	2.5 hours	
Exercise	1 hour	

#### Learning Activities

✓ Task

- ☐ Read *Modern Cabinetmaking* pp. pp. 149-55
- ☐ Review the presentation *Measurement for Woodworkers* on Blackboard or with your instructor.
- ☐ Read Information sheet 1, "Goals in Measurement"
- ☐ Review Information sheet 2, "Scale Markings – U.S. Customary System"
- ☐ Watch the video *Tape Measures: Care & Use* <https://youtu.be/QL2ul777aXw>
- ☐ Print & complete Skill Activity 1, "Measuring with a rule"; check your answers and consult with your instructor if you have questions.
- ☐ Watch the video *Slide Calipers: Care & Use* <https://youtu.be/D-FIY1K2Azo>
- ☐ Review Information sheet 4 on Caliper Use
- ☐ Practice measuring with a calipers
- ☐ Complete the test on Measurement
- ☐ Complete Exercise 1.1 – Measurement Widget

#### Assessment Activities

- ☐ Test: Measurement
- ☐ Submit Exercise 1.1 for review





# The Learning Plan

## Woodworking 1A: Machinery & Methods Learning Plan

### Unit 1.1: Measurement

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# WCA & Modern Cabinetmaking

- Modern Cabinetmaking Features:
  - Terminology
  - Step by Step procedures
  - Safety Notes & Illustrations
  - Working Knowledge
  - Green Notes
  - Bulleted Summaries
  - Test Your Knowledge
  - Suggested Activities (Common Core)

## WCA Correlates with textbook

- General Considerations
- Pre-operation checklists
- Actual Standards



**Modern Cabinetmaking**  
Fifth Edition

William D. Umstatt  
Charles W. Davis  
Patrick A. Molzahn

**WOODWORK CAREER ALLIANCE OF NORTH AMERICA**

STUDENT PRINT MATERIALS	ISBN	LIST	SCHOOL
Textbook, approx. 912 pp., hardcover	978-1-63126-071-1	\$93.28	<del>\$69.96</del>
Lab Workbook, approx. 286 pp.	978-1-63126-075-9	\$24.00	<del>\$18.00</del>
Bundle, Textbook + Lab Workbook	978-1-63126-076-6	\$111.40	<del>\$83.50</del>
<b>ONLINE STUDENT CENTER (OSC) ONLINE TEXTBOOK, WORKBOOK, AND INTERACTIVE CONTENT</b>			
Online Student Center, 6 yr. Classroom Subscription (min. 15)	978-1-63126-073-5	\$117.28	<del>\$87.96</del>
Bundle, Textbook + OSC (min. 15)	978-1-63126-074-2	\$163.92	<del>\$122.94</del>
Online Instructor Resources, 6 yr. Individual Subscription	978-1-63126-028-5	\$528.00	<del>\$396.00</del>
<b>G-W ONLINE (GWO) ALL ONLINE CONTENT + COURSE MANAGEMENT AND ASSESSMENT</b>			
G-W Online, 1 yr. Access Key Code	978-1-63126-077-3	\$80.00	<del>\$60.00</del>
Bundle, Textbook + GWO	978-1-63126-078-0	\$160.00	<del>\$120.00</del>
Online Instructor Resources, 1 yr. Individual Access Key Code	978-1-63126-082-7	\$128.00	<del>\$96.00</del>
<b>INSTRUCTOR MATERIALS</b>			
Instructor's Resource CD	978-1-63126-079-7	\$266.64	<del>\$199.98</del>
ExamView™ Assessment Suite	978-1-63126-080-3	\$248.00	<del>\$186.00</del>
Instructor's Presentations for PowerPoint® Individual License	978-1-63126-081-0	\$244.00	<del>\$183.00</del>





## Videos:

[www.youtube.com/user/PMolzahn](http://www.youtube.com/user/PMolzahn)



# AREA | TECHNICAL COLLEGE

Patrick Molzahn

✓ Subscribed 77

This is a collection of videos from Madison College's Cabinetmaking & Millwork program.

