



2015
Gunsmithing
Fine Arts
Certificate



Trinidad State Junior College
600 Prospect St. • Trinidad, Colorado 81082
1-800-621-8752 ext. 5541 or 719-846-5541
donna.haddow@trinidadstate.edu

PRESIDENT'S WELCOME



Excellence. One word says it all. The Gunsmithing School at Trinidad State Junior College has a long tradition of excellence. But don't take our word for it. Our affiliation with the National Rifle Association assures students that the TSJC Summer NRA program is high quality. For nine glorious weeks, the finest craftsmen and artists from the Gunsmithing world gather in Southern Colorado to offer hands-on courses to students from all over the nation and the world. Come enjoy the tradition. Immerse yourself. Welcome to America's Premier Gunsmithing School.

Sincerely,

Carmen M. Simone, Ph.D.
President
Trinidad State Junior College

Welcome from the NRA Coordinator



It is my pleasure to welcome you to the Trinidad State Junior College Summer NRA Program. Whether you are new to TSJC or a seasoned veteran of our Summer Program, we are sure you will find courses to meet your needs.

For those of you interested in the more artistic side of Gunsmithing, we are happy to announce the addition of a Gunsmithing Arts certificate.

Information on the new certificate can be found below. Registrations and questions should be directed to me at the phone number or email below. For complete information on the Summer NRA Program, visit <http://nra.trinidadstate.edu>.

Donna

Donna Haddow
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and NRA Program Coordinator
600 Prospect Street
Trinidad, CO 81082
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Gunsmithing Fine Arts Certificate - 18 credits

New this summer is a Gunsmithing Fine Arts certificate. We have typically offered most of these classes and thought it made sense to put them all together in a certificate along with some basic art education.

Course Information	Name	Credit hours
ART 275	Basic Drawing – Special Topics	2
GUS 129	Introductory Hand Engraving	3
GUS 229	Advanced Hand Engraving	3
GUN 141	Gunstock Carving	2
GUN 292	Scrimshaw	2
GUN 208	Alternative Metal Finishes	2
GUN 140	Checkering	2
GUN 289	Special Topics – Gunsmithing Fine Arts Capstone	2
	Total Credits	18

Schedule - 2015

June 15-19	Scrimshaw
June 22-26	Introductory Hand Engraving
June 22-26	Alternative Metal Finishes
June 29-July 3	Advanced Hand Engraving
July 13-17	Checkering
July 20-24	Basic Drawing
July 20-24	Decorative Gun Stock Carving with Jack Brooks
TBA	Gunsmithing Arts Capstone Project

COURSE DESCRIPTIONS

June 15th - June 19th

Scrimshaw

Learn the Art of Scrimshaw one-on-one with Jim Stevens. You do not need an interest in Gunsmithing to take this course. The techniques taught are the same for anyone wanting to learn how to create beautiful scrimshaw on ivory, resins, and powder horns. An intensive, hands-on course taught by artist, sculptor, and scrimshander Jim Stevens. Jim Stevens is a world renowned scrimshander, writer and artist. He has three books published on scrimshaw techniques, has been commissioned to create works for collectors throughout the world, and is a Kennedy Center Registered VSA Artist in both the visual and literary arts. Jim brings his expertise and his no-fail attitude to inspire all who attend his classes. No other art form in American has a longer history. No other expression of art has such significance or influence on the American spirit.

Jim Stevens is a world renowned scrimshander, writer and artist. He has been commissioned to create works of art for collectors throughout the world. Jim brings his expertise and his no-fail attitude with him to inspire all who attend his classes, paving the way for all to express themselves in a media that warms the soul. No other art form in American has a longer history. No other expression of art has such significance or influence on the American spirit.

stevens@scrimshawstudio.com www.scrimshawstudio.com



Jim Stevens

SCRIMSHAW AND POWDER HORN CLASSES TOOL/SUPPLY LIST

The most expensive item on the following list is less than \$40. I have purchased everything on the list and spent less than \$100. All the items are small enough to carry in your luggage (don't pack liquids or aerosol cans) but it is still easier to buy what you can from the College supply store. Everyone will be given time on our first day to go to the supply store and purchase materials.

The College has a first-class tool, art and office supply store on campus. It is called "The Trek-Inn Bookstore", phone 719-846-5610. Their prices seem to be equal to or less than prices on the outside. Also, buying at the school store can definitely save you a lot of shopping or packing time. You can even give them a call ahead of time and let them know what you need so you can be assured they will have what you want when you arrive. If you already have any of these items, bring them. There's no need to repeat your purchases.

