

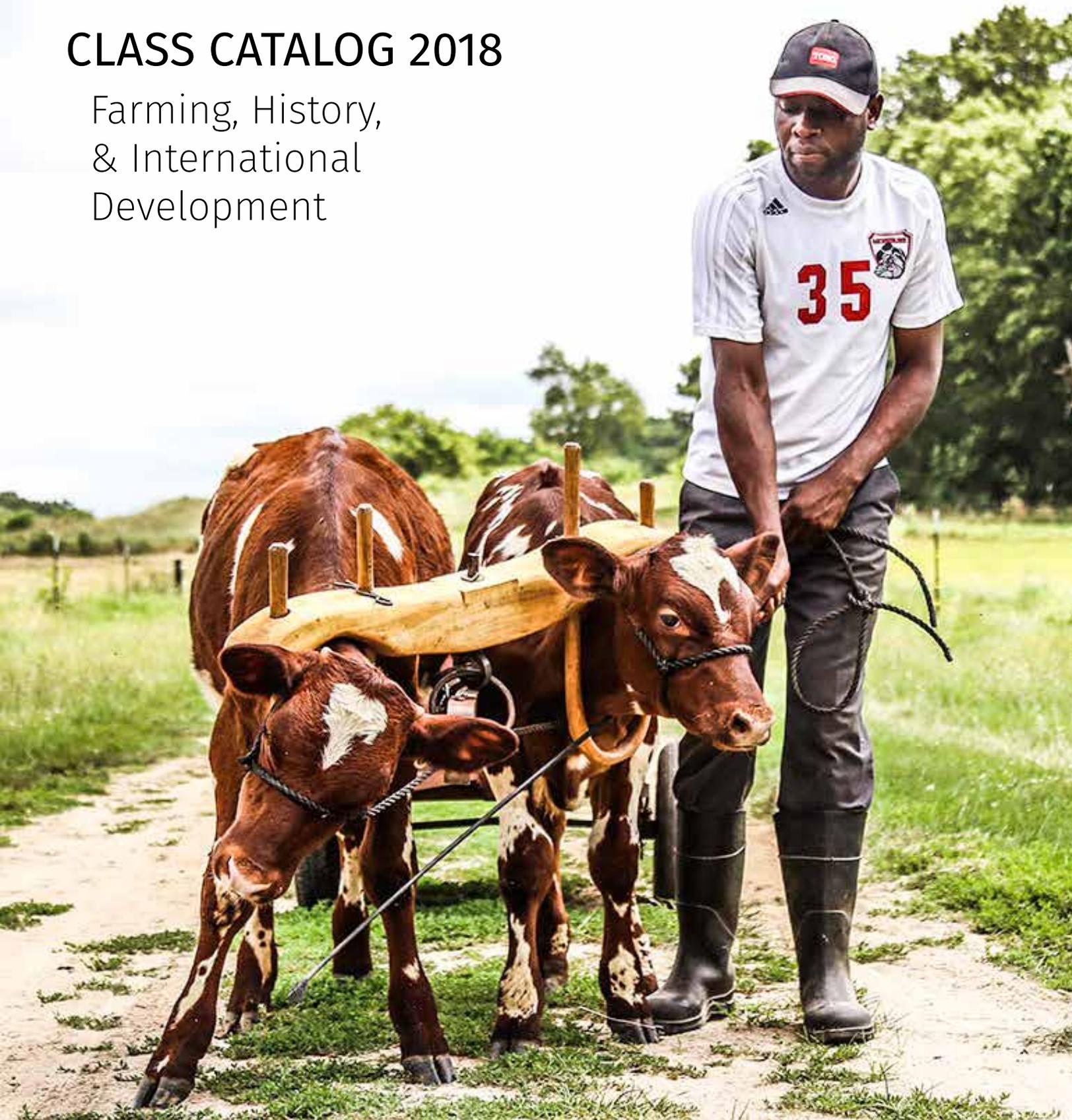


TILLERS  
international

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## CLASS CATALOG 2018

Farming, History,  
& International  
Development



# 2018 TILLERS CLASS CALENDAR

Skills training for Farming, History, and International Development

## January

13-14	SSu	Blacksmithing I	\$250
19-20	FS	Blacksmithing II	\$250

## February

15-16	ThF	Blacksmithing I	\$250
17-18	SSu	Blacksmithing II	\$250
24-25	SSu	Logging with Draft Animals	\$250

## March

3-4	SSu	Basic Coppersmithing	\$275
9-11	F-Su	Windsor Tall Stool	\$300
16-17	F-S	Blacksmithing I	\$250
17-18	SSu	Spoon Carving	\$250
17-18	SSu	Ox Driving Intro	\$200
21-24	W-S	Bowl Turning on Spring Pole Lathe	\$525
22-24	Th-S	Historic Blacksmithing	\$375
28-	W	Intro to Organic Farm/Gardening	
- Apr 4, 11		Evening Series	\$125
30-31	FS	Beginning Tinsmithing	\$250

## April

3, 5, 10,12	T,Th	Intro to Hand Tool Woodworking: Shaker Bench- Evening	\$250
3-6	T-F	Draft Horse Basics	\$450
7	S	Draft Horse Training Seminar	\$125
6	F	Identifying Trees	\$100
7	S	Identifying Wood	\$100
7-8	SSu	Knife Making	\$275
8	Su	Soap Making	\$100
12-13	ThF	Blacksmithing I	\$250
<b>14 S</b>		<b>Annual Plow Day Open House</b>	<b>free</b>
20-22	F-Su	Blacksmithing: Weathervanes	\$425
26-27	ThF	Tools for Coopering (straight stave)	\$275
28-29	SSu	Coopering: Piggins	\$275

## May

5	S	Herb-Walk and Medicine Making	\$50
5-6	SSu	Small Foundry Work	\$250
5-6	SSu	Beekeeping	\$250
7-12	M-S	Timber Framing and Raising	\$625
10-11	ThF	Blacksmithing I	\$250
12-13	SSu	Blacksmithing II	\$250
17-19	Th-S	Woodworking: Joinery	\$375
18-19	FS	Blacksmithing: To a Froe	\$275
19-20	SSu	Homesteading Practices	\$225