### Uploads



Portable Power Sanders

34 views • 3 weeks ago



DA Sander Tips & Techniques

40 views • 3 weeks ago



Kaizen Foam in the Kitchen

211 views • 1 month ago



Tape Measures: Care & Use

52 views • 2 months ago



Common Tools for Layout

56 views • 2 months ago



Slide Calipers: Care & Use

50 views • 6 months ago

### Created playlists



Sanding



Drill Press



Measurement & Layout



Shaper



Favorites



Table Saw Parts & Adjustments



# Demonstration Checklists



**MADISON**  
AREA TECHNICAL  
COLLEGE

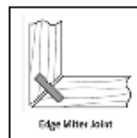
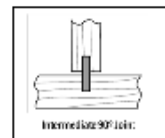
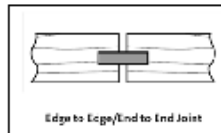
## Biscuit Joiner Demonstration Checklist:

Name \_\_\_\_\_ Date \_\_\_\_/\_\_\_\_/\_\_\_\_

Observer: \_\_\_\_\_

With your instructor or an approved proxy, demonstrate on a Biscuit Joiner:

- Describe tool hazards & demonstrate lock-out/tag-out procedures
- On/off switch
- Depth of cut adjustment
- Fence adjustment for height
- Fence adjustment for angle
- Locator markings (at least 3)
- Dry run of Edge-to-Edge joint
- Dry run of 90 degree Butt Corner
- Dry run of an Intermediate 90 degree joint
- Dry run of two 45 degree mitered panel ends
- What are the 3 most common biscuit sizes?
- What is the typical centerline distance between biscuits?
- Describe how to change the tooling




Student's Signature: \_\_\_\_\_


(By signing this document you are indicating that you have reviewed the learning materials and understand the proper operation, maintenance and safety procedures for this machine).


Instructor's Approval: \_\_\_\_\_ Date \_\_\_\_/\_\_\_\_/\_\_\_\_





- ☐ Test: Measurement
- ☐ Submit Exercise 1.1 for review


**!0 Sawblade Quiz**  
Updated yesterday by Greg Heuer 3


**0! Widgets**  
Updated Jun 18, 2015 by Greg Heuer 7


**01 Layout**  
Updated Nov 1


**02 Sawing**  
Updated Mar 3


**03 Milling**  
Updated Mar 2


**04 Shaping**  
Updated Mar 2


**05 CNC**  
Updated Feb 2


**06 Boring**  
Updated Nov 19, 2014 by Greg Heuer 18


**07 Sanding**  
Updated Nov 19, 2014 by Greg Heuer 31

**08 Clamping Laminating**  
Updated Nov 20, 2014 by Greg Heuer 7

**09 Turning**  
Updated Nov 21, 2012 by Greg Heuer 2

**10 Joinery Assembly**  
Updated Sep 1, 2014 by Greg Heuer 10

**11 Grinding Sharpening**  
Updated Feb 25, 2014 by Greg Heuer 7

**12 Finishing**  
Updated Feb 25, 2014 by Greg Heuer 5







# Measurement Widget

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

Date: \_\_\_\_\_

Serial # (if inscribed): \_\_\_\_\_

ISOMETRIC  
Scale: N.T.S.

**Instructions:**

Using a caliper, record your measurements to the nearest .000"