Where to shop, source index:

(You can always order materials from the Internet if you prefer.) a=school store, b=local art store or jewelry supply store or hardware store, c=local supermarket, d=local department store (like Walmart or Kmart)

MATERIALS FOR BOTH SCRIMSHAW AND POWDER HORN CLASSES

Source	Item
a, b	One hobby knife handle (ie: X-Acto knife) (with rubber grip if you prefer)
a, b	Package of 5, #11 hobby knife blades
a, b	One small tube of Titanium White artist's oil paint
a, b	One small tube of Ivory Black artist's oil paint
a,b	One #2 pencil
a, b	One black aquarellable pencil (Stabilo or other brand)
a, b	One white aquarellable pencil (Stabilo or other brand)
a, b	One pencil sharpener (small hand held type)
a, b	One roll of transparent tape
a, b	One pair of scissors
a, b	One pink eraser
a, b	A clear plastic ruler (6 inches long is fine)
a, b	One small can of spray adhesive
a, b	One small bottle of rubbing alcohol
a, b	One small pair of pliers
a, b	One headband magnifier (ie: Opti-visor) (see note below)
a, b	Three sheets each of #400 and #600 wet/dry sandpaper
a, b	One package of .0000 steel wool pads
a, b	One paper dust mask (to use while sanding and polishing)
a, b	Safety glasses or goggles (required in school's tool shops)
c,	One small package of facial tissue
c,	One package of assorted fine point, hand sewing needles
c,	One small package of cotton swabs (Q-tip or other brand)
d,	One small flexible-neck desk lamp. (see lighting note below)
a, b	One double-ended reversible pin vise (one end with zero minimum capacity)

ADDITIONAL MATERIALS ONLY FOR POWDER HORN CLASS

b,d	Hand-held rotary tool with set of small ball bits (Rotary tools by WEN, Black & Decker, and others as low as \$20 on Amazon.com)
b,d shapes)	Set of small hobby hand files (usually comes in set of 6 miniature files in variety of
a, b	Three sheets each of #100, #250, #350 wet/dry sandpaper

The Scrimshaw and Powder Horn materials in-class fee is \$12. This covers the cost of ivory, Tagua vegetable ivory, cattle horn, black buffalo horn, and other materials that I will have on hand for special in-class projects. This is the only in-class fee. I will have all these materials on hand when you arrive.

Headband Magnifier Note: If you have one, bring it. For those buying one for the first time, Opti-visors headband magnifiers are one of the few that come with a choice of lenses. Lens powers are

designated by the numbers 3,5,7, and10. A #3 lens is 1x magnification and allows you to work about 14 inches from your material. Not much bending, but frankly not much help either. A #5 is 2x magnification and allows you to work about 8 inches from your material. I find this is fine for most work. A #10 gives 3x magnification but only about 4 inches of work distance. This is great for minute details but can be hard on the back over long periods of time. I use a #5 Opti-visor lens for general work and switch to a #10 for those times when I need the extra power for very fine details. I guess the best advice I can give new buyers is to get what you think will work the best for you and what fits your budget.

Other Types of Magnification: We will talk about opti-visors, microscopes, thread counters, combination lamp/magnifiers, jewelers loupes, binocular loupes and other types of magnifiers during the course. If you already use any of these magnifiers (or another) and are comfortable and enjoy using what you have, go ahead and bring it.

Lighting (desk lamp note): Our classroom has good overhead light, however you'll soon learn that you need additional lighting on your bench. This is why a desk lamp is on the materials list. Your lamp should have a flexible neck and use a regular incandescent or low power tungsten bulb. What you want is a lamp whose light can be positioned at a very low angle to the bench, with the back of the lamp pointed towards you while reflecting light off the material you are working on.

Other Items: (Not required but nice. Bring them if you can.) Plastic box for your tools and supplies. Notebook and pen (For taking notes during discussions). Seat cushion for your stool (they are hard). Three old hand towels (to pad your work and your elbows and for wiping your fingers). Also bring any additional tools and/or supplies you feel you may want or need, any artwork or pictures you would like to work from, and a file folder for holding handouts.

Scrimshaw Class Final Project: For your final project you will need to purchase and bring with you the material you want to use. If you do not bring your own material for your final project, you may select from what I will have on hand.

I have no business relationship with them, but The Boone Trading Company is a reputable company that has any material you may want for your final project. Their number is 1-800-423-1945. You can go online to review their materials. Their web address is: <http://www.boonetradng.com/>. Your final piece should be a belt buckle, pendant, money clip, or similar item. I recommend a flat blank rather than a domed cabochon, since domed cabochons are harder for beginners, but a domed cabochon will still be okay if that is what you prefer. Also, for pendants, order a pendant at least 30-40mm in length.