## **20 Su Tillers Oxtrot**

21-24	M-Th	Intro to Hand Tool Woodworking: Dovetailed Box- Evening Series	\$250
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## June

8-9	FS	Blacksmithing I	\$250
8-10	F-Su	Coopering: Mary Rose Tankard	\$275
13-17	W-Su	Coopering: Barrels (5 gallon barrel)	\$650
15-16	FS	Blacksmithing: Forge Welding	\$275
17	Su	The World of the Scythe	\$125
18-22	M-F	Oxen Basics	\$525
<b>22-24 F-Su</b>		<b>Midwest Ox Drivers Association Gathering</b>	
23	S	Herb-walk and Medicine Making	\$50

## July

6-7	FS	Tinsmithing: Pattern Layout	\$250
12-13	ThF	Blacksmithing I	\$250
<b>14 S</b>		<b>Midwest Tool Collectors Association Meet and Auction</b>	
16-20	M-F	Farming with Horses and Oxen	\$500
19-20	ThF	Parent/Teen Blacksmithing	\$425
21	S	Rope Making	\$100
21-22	SSu	Improvisational Blacksmithing	\$250
28	S	Wooden Rakes	\$100
28	S	Small Grain Production	\$125

## August

3-4	FS	Blacksmithing I	\$250
11-12	SSu	Knife Making	\$275
24-25	FS	Blacksmithing II	\$250
25-26	SSu	Appalachian Brooms	\$250

## September

8	S	Herb-Walk and Medicine-Making	\$50
8-9	SSu	Blacksmithing I	\$250
<b>15 S</b>		<b>Tillers Harvest Fest</b>	
20-22	Th-S	Stone Masonry	\$350
24-29	M-S	Timber Framing and Raising	\$625
28-29	FS	Tinsmithing: Tea and Coffee pots	\$250

## October

2-6	T-S	Windsor Chairs	\$600
3-6	W-S	Draft Horse Basics w/ Donn Hewes	\$450
5-6	FS	Blacksmithing I	\$250
11-12	ThF	Tools for Coopering (barrel)	\$275
13-14	SSu	Coopering: Buckets	\$275
18-20	Th-S	Working Wood and Iron: a toolbox journey	\$375
19-21	F-Su	Ox Training/Driving Clinic	\$350
24-28	W-Su	Production Barrel Making	\$850

## November

2-3	FS	Blacksmithing I for Women	\$250
2-3	FS	Spoon Carving	\$250
6,8, 13,15	T, Th	Intermediate Hand Tool Woodworking: Dovetailed Wall Cabinet Evening Series	\$325
10-11	SSu	Blacksmithing I	\$250
17-18	SSu	Blacksmithing II	\$250
30-1	FS	Make a Shaving Horse	\$275

## December

6-7	ThF	Blacksmithing I	\$250
8-9	SSu	Blacksmithing II	\$250
17-20	M-Th	Bowl Turning on Spring Pole Lathe	\$525

*Class prices include the cost of tuition and the cost of materials. The majority of classes run from 9 a.m. to 5 p.m. and take place at our 430-acre farm in Scotts, MI, unless otherwise specified in the class descriptions.*



Tillers International studies and uses what some call “traditional” rural skills in order to effectively collaborate with smallholder farmers abroad who rely on skills such as animal traction, blacksmithing, and woodworking to overcome the challenges of daily life. Your participation in these classes is part of this collaboration and an important revenue stream to support our work. Thank you for your interest and participation.

## Class Registration Details

**Use one of these 3 methods to register for classes.**

- Mail in the form on page 15
- Call us at (269) 626.0223.
- Visit our website for online registration: [www.TillersInternational.org](http://www.TillersInternational.org)

**Payment:** We accept Visa, MasterCard, checks, money orders, or online payments with credit cards.

**Cancellation & Refund Policy:** Tillers International reserves the right to cancel classes for any reason. In the unfortunate event that Tillers International cancels a class, all paid tuition will be refunded in full.

- Cancellation by the student more than 30 days before the start date of class will result in a full refund.
- In honor of the time and preparation required by our organization and instructors, cancellation by the student less than 30 days before the class will result in a cancellation fee of 50% of tuition cost.
- Cancellation by the student less than one week (seven days) before the class start date will result in the full forfeiture of tuition cost. Failure to attend the class will result in the full forfeiture of tuition.
- Any funds forfeited to Tillers International because of cancellation or failure to attend class will be used to benefit the international development work done by the organization.

Unless otherwise specified, every full day class includes a box lunch. Please inform us of special dietary needs ahead of time, especially food allergies and sensitivities, and we will work to accommodate them.

**Classes meet on the first day in the guest house kitchen area at 10515 East OP Ave. Scotts, MI 49088.** Coffee/tea is available beginning at 8:30 am.

# Draft Animal & Farming Classes



## Ox Driving Intro - 221

Oxen are an inexpensive alternative to tractors and an excellent resource on small farms or in woodlots. In this class you will learn to drive oxen using visual, verbal, and tactile cues. Tillers' well-trained oxen and expert instructors build your skills and confidence beginning with the easiest driving teams and working on a variety of field tasks. The class concentrates on driving skills, but also introduces yoking, training, hitching, and alternatives to standard techniques.

**March 17-18 Sat-Sun 9-5 pm**

Tuition: \$200

Instructor: Rob Collins and Dick Roosenberg

## Oxen Basics - 222

This comprehensive class creates skills in driving, training, and yoking in a sequence of hands-on experiences. Enjoy well-trained oxen responding to your voice commands. Learn to select, team, and care for oxen. Use low-stress training to teach calves. Drive teams hitched to various loads, practice field tasks, and try your hand at early shop skills to shape your own small yoke (added charges for yokes more than 6" bow width). Make this the outstanding experience of your year! Most days, activities can last beyond 5:30.

**June 18-22 Mon-Fri 9-5 pm**

Tuition: \$475 Materials: \$50 (6" or smaller yoke)

Instructor: Rob Collins and John Sarge

## Ox Training/Driving Clinic - 224

Designed to take your ox training skills to a higher level. Tillers' staff and guest instructors share training skills for remote commands, driving from behind, use of lines, etc. Participants should have experience driving oxen before taking this class. Participants are also encouraged to bring their own animals for focused training.