**Calipers: Measure Thickness**

C-1a \_\_\_\_\_

C-1b \_\_\_\_\_

C-1c \_\_\_\_\_

**Calipers: Measure Depth**

C-2a \_\_\_\_\_

C-2b \_\_\_\_\_

C-2c \_\_\_\_\_

**Calipers: Inside Dimension**

C-3a \_\_\_\_\_

C-3b \_\_\_\_\_

C-3c \_\_\_\_\_

**Calipers: Center Distance**

C-4a \_\_\_\_\_

C-4b \_\_\_\_\_

C-4c \_\_\_\_\_

**Tape Measure: Measure Lengths**  
(record your measurements to the nearest 1/32")

TM-1a \_\_\_\_\_

TM-1b \_\_\_\_\_

TM-1c \_\_\_\_\_

TM-1d \_\_\_\_\_

TM-1e \_\_\_\_\_

**Bevel: Measure Angles**

B-1a \_\_\_\_\_

B-1b \_\_\_\_\_

B-1c \_\_\_\_\_

**1 FRONT VIEW**  
Scale: 1:2

**2 ISOMETRIC**  
Scale: N.T.S.

DRAWN BY: P.Molzahn

PROJECT: WCA SKILL STANDARDS

DRAWING TITLE: Measurement Widget

DATE: 5-6-15

SHEET: \_\_\_\_\_

SCALE: As Noted

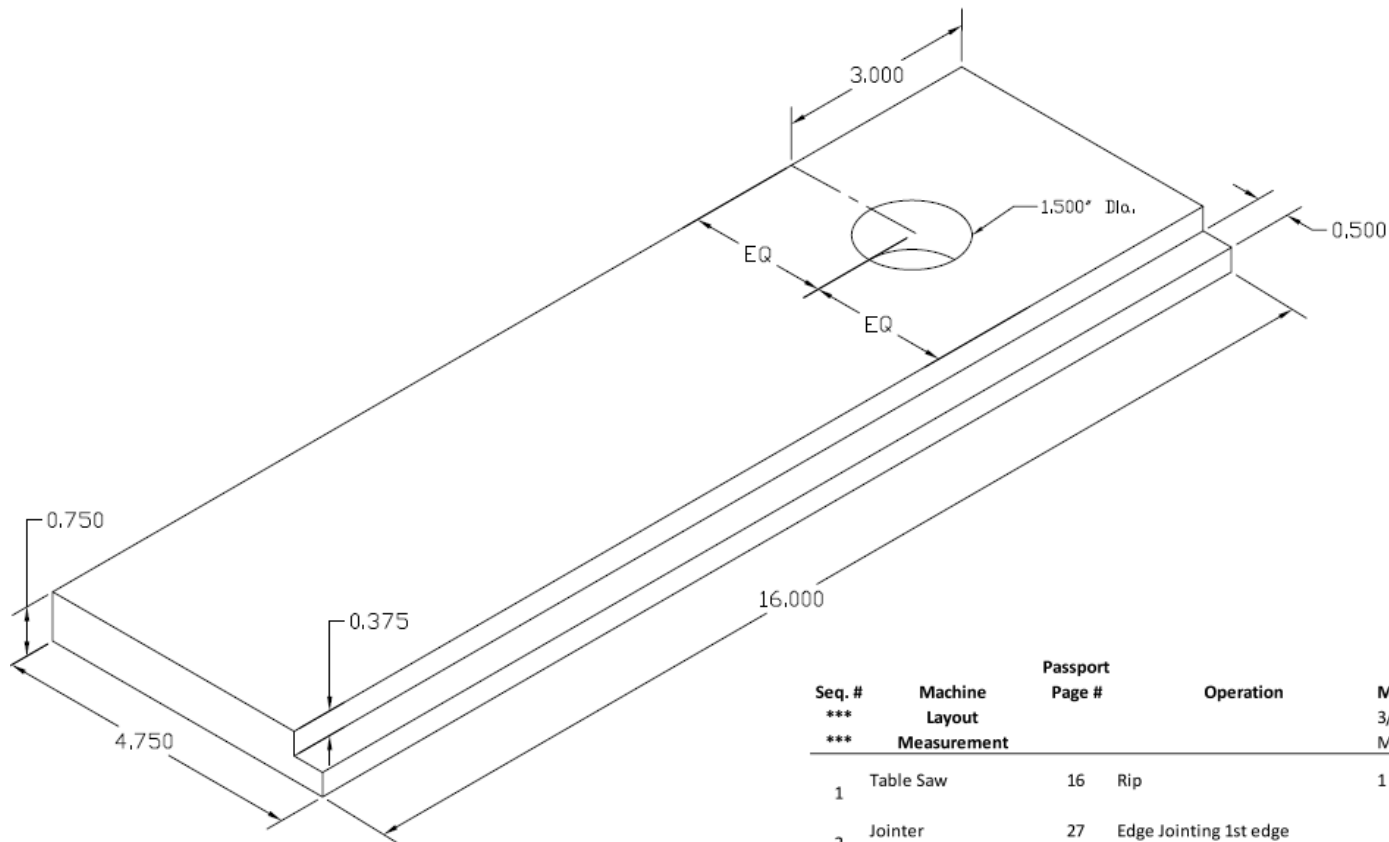
REV #: 5

NOTES: Min. Score 80%

TOOLS REQUIRED: Tape Measure, Pencil, Calipers, Bevel & Protractor or Combination Square with Protractor Head.