Alternative Finishes

This class will explore some of the more common, non-traditional, finishes used in our industry. These will include, but are not limited to, Electroless Nickel, Parkerizing, Cerakote, and other spray on finishes. This course will satisfy the training required by Cerakote to become a certified applicator, but it is up to the discretion of NICs and Cerakote as to whether they will issue a certificate or not based on your shop location.

2-3 Project guns would be sufficient for this class, we will have test pieces available to practice on if there is a finish that you would like to learn, but not put on your own firearm.

Ryan Newport is an Alumni of Trinidad State Junior College. After graduation he spent 6 years working as a repair gunsmith on the high end line of Browning shotguns, since that time he has returned to TSJC as an instructor teaching Benchmetal, Firearms Conversions, Shotgunsmithing, Blueing, and several machine shop classes.

www.trinidadstate.edu

ryan.newport@trinidadstate.edu

office # 719-846-5525



Ryan Newport

Tool List

Set of punches

Small ball peen hammer

Various hand tools for disassembling firearms

120, 220,240,320 grit aluminum oxide cloth backed polishing paper (10yds each)

Personal respirator, approved for painting applications

Safety Glasses

1 box (100) latex disposable gloves in your size

Assorted small 6-10 files in smooth to bastard cut

Touch up automotive spray gun, 4oz cup gravity fed, of good quality. This is just a recommendation for those that want to become certified, it is better to train on your own gun.

Cerakote in any colors that you would like to use, we do not have time to order and get the product in during class.

Projects to be worked on, if you have any questions please feel free to contact the instructor.

Introductory Hand Engraving

****Note** In order for this course to meet the requirements for the Gunsmithing Arts Certificate, classes will run longer each day. Students should report for orientation at 8 a.m. Monday morning. Dr. Pierson will discuss extended class time at the beginning of the course.**

This course covers basic concepts and skills related to hammer and chisel engraving. Special emphasis will be placed on tool sharpening, pattern theory, designing, transferring, and cutting patterns.

Dr. Michael J. Pierson has been an academic administrator and taught technical subjects in a university setting for over 35 years. He has been engraving for 24 years, was trained by Frank Hendricks, and is a member of the Firearms Engraver's Guild of America. He is proficient with both the hammer and chisel and pneumatic engraving techniques and a wide variety scroll patterns.



Dr. Michael J. Pierson

Introductory Hand Engraving Tool List

REQUIRED TOOLS AND SUPPLIES:

1. Engraver's chasing hammer, 1-1/8" face
2. Four 3/32" Carbalt XD blanks
3. #7 straight liner in standard width
4. #12 straight liner in standard width
5. #20 straight liner in standard width
6. Steel ruler, 6 inch
7. Dividers
8. Scribe
9. Stabilio # 8008 pencil
10. Burnisher
11. Dot punch set, No. 1, 2, & 3
12. Optivisor, #3 lens recommended
13. 35mm empty film canister
14. Talcum powder
15. Clear tape
16. Money clip, nickel silver, spring tempered
17. Etching ink

TOOL AND SUPPLY SOURCES:

GRS Tools
900 Overlander Road
Emporia, KS 66801
Phone: 620-343-1084
Toll Free: 800-835-3519
Fax: 620-343-9640
E-mail: GrsTools@GrsTools.com

The Ngraver Company
67 Wawecus Hill Rd
Bozrah, CT 06334-1529
Phone: 800-823-1533
Fax: 860-823-1533
Web site: Ngraver.com/engrave.htm

Rudolph Faust, Inc.
542 South Ave East
Cranford NJ 07016
Email: faust@faustink.com
Phone: 908-276-6555

Stuller
P.O. Box 87777
Lafayette, La. 70598-7777
Phone: 800-877-7777
Web site: www.stuller.com

Lindsay Engraving and Tools
3714 West Cedar Hills
Kearney, Nebraska 68845
308-236-7885
Web site: www.LindsayEngraving.com

REQUIRED TEXTS:

None, complete Power Point notes will be provided.

RESOURCE TEXTUAL MATERIALS:

Abbiatico, Mario, *Modern Firearms Engravings*, Gardone: Mario Abbiatico, 1980 – Library Call Number NE 2700 A 1980 c.2

Bergling, J. M., *Art Alphabets and Lettering*, Quincy, Ill: Gem College Press, 1967 – Library Call Number NK 3620 B4 1967

Bergling, J. M. and Berling, V.C., *Art Monograms and Lettering*, Quincy, Ill: Gem College Press, 1964 – Library Call Number NK 3620 B4 1964

Goloschmiot, Fredrich, *Kunstlerische Warren gravvren*, Stuttgart: Journal – Veriag Schwend, 1977
– Library Call Number NE 2700 G6

Meeks, James, *The Art of Engraving*, Montezuma, Iowa: F. Brownell and Son, 1973 – Library Call
Number NE 2700 M43

Wilson, R