**October 19-21 Fri-Sun 9-5 pm**

Tuition: \$350

Instructor: Brandt Ainsworth

## Draft Horse Basics, Spring and Fall - 230

Experienced teamsters share draft horse handling, hitching, and driving skills. Participants begin by building confidence with the gentle giants in the barn, brushing and harnessing. Then, skills will be honed with simple ground driving of a single horse progressing to plowing and other field work with a team. Breeds, hoof care, and health will be covered. Experience the pleasures of working with Belgian and Suffolk draft horses on Tillers' beautiful farm, and start building the skills you'll need to work with draft horses on your own.

**Draft Horse Basics - Spring: April 3-6 Tues-Fri 9-5 pm**

Tuition: \$450

Instructor: Duane Westrate

- Fall details on next page

## **Draft Horse Basics - Fall: October 3-6 Wed-Sat 9-5 pm**

Tuition: \$450

Instructor: Donn Hewes

DAP Net President

Co-owner of Northland Sheep Dairy

## **Draft Horse Training Seminar - 238**

This seminar will take place at Amish Ferrier in Centerville, MI, and will cover Draft Horse Basics for students interested in training techniques. Amish trainer Harlan Yoder who specializes in training working horses will take you through the steps for transforming an inexperienced colt into a well-behaved workhorse. Topics include working spoiled horses and building confidence in horses that haven't worked.

### **April 7 Sat 9-5 pm**

Tuition: \$125

Instructor: Harlan Yoder, Amish Ferrier in Centerville, MI

## **Farming with Oxen & Horses - 250**

A unique opportunity to put skills in ox and horse handling to work. We immerse you in a wide variety of field work—tillage and planting, the first hay cutting, and cultivating early weeds. Part of each day is spent learning skills and the rest in field practice. Coaches help refine field skills and draft animal handling. Assignments depend on skill, but we entrust you with real farm work. Activities flex with the weather.

### **July 16-20 Mon-Fri 9-5 pm**

Tuition: \$500

Instructors: Duane Westrate and Dick Roosenberg

## **Logging with Draft Animals - 260**

Oxen and draft horses demonstrate ecological methods for skidding logs from woods with tongs, sleds, and arches. Practice skidding exercises with coaches. See demonstrations of tree felling techniques and safety. Learn ways to load logs on a sled or wagon, watch portable sawmill operations, learn sales strategies, observe and discuss lumber seasoning and home kilns. Logging in snow helps demonstrate ideal logging conditions. Learn about micro-forestry from tree to specialty lumber.

### **February 24-25 Sat-Sun 9-5 pm**

Tuition: \$250

Instructors: Brandt Ainsworth

## **Small Grain Production - 270**

In this one day class we'll be looking at different methods of planting, harvest, and post harvest processing for wheat, oats, and rye. We'll see harvesting equipment from the scythe and the flail to the combine. We'll be able to use some of this equipment in the field, although like all grain growers, we are at the mercy of the weather and the ripeness of the grain. We have plots of grain from 3/4 of an acre to just a few square feet. There will be several different varieties of wheat and oats both modern and historic to compare and a discussion on the pros and cons of different grain growing approaches.

### **July 28 Sat 9-5 pm**

Tuition: \$125

Instructor: Duane Westrate and Ivy Pagliari

## **The World of the Scythe - 274**

Come learn how to use the Austrian scythe. Demonstrations include hay mowing, cutting hillsides, ditches and under fences, small farm hay management, creating a cutting edge with hammer and peening anvil and maintaining the edge using a whetstone. Mow an area and see how to manage the cut grass with a collection of hand tools. Plenty of hands-on instruction and practice.

Learn correct movement for mowing and how to adjust the scythe to your body. Bring your scythe to class if you have one and have it evaluated for fit and sharpness. Scythes will be provided to try and buy. Class starts earlier than usual!

### **June 17 Sun 8-4 pm**

Tuition: \$125

Instructor: Larry Cooper

## **Introduction to Organic Gardening / Farming Series - 130**

Join us for an inspiring peek into Organic Gardening. This class introduces fundamental organic principles and practices including: seed starting, garden planning, soil preparation and care, transplanting, direct seeding, pest issues, harvesting, extending the season, seed saving, vermiculture, and cover crops. Get ready for the season with this hands-on, participatory, fun and informative class to be held at the First Congregational Church in Kalamazoo, MI.

This class will consist of three 3-hour sessions held on consecutive Wednesdays.

### **March 28, April 4, and April 11**

**Weds. 6-9 pm**

Tuition: \$125

Instructor: Erik & Amalia Anbessa  
of La Amistad Farm

**SCHOLARSHIPS AVAILABLE**  
for new and/or young farmers who are  
seeking to incorporate draft animals  
into their farming system  
(for classes 220 to 270).

# Blacksmithing and Metalworking Classes

## Blacksmithing I, II, and Blacksmithing for Women

Tuition: \$210 Materials: \$40

Instructor: John Sarge

## Blacksmithing I - 310

This fast-paced introduction to smithing moves you through the fundamentals: basic hammer skills, heat treating, forge welding, and identification of “found” steels. By the end of the second day students will be turned loose to make interesting forged pieces with the support and collaboration of a blacksmith with 30 years of experience. Safety, tools, techniques, materials, terminology, and shop set-up will all be explored. With an anvil for each student, there is plenty of hands-on learning and superb coaching in this popular class. The Herb Nehring Blacksmith Shop is a beautiful timber-framed structure and consists of six coal forges and twelve anvils, along with a myriad of other tools of the trade. Students will work almost exclusively with coal. This class is an excellent start for a hobby or new occupation.

a/ January 13-14	Sat-Sun 9 - 5 pm
b/ February 15-16	Th-Fri
c/ March 16-17	Fri-Sat
d/ April 12-13	Th-Fri
e/ May 10-11	Th-Fri
f/ June 8-9	Fri-Sat
g/ July 12-13	Th-Fri
h/ August 3-4	Fri-Sat
i/ September 8-9	Sat-Sun
j/ October 5-6	Fri-Sat
k/ November 10-11	Sat-Sun
l/ December 6-7	Th-Fri