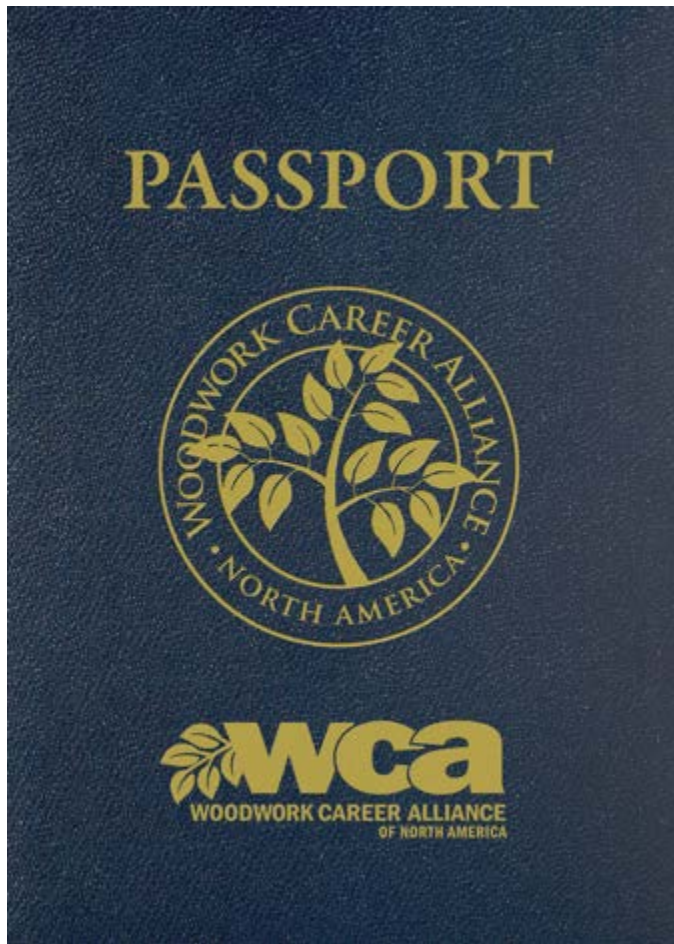
# Sawblade Test Widget



Seq. # *** ***	Machine Layout Measurement	Passport Page #	Operation	Material Requirements 3/4x4x11.5 Solid Stock Measurement Widget
1	Table Saw	16	Rip	1 x 5-1/2" +/- x 16"
2	Jointer	27	Edge Jointing 1st edge	
3	Table Saw	17	Edge Rabbet	
4	Drill Press	39	Drill Holes completely thru material.	
5	Random Orbit Sander	43	Sand Solid Lumber	



# The Passport



- Entry point into the system
- Candidates must purchase prior to any assessment
- \*Physical record of points; REGISTRY database is official record



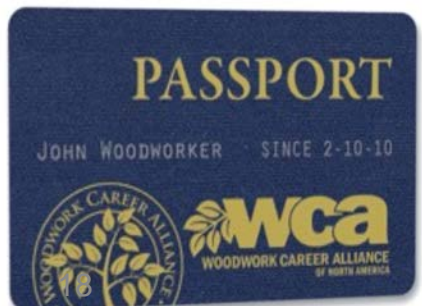


# The Registry

## Basics

WCA ID	000001
Status	Active
Rank	Admin
Region	9-Atlantic
Experience Hours	10000
Tool Stamps	185
Certification Level	Diamond Credential

[Purchase Credits](#)



## Contact Info

Picture



Name	Greg Heuer
Address	P.O. Box 636 Woodwork Career Alliance
City	Nellysford
State	Virginia
Postal Code	22958
Country	USA
Phone	434-298-4650
Email	gheuer212@me.com

[Update Contact Info](#)



# WCA EDUcation Membership

## WCA-EDU Training Affiliate



- EDUcation™ Division Subscription for Schools
  - \$250 per year – Must have One Instructor Enrolled/Passport Holder
  - Benefits easily return the annual subscription cost . . .



# What Does It Cost?

- **“Essentials” donation package**
  - \$50 coupon from Quickscrews
  - Digital membership at Fine Woodworking and Fine Homebuilding
  - Veneer from Veneer Technologies
  - 2 Gals. Glue from Franklin
  - Free Bessey Clamps for first 50 schools to sign up; 40% off for all schools.
  - Product Package from Rockler.com
- **Streamlined Multi-Student Registration Process**
- **Certification Program for Students: Sawblade Certificate**
  - 10 free credits; \$50 value/student for evaluations
  - Online Written knowledge test
- **Access to training & evaluation materials**
- **1 tuition-free Accredited Skill Evaluator training per year**

**Much More – Page 21 of the Evaluator Handbook . . .**





# Assessing students





# Tools for Teaching and Evaluating the WCA Standards

## TEACHING THE WCA STANDARDS

GETTING YOUR STUDENTS TO THE:

*"SAW BLADE AWARD"*

WHAT !, WHEN ! AND HOW !