## Blacksmithing II - 311

Build on skills learned in Blacksmithing I. Hands-on projects improve your hammer skills and add to your techniques. Work on two projects, a trivet and tongs, and have plenty of time for individual projects. Coaching speeds your progress. A great way to enjoy and refine your smithing skills.

a/ Jan 19-20	Fri-Sat 9 - 5 pm
b/ February 17-18	Sat-Sun
c/ May 12-13	Sat-Sun
d/ August 24-25	Fri-Sat
e/ Nov 17-18	Sat-Sun
f/ Dec 8-9	Sat-Sun

## Blacksmithing I for Women - 310m

Back by popular demand! Come learn blacksmithing and become a part of the rich history of female blacksmiths. This introduction to blacksmithing covers the same projects as Blacksmithing I.

**November 2-3 Fri-Sat 9 - 5 pm**



## Improvisational Blacksmithing - 312

As well as being Tillers’ primary blacksmithing instructor, John Sarge has extensive experience traveling overseas on international development projects working with rural artisans who rely on the forge and arc welding to fabricate tools that meet the demands of life on a small farm. Come explore creative ways to use existing skills to achieve local manufacturing capabilities. Projects include small tools and household utensils (candle holders, etc.). The class will also simulate shop conditions found overseas (ie. ground-level forge, engine block anvils, etc.)

**July 21-22 Sat-Sun 9 - 5 pm**

Tuition: \$210 Materials: \$40

Instructor: John Sarge

## Parent & Teen Blacksmithing - 313

Teens and their parent (or other adult) together can learn metal forging skills in the blacksmith shop with experienced instructors in this very popular class. Students make BBQ tools, chisels, and other projects. The fire and tools used in this class demand respect and develop responsibility.

**Note-Teen and parent/adult need to register together for this class. Tuition and materials price reflects registration for the pair.**

**July 19-20 Thur-Fri 9 - 5 pm**

Tuition: \$365 Materials: \$60

Instructor: Joe Rafacz

## Knife Making - 315

Instructor Tim Carr shows you the care needed in forging high carbon blades. Refine hammer skills, make corrections with the file, and develop annealing and tempering techniques. Mount a fine wood handle to add beauty and contrast to the steel. Tim is active on the board of the Michigan Artist Blacksmiths' Association (MABA) and has been smithing for 18 years, 11 professionally.

**Blacksmithing I or similar experience recommended.**

**a/ April 7-8      Sat-Sun 9 - 5 pm**  
**b/ August 11-12      Sat-Sun**

Tuition: \$230      Materials: \$45  
Instructor: Tim Carr

## Historic Blacksmithing - 317

Perched as we are atop the post-modern world, it is easy to simplify historic technology. This class will not only explore the processes, but also the reasons behind the ways of working iron during pre-industrial America. Using blacksmithing as a case study, this three day class will also explore researching trades through objects and documents, skill preservation, as well as public presentation. While the days will consist of shop work, the first two evenings will have an evening session in Tillers' guest house as well. All blacksmiths will improve their understanding of the craft, whether their focus is contemporary or traditional forms. Museum curators, administrators and interpreters are also encouraged to attend.

**BS I and II strongly encouraged.**

**March 22-24      Thur-Sat 9 - 5 pm**

Tuition: \$330      Materials: \$45  
Instructor: Jim Slining

## Blacksmithing: To a Froe - 318

Historically, wood workers achieved strength and ease of production first through careful material selection, and then initially dimensioning that material by splitting instead of sawing. Instead of cutting through fibers with a saw, splitting (or riving) naturally cleaves wood along separations naturally created between the grain. A tool commonly used to achieve precisely riven blanks is a handled wedge call a froe. Participants of this class will first forge a small basket-maker's froe, followed by a larger 13 inch froe using traditional techniques.

**BS I and II strongly encouraged.**

**May 18-19      Fri-Sat 9 - 5 pm**

Tuition: \$230      \$45  
Instructor: Jim Slining

## Blacksmithing - Making it Stick: a Journey into Forge Welding - 319

Welding processes can broaden a metal smith's vocabulary. Traditional welding processes allows for possibilities unavailable with modern welding processes. While many smiths today are very familiar with modern welding processes, forge welding is often viewed with trepidation. This discomfort is increased when successful welding is required for the completion of the project. In this class, the finished object is the weld itself. We will discuss and practice proper fire management, learn about preparing the material for welding, and then exercise a number of common types of forged welds. Limited to six students.

**BS I and II strongly encouraged.**

**June 15-16      Fri-Sat 9 - 5 pm**

Tuition: \$230      Materials: \$45  
Instructor: Jim Slining

## Blacksmithing: Weathervanes - 320

What would look better on your shop than a hand forged weathervane you've made yourself? In addition, this project is a great way to improve on some basic blacksmithing and toolmaking skills. In the class we'll be making a weathervane based upon an example that was in the Jim Sorber collection. It's a great piece of folk art that has a whimsical nature.

This piece involves a lot of blacksmithing techniques. We'll be making some simple tooling. And, there's forge welding, riveting, upsetting, splitting, punching, drifting, bending, and a bit of sheet metal work to boot. Some experience in basic blacksmithing is needed.

This is a fun project and one that you can admire for years to come!

**BS I and II strongly encouraged.**

**April 20-22      Fri-Sun 9 - 5 pm**

Tuition: \$375      Materials: \$50  
Instructor: Nathan Allen

## Small Foundry Work & Pattern Making - 340

Learn to cast aluminum in green sand molds. Begin with mixing your own sand and making a small furnace. Fuels, furnaces, and crucibles are discussed, challenges of patterns and molding are explored. Learn different techniques for duplicating objects. Bring a small, simple object for use as a casting pattern.

**May 5-6      Sat-Sun 9 - 5 pm**

Tuition: \$220      Materials: \$30  
Instructors: Paul McGuire, Russ Allen, and Joe Rafacz

# More Metalworking

## Basic Coppersmithing - 345, *New Class!*

This is a beginners class for those who are interested in learning the basic skills to manipulate copper. Students begin by learning to deburr, clean and anneal copper. Basic hammer control introduces texturing. Design layout and chasing will add another skill level by introducing chisels and their unlimited uses. Students will also learn the technique of silver soldering and low relief. Finishing up with a patina finish will highlight the texturing and designs. Students will take home four class projects. These include a coupon, pencil caddy, vase and an eight inch plate. The plate will be sunk in the center and highlighted with a low relief design.

**March 3-4 Sat-Sun 9 - 5 pm**

Tuition: \$235 Materials: \$40

Instructor: Doc Schertz

## Beginning Tinsmithing - 350

Students will be introduced to the basics of tinsmithing. The class will start with a simple project that each of us will work through at the same time. After finishing up with the first project, we will then choose individual projects to work on for the remainder of the class. There will be a variety of project choices which the student can choose from. Past choices have included a variety of mugs, canisters, baking pans, mixing bowls, candle holders, etc. Starting with basic layout and pattern making, we will walk through the cutting, forming, and assembly of the project. Students will take home their finished projects.

**March 30-31 Fri-Sat 9 - 5 pm**

Tuition: \$210 Materials: \$40

Instructor: Mic Runyon

## Tinsmithing: Pattern Layout- 351

For beginners and advanced students. Being able to layout patterns is a vital to increasing your overall tinning skills. Starting with the study of construction techniques, we will be exploring the development and layout of patterns used in the creation of tinware. Parallel and radial line development will be demonstrated and practiced in depth with easy to understand steps. Students will be laying out the flat patterns for various geometrical shapes, including frustums of cones. We will also be looking the art of reproducing an object, and how to get full size measurements from a photograph.

**July 6-7 Fri-Sat 9 - 5 pm**

Tuition: \$210 Materials: \$40

Instructor: Mic Runyon



## Tinsmithing: Tea and Coffee Pots - 352

We will look at a variety of tea pot, coffee pot, and coffee boiler styles from the eighteenth and nineteenth centuries. Uses and construction techniques of each piece will be discussed. The students will then work through the processes of creating a vessel of their choosing from the choices available. The project options will range from relatively simple Shaker style tea pots to complex Filey style bent spout coffee pots. Projects will be based on time restraints and students' skill level. ***Experience in historical tinsmithing techniques preferred but not required.***

**Sept 28-29 Fri-Sat 9 - 5 pm**

Tuition: \$210 Materials: \$40

Instructor: Mic Runyon

# Coopering Classes



## Coopered Buckets/Piggins - 445

The cooper was essential to packaging early fluid products. Learn to make your own small bucket or piggins. Use your newly made cooper's tools (*Coopering Tools - 455 class*) or ours to shape bucket staves and to cut the croze for tight bottom fits. The skills learned in this class enable you to make traditional straight-staved items.

**Piggins/ April 28-29 Sat-Sun 9 - 5 pm**

**Buckets/ October 13-14 Sat-Sun**

Tuition: \$240 Materials: \$35

Instructor: Eric Edgin

## Coopering Barrels (Pin) - 447

This class moves students from straight-stave to tapered stave coopering. Water-tight coopering is the most difficult form of coopering. Students learn to make bent staves and assemble them into traditional barrels. In this class, each student will complete a 5 gallon pin keg made with white oak. **Prerequisite: Coopering Buckets or Piggins.**

**June 13-17 Wed-Sun 9 - 5 pm**

Tuition: \$550 Materials: \$100

Instructor: Chuck Andrews and Ben Aldrich

## Tools for Coopering - 455

Many of the specialty tools of the cooper are hard to find, new or used. Learn to make your own using basic blacksmithing and machining skills. This class has substantial value and expands the skills of a cooper into the realm of tool-making.

**Straight Stave Coopering Tools: *inshave, croze, hollowing knife, gauges, and bands***

**April 26-27 Thur-Fri 9 - 5 pm**

Tuition: \$225 Materials: \$50

**Barrel Making Tools: *floor jointer, hoop driver, froe, and rivet set***

**October 11-12 Th-Fri 9 - 5 pm**

Tuition: \$225 Materials: \$50

Instructor: Chuck Andrews

## Coopering: *Mary Rose* Tankard - 446

This small coopering project is a straight staved small container, with a twist, mainly the handle, and cover. These containers were traditionally used as drinking vessels. We will make them in cedar, unlike the originals (pine), and will use metal and/or wooden material bands. The *Mary Rose* was a 16th century English naval warship. Its wreck was rediscovered off the coast of the Isle of Wight in 1971. The same style of tankard was found among the wreckage.

**June 8-10 Fri-Sun 9 - 5 pm**

Tuition: \$240 Materials: \$35

Instructor: Fred Rogers

## Production Barrel Making - 449

Explore machine methods to make barrels using common woodworking machines found in most home shops or available at a reasonable cost for a serious cooper. Each student will leave with a 15 gallon barrel made during the class. We will make extensive use of power joiners, planers, table saws, band saws and routers during the class. Excellent class for the small-scale artisanal cooper. **Coopering Barrels is a prerequisite or the equivalent barrel making experience.**

**October 24-28 Wed-Sun 9 - 5 pm**

Tuition: \$625 Materials: \$225

Instructor: Chuck Andrews and Ben Aldrich

# Timber Framing and other Woodworking Classes

Tillers' Timber Frame classes specialize in historical post and beam construction featuring hand tools such as boring mills and framing chisels. Modern power tools are demonstrated and used on the margins.