INCLUDING VIDEO **ASSESSMENT**



# Tools for Teaching and Evaluating the WCA Standards

## STARTING THE SCHOOL YEAR

### SEPTEMBER The First Week Of School

- Bulk Passport Order [form](#) email to Greg
- Take and Upload [Headshots](#) 
- School office places [bulk order](#)
- Class fee(\$55.00) covers WCA membership
- School [Subscription](#) \$250.00 Perkins Funds?
- Why?? [BENEFITS!](#) Real Tools & Materials



# Tools for Teaching and Evaluating the WCA Standards

## WEEK 2

### TAPE MEASURE SKILL EVALUATIONS

[ASSESSMENT FORMS](#)

[1.1.1,](#) 1.1.2, 1.1.3, 1.1.4 IN A PACKET

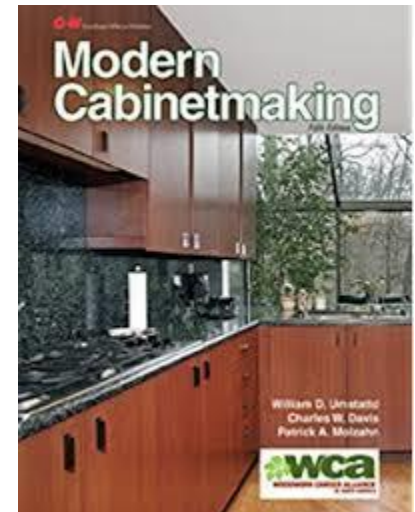
[WIDGET 1](#)

[WIDGET 4](#)

[NOTES](#)

QUIZ I use MOODLE

Don't wait for passports







# Tools for Teaching and Evaluating the WCA Standards

## WEEK 4

### DIAL CALIPER SKILL EVALUATIONS

ASSESSMENT FORMS [1.3.1](#), 1.3.2, 1.3.3, 1.3.4

[WIDGET](#)





# Tools for Teaching and Evaluating the WCA Standards

## OCTOBER WEEK 6

### COMBINATION SQUARE SKILL EVALUATIONS

ASSESSMENT FORMS [1.2.1](#), 1.2.2, 1.2.3 PACKET

STUDENTS CREATE WIDGET

[ANGLES](#)

**MC** Chapter 12

Pages 150-155

SIGN UP FOR BENEFITS

10/31 DEADLINE

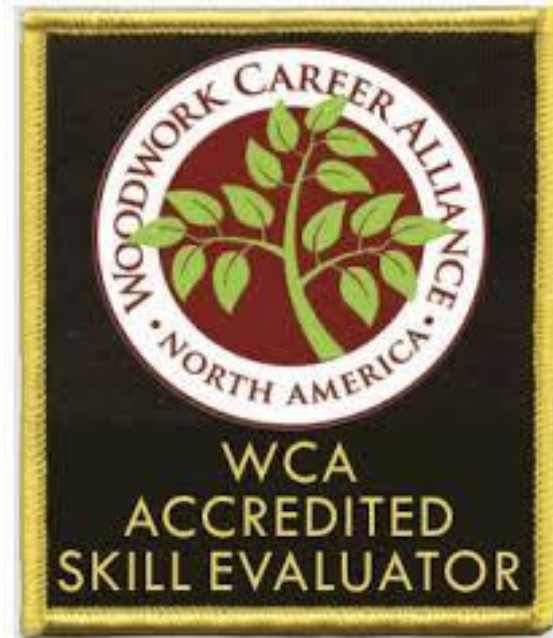




# Tools for Teaching and Evaluating the WCA Standards

## NOVEMBER: RECORDING RESULTS

KEEP A LIST AS YOU GO  
DO THEM IN BULK  
ASSESSMENT CREDITS  
USING [REGISTRY](#)