## Timber Framing & Raising - 431

Enjoy the full experience of preparing timbers and raising a timber framed building. Fit mortise and tenon joints and peg them with white oak, very much like barn building 150 years ago. An engineer will discuss design elements. Skilled framers guide you through layout, boring and chiseling mortises, forming tenons, cutting wind braces, assembling bents, and finally the thrill of raising day! Enjoy real teamwork! Class projects often involve commissioned structures, otherwise, frames will be sold to help defray the costs of instruction. *Please enroll at least a month in advance to allow for materials preparation.*

**May 7-12 Mon-Sat 9 - 5 pm**

**September 24-29 Mon-Sat 9 - 5 pm**

Tuition: \$625

Instructor: Chris Newman

## Identifying Trees - 406 *New Class!*

In this short course, students will learn the traits of woody plants that allow for their identification using taxonomic keys and field characteristics such as smell, taste and texture. This will include a "crash course" in plant morphology so that different types of leaf arrangement, structure, as well as venation, margins and bases are understood. Emphasis on reproductive characters is essential so we will be sure to review characters of fruits. With a foundation in terminology of woody plant structure, the class will identify as many trees and shrubs as possible on the Tillers' 430 acre farm. The most challenging species to distinguish are those of oaks and hickories and so particular attention will be focused on those. The species we will identify are known to produce some of the most exquisite woods in the world.

**April 6 Friday 9-4 pm**

Tuition: \$100

Instructor: Todd Barkman, WMU

## Identifying Wood - 407

Learning to identify wood species is an indispensable tool whether you are trying to sort through a stack of mixed timbers for a new project or trying to evaluate the strength of an existing timber building or bridge. In this workshop, participants will gain skills needed to identify woods no matter what the sample size, be it a board, a log, or a splinter. The class will focus on common hardwoods and softwoods of North America. Skills learned can be applied to identification of non-native species as well.

**April 7 Sat 9-4 pm**

Tuition: \$95 Materials: \$5 (Handouts)

Instructor: Tom Nehil



*This picture shows students from the September 2017 class raising the first bent of a 10x16 frame. The 2018 classes will*

## Intro to Woodworking with Hand Tools: Shaker Bench, Evening - 400

In this 12 hour workshop, participants will learn the basics of using the bench plane, backsaw, coping saw, chisels, marking tools, brace and bit, among others to construct a sturdy bench that will last a lifetime. Students will learn the importance of sharp tools and various sharpening methods, how to dimension lumber with hand tools, the proper use of the bench plane, accurate layout and marking to ensure tight-fitting joints, backsaw basics, how to create mortise and tenon joinery, and how to apply a durable wipe-on finish. No prior experience required.

**April 3, 5, 10, 12 Tues. and Thur. 6-9 pm each evening**

Tuition: \$220 Materials: \$30

Instructor: Charles Replogle



*consist of a similar project (perhaps a little larger) and, as the one shown, will be for sale first come first served.*

## **Intro to Woodworking with Hand Tools: Dovetailed Box, Evening - 401 New Class!**

In a similar fashion as the Shaker Bench class, students will hone skills in understanding grain direction, hand planing, measuring and marking, hand sawing, component orientation, tool sharpening, and finishing with shellac. However, in this class, with the dovetailed joint component, students will spend more time with the chisel.

**May 21-24 Mon-Thurs 6-9 pm each evening**

Tuition: \$220 Materials: \$30

Instructor: Charles Replogle

## **Intermediate Woodworking with Hand Tools: Dovetailed Wall Cabinet, Evening - 402 New Class!**

Hand tool woodworking experience is strongly recommended for this class, more specifically hand cutting dovetails (see classes 400 and 401). The skills learned and utilized will be a culmination of the skills developed in the above classes. Key learning points include: Cutting dovetails by hand, creating a frame and panel door, reading grain direction, hand planing, chisel use, component orientation, planing grooves, locating shelves, and finishing with shellac. The final product will be a dove-tailed wall cabinet.

**Nov 6, 8, 13, 15 Tues. and Thurs. 6-10 pm each evening**

Tuition: \$265 Materials: \$60

Instructor: Charles Replogle

## **Woodworking: Joinery - 420 New Class!**

This class will focus on hand cutting strong and attractive joints in wood. Students will learn that once they can layout a joint accurately and cut to the line any joint is possible! Students will learn several variations of dovetail and mortise and tenon joints, bridal joints, lap joints, and more! Also learn to sharpen a chisel to a razor edge in less than one minute! All skill levels welcome.

**May 17-19 Thur-Sat 9 - 5 pm**

Tuition: \$325 Materials: \$50

Instructor: Gerren Young

## **Windsor Tall Stool - 470**

***This 2.5 day class is a prerequisite for the Windsor Chair Class.***

Its purpose is to familiarize students with woodturning techniques, the joinery involved in making a Windsor chair or stool, and carving a Windsor style seat. After fabricating the legs, stretchers, and seat, students will assemble them to complete a stool. Topics covered will include sharpening, hand tool use, spindle turning, edge jointing, round mortise and tenon joinery and finishing with milk paint.

**March 9-11 Friday evening (6-9pm), Sat-Sun 9 - 5 pm**

Tuition: \$260 Materials: \$40

Instructor: Jim Crammond

## **Windsor Chairs - 471**

In this 5 day class, students will fabricate parts and assemble them for the construction of a Windsor bowback chair. The class will begin with a log and finish with a completed chair. The topics covered will include riving a log, sharpening, and using a drawknife and spokeshave, bending wood, edge jointing, carving a seat, round mortise and tenon joinery, spindle turning on a lathe, chair assembly, and finishing with milk paint.

**October 2-6 Tues-Sat 9 - 5 pm**

Tuition: \$540 Materials: \$60

Instructor: Jim Crammond

## Bowl Turning on a Spring Pole Lathe - 460, Spring and Winter

This class will begin with a tool-making demo on the morning of the first day, then students will move into wood selection, splitting, and riving out of materials, axing out blanks, and overall efficiency will be covered. For the remainder of the class, students will have plenty of time to turn bowls, receive individual instruction on common mistakes and pitfalls in turning, improve technique and, most importantly, leave with functional items made with their own hands. There will be plenty of time to discuss bowl aesthetics, design, and utility. Be prepared for considerable physical exertion on the foot-powered lathe!

**March 21-24 Wed-Sat 9 - 5 pm**  
**December 17-20 Mon-Thur 9 - 5 pm**

Tuition: \$475 Materials: \$50  
Instructor: Nate Chambers



## Spoon Carving - 438, Spring and Fall

In this wood carving class students will use an axe, straight knife, and hook knife. Carving a spoon from green wood is more efficient than carving cured wood, and you get nice chips instead of sawdust in the process. Students will first learn how to axe out a spoon blank. They will also learn about the qualities of various wood species, wood grain, safe and efficient knife grips, and spoon design for use and aesthetics. At the end of the class students will have completed multiple utensils.