# Tools for Teaching and Evaluating the WCA Standards

## FEBRUARY SEMESTER 2: WEEK 2

### JOINTER SKILL EVALUATION

#### 3.1.2 Edge jointing 1st edge

VIDEO [CHECK LIST](#)

**MC** Chapter 25

[MILLING NOTES](#)

QUIZ







# Tools for Teaching and Evaluating the WCA Standards

## FEBRUARY WEEK 4

### TABLE SAW SKILL EVALUATION

#### 2.1.1 Ripping

VIDEO [CHECK LIST](#)

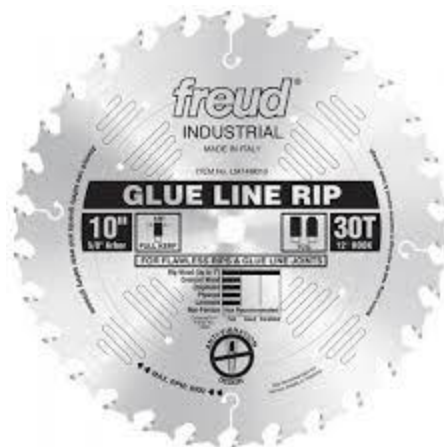
EXAMPLE [VIDEO](#)

[SAWING NOTES](#)

**MC** Chapter 23

PGs 371-378

QUIZ





# Tools for Teaching and Evaluating the WCA Standards

## MARCH WEEK 6

### TABLE SAW SKILL EVALUATION

2.1.4 EDGE RABBET W/ SINGLE BLADE or

2.1.5 EDGE RABBET WITH DADO SET

VIDEO [CHECK LIST](#)





# Tools for Teaching and Evaluating the WCA Standards

## APRIL WEEK 10

### SANDING FLAT SOLID LUMBER SKILL EVAL

Assessment [form](#)

I DON'T DO A VIDEO

[EXAMPLE PRODUCT](#)

**MC** Chapter 29 & 30

NOTES

QUIZ





# Tools for Teaching and Evaluating the WCA Standards

## APRIL WEEK 11

### LUMBER & MILLWORK KNOWLEDGE

MAKE SURE TO REVIEW THIS TOPIC FOR THE SAW BLADE QUIZ

**MC** Chapter 14

[NOTES](#)

QUIZ







# Tools for Teaching and Evaluating the WCA Standards

## APRIL WEEK 12

### BORING SKILL EVALUATION

6.1.1 Drill holes to specified location and depth

MAKE VIDEO [CHECK LIST](#)

NOTES

**MC** Chapter 27

QUIZ





# Tools for Teaching and Evaluating the WCA Standards

## MAY WEEK 12

## RECORD FINAL RESULTS HANDOUT PASSPORTS

## SET STUDENTS UP FOR ONLINE [QUIZ](#) LOGIN

## WCA [PASSPORT NUMBER](#)





# Tools for Teaching and Evaluating the WCA Standards

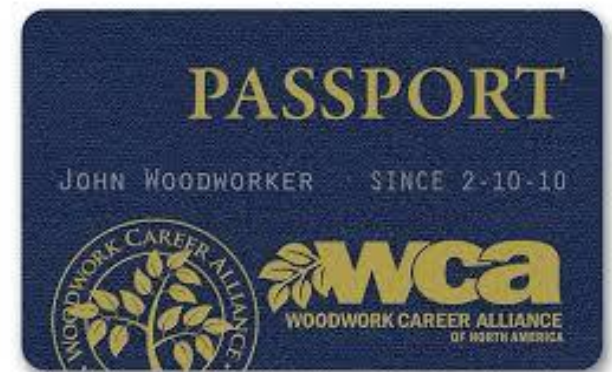
**MAY WEEK 14**

CONFIRM QUIZ RESULTS

PROJECT WORK DEADLINE

SHOP SHUTDOWN

ANNUAL STUDENT  
MAINTENANCE





# Tools for Teaching and Evaluating the WCA Standards

## SUMMER

### REFLECT-REFINE-PREPARE

- GET THE WCA TEACHER [CHECK LIST](#)
- GENERATE NEEDS LIST USE WISH LIST –as year progresses
- UPDATE COURSE MEDIA consider google classroom
- MAINTAIN, REPAIR, IMPROVE facilities
- ORDER SUPPLIES
- MAKE PACKETS ---switching to google forms







# Tools for Teaching and Evaluating the WCA Standards

SCAN THE QR CODE OR EMAIL FOR A LINK TO MY PRESENTATION MATERIALS

[christensenb@westosha.k12.wi.us](mailto:christensenb@westosha.k12.wi.us)

I will share my video checklists, notes, or anything else on request.