**March 17-18 Sat-Sun 9 - 5 pm**

Tuition: \$225 Materials: \$25  
Instructor: Nate Chambers

**November 2-3 Fri-Sat 9 - 5 pm**

Instructor: Cale Stoker

## Wooden Rakes - 153

This is a basic woodworking class. Students will start with a pair of blanks, cut to size. They will first split the handle blank and rivet the handle to make a split end, then drill the head for tines, and cut a joint to hold it all together. Once assembled, they shape the handle on a shaving horse using a spokeshave. Each student should complete a rake.

**July 28 Saturday 9 - 5 pm**

Tuition: \$75 Materials: \$25  
Instructor: Rob Collins

## An Open and Shut Case Working Wood and Iron: A Toolbox Journey - 459

This small tool (or document) box will provide students the opportunity to practice skills in two mediums- iron and wood. Day one will explore the forging techniques required in a pair of simple "snipe" hinges and a hasp closure. The remaining days will be spent honing hand woodworking processes required for material preparation, layout, and joinery. How to mount hardware is the finale.

**October 18-20 Thur-Sat 9 - 5 pm**

Tuition: \$325 Materials: \$50  
Instructors: Jim Crammond and Jim Slining

## Make A Shaving Horse - 434

The shaving horse is an essential tool for greenwood shops. It is a great illustration of early woodworking techniques. Materials are provided for either splitting a horse out of a log or making one of rough-sawn planks. Project gives practice in hand work.

**November 30-Dec 1 Fri-Sat 9 - 5 pm**

Tuition: \$210 Materials: \$65  
Instructor: John Sarge

## Stone Masonry - 631

Instructors will take you through the history and theory of stone construction, making of mortar, and shaping of fieldstone into building stone. Presentations will provide insight into geology and the characteristics of different stone types, the mechanics of splitting and dressing stone, and the evolution of mortar systems from ancient to modern. You will then have opportunities to practice selecting, splitting, shaping and building with raw materials quarried locally.

**September 20-22 Thurs-Sat 9 - 5 pm**

Tuition: \$350

Instructors: Tom Nehil and Blair Bates

## Soap Making - 140

Students learn soap making techniques before trying their own batch. A choice of essential oils and additives lets you create your own soap. Each will leave with his/her own soap in its mold. *Product: soap, soap mold, recipe packet*

Katheyllynn Gold makes soap using natural colorants, essential oils, botanicals, and oils using techniques learned from soap maker Barbara Jenness. She sells at local markets and stores.

**April 8 Sun 9:00 - 3:00 pm**

Tuition: \$85 Materials: \$15

Instructor: Katheyllynn Gold, Curvey Girl Soap

## Homesteading Practices - 190

On the first day we will visit two small-acreage homesteads that raise small animal livestock and have grown a significant amount of their household food for over forty years.

The second day will be spent at Tillers campus where we will continue the exploration of additional resources, tools, and techniques that have been valuable in the sustainable production of food crops.

In addition to the practical arts of raising crops and animal husbandry the broader conversation of living lives that are grounded in harmony with the other life forms of the planet will be explored.

**May 19-20 Sat-Sun 9 - 5 pm**

Tuition: \$225

Instructors: Jack and Martha Gesmundo

## Appalachian Brooms - 135

Take a traditional skill to a new artistic level. Use hand-tying and stitching techniques to make superb sweeping brooms and great gifts. Learn broom handle selection, preparation, surface finishing, and broom corn selection. Learn the history of broom making. This class will prepare you to move forward with your skills and continue to develop this unique craft. All skill levels welcome.

**Aug 25-26 Sat-Sun 9 - 5 pm**

Tuition: \$225 Materials: \$25

Instructor: Nancy Binkowski

## Rope Making - 155

On small farms and in maritime activities, people depend on ropes for efficient handling and securing of cargo, sails, or livestock. This important skill has application for modern craft, home, and farm use. Learn the basics of laying up and making rope, as well as selection of appropriate materials. Students will make a simple hand-held rope maker to take home.

**July 21 Sat 9 - 5 pm**

Tuition: \$90 Materials: \$10

Instructor: Joe Rafacz

## Beekeeping - 125

Learn the pleasures and cautions of caring for bees. Experienced beekeepers lead you through setting up a hive, seasonal care, queen management, parasite control, and extraction of honey! Explore the relationship between flowers and bees. To get started in beekeeping this year, order your bees in February for a May delivery. We'll help you start.

**May 5-6 Sat-Sun 9 - 5 pm**

Tuition: \$250

Instructor: Shaana Way

## Herb Walk & Medicine-Making - 160 Spring, Summer, and Fall

Herbs are a traditional source of nutrition and medicine. Join us for an herb walk to learn to identify and responsibly forage native seasonal plants with an emphasis on those that foster immunity and vitality, followed by a workshop on preparing herbs for use in teas, tinctures, infusions, and salves.

**Spring - May 5 Sat 1-4:00 pm**

**Summer - June 23 Sat 1-4:00 pm**

**Fall - September 8 Sat 1-4:00 pm**

Tuition: \$50 each

Instructor: Brenna Pixley

# Internships

Each year Tillers International invites internship applicants who are interested in international development and/or farming with draft animals. Most intern compensation is the opportunity to learn rare skills. For the duration of three to nine months, interns work on the farm and in our shops. Their work is focused on hands-on learning in farming, blacksmithing, woodworking, tool design & innovation, and international development. Interns take part in several of Tillers International's classes as part of their training. Many of our interns have gone on to work overseas or on small farms in North America.

If you're interested in a 2018 internship, please submit a letter explaining your interest in Tillers International, a resume, and three references by February 1, 2018 to [Tillers@TillersInternational.org](mailto:Tillers@TillersInternational.org), or via mail at Tillers International, Attention: Internship, 10515 East OP Ave., Scotts, MI, 49088.

Internships generally run from March to November. Exceptions considered on a case by case basis.