# Tools for Teaching and Evaluating the WCA Standards

Scan the QR code or  
EMAIL FOR A LINK TO MY PRESENTATION  
[christen@westosha.k12.wi.us](mailto:christen@westosha.k12.wi.us)



PATRICK MOLZAHN  
WCA



# Woodwork Career Alliance

1. Recognize
2. Reward
3. Rejoice





# Awards Celebration

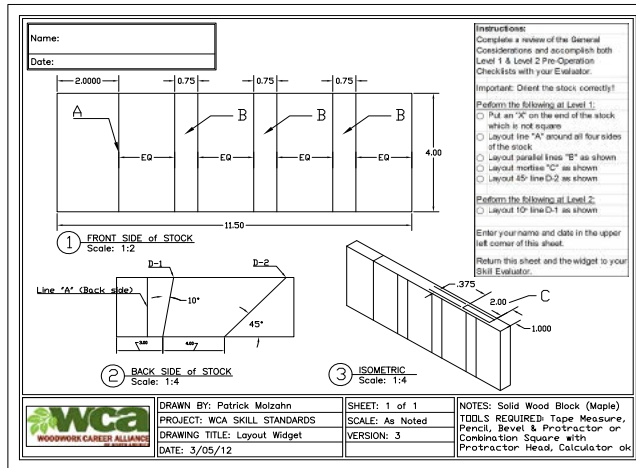
- 1. Award the Certificates in a public ceremony.
- 2. Be SURE your administrators and guidance counselors get the good news
- 3. Share the names and pictures with the local newspaper and parents.
- 4. Share news with WCA.







# Help Build Our Library of Resources



**Portable Power Sanders**  
34 views • 3 weeks ago



**DA Sander Tips & Techniques**  
40 views • 3 weeks ago



**Kaizen Foam in the Kitchen**  
211 views • 1 month ago



**Tape Measures: Care & Use**  
52 views • 2 months ago



**Common Tools for Layout**  
56 views • 2 months ago



**Slide Calipers: Care & Use**  
50 views • 6 months ago

## Created playlists



**Sanding**



**Drill Press**



**Measurement & Layout**



**Shaper**



**Favorites**

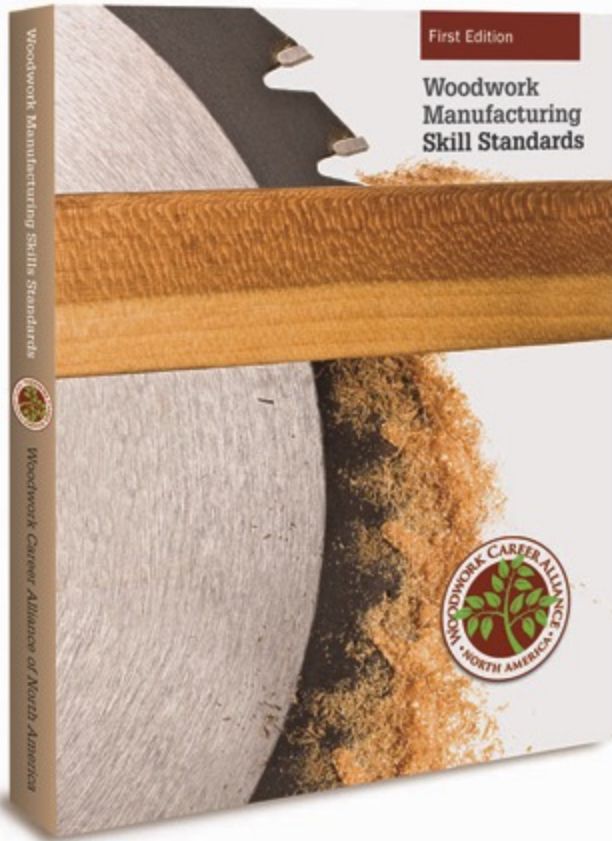


**Table Saw Parts & Adjustments**





# Summary & Questions



- WCA
- Credentialing Path
- Available training resources
- How to get started
- Questions?



# WCA Contacts

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