# Driving Directions

Tillers is four miles south of I-94 between Kalamazoo and Battle Creek. Take Exit 85 and follow 35th St. south until it ends at MN Ave. Turn right onto MN Ave. and follow the road as it curves to the left/south and becomes 34th St. Go three miles to OP Ave., the first road to the left. Turn left onto OP Ave. Go past the cemetery and the first bridge/set of guard rails. Turn left into the Tillers main entrance. Follow the paved drive past the first building, to the right, up the hill and to the Guest House on your right.

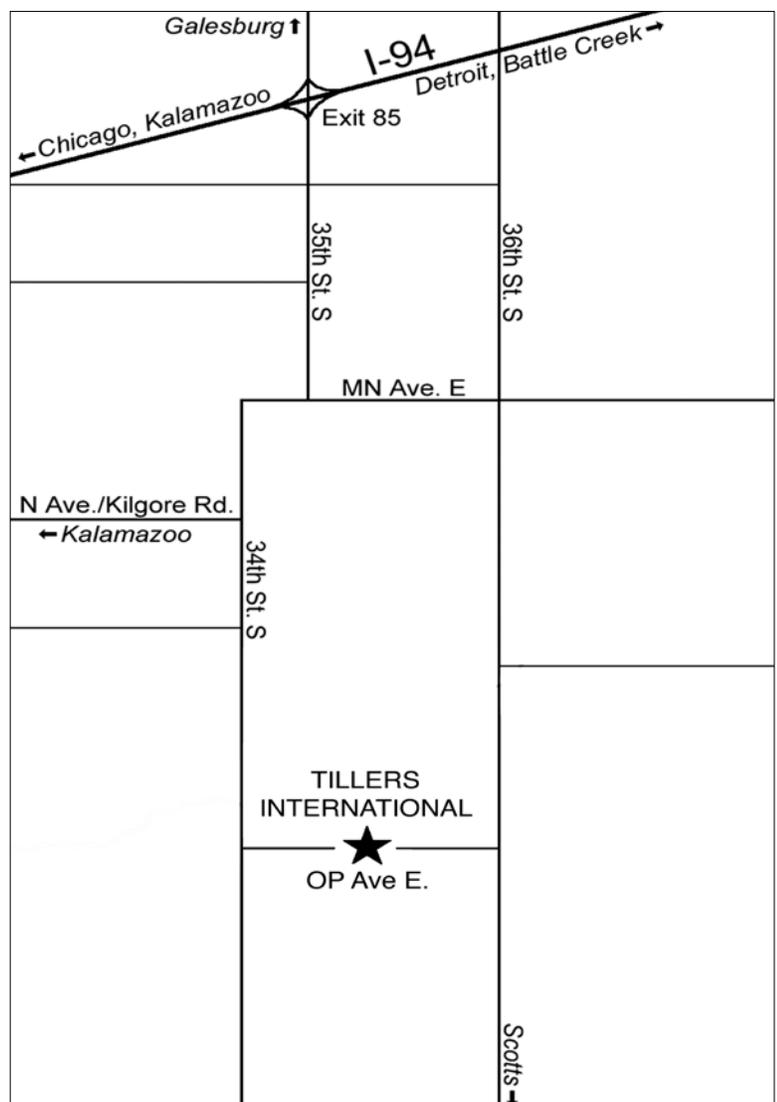
**Air, Train, or Bus:** Rental cars are available at the Kalamazoo/Battle Creek International Airport (AZO). Taxi and Uber services can be obtained from the Kalamazoo Amtrak/bus station and the airport.

**Lodging:** Lodging is available at the Tillers' Guest House. Tent and trailer campers are also welcome. No smoking or pets. Note: we do not have air conditioning. Call for details.

## Local hotels within 10 miles:

**Four Points by Sheraton**  
 3600 E Cork St Ct  
 Kalamazoo, MI 49001  
 (866) 961-3003  
 Ask for the "Tillers International Rate"  
 \$99/night

**Country Inn and Suites**  
 1912 E Kilgore Service Rd  
 Kalamazoo, MI 49001  
 (269) 382-2303  
 Approx 15 minutes from Tillers International  
 Ask for the "Tillers International Rate"  
 \$80/night for room w/ 2 queens



# Tillers International 2018 Class Registration Form

Purchaser's Name: \_\_\_\_\_ Phone: \_\_\_\_\_

Billing Address: \_\_\_\_\_ Email: \_\_\_\_\_

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Subscribe to email list?      Yes      No

Student Name(s): \_\_\_\_\_

**Possible discounts:**

- Multiple class (sign up for 3 or more class today): 5% off	- Patron Members: 10% off
- Group (enroll 3 or more people in a class): 5% off	- Life Members: 10% off

**Only one discount per registration. Discounts apply to tuition fees only.**

## Classes

Class Title	Date	# People	Tuition Fee	Tuition Discount	Tuition Total	Materials Fee
Example: Blacksmithing I	June 2-3	1	\$210	210 x 10% = \$21	210 - 21 = 189	\$40
<b>Totals:</b>						

## Lodging

Room Choice	Full Room or Bed Only?	Beginning Date	# Nights	Fee per night	Total
<b>Tax (6%):</b>					
<b>Lodging:</b>					

## Membership (optional)

Yes, I would like to become a member:     Annual Member (\$50/year, receive printed materials)

Patron Member (\$200/year, 10% tuition discount and receive printed mats.)

Life Member (\$500/once, 10% tuition discount and receive printed mats.)

## Totals

Tuition Total	
Materials Total	
Lodging Total	
Membership Total	
<b>Total Amount Due</b>	

Card #: \_\_\_\_\_ Expiration Date: \_\_\_\_\_

Signature: \_\_\_\_\_ CVV (3-digit code on back): \_\_\_\_\_



10515 East OP Ave., Scotts, MI 49088

(269) 626-0223

Non-Profit Organization

U.S. Postage

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Permit No. 112

Kalamazoo, MI

These classes in the U.S. help preserve traditional skills domestically so we can share them internationally. Make a donation at [TillersInternational.org](http://TillersInternational.org) to allow us to continue collaborating with farmers globally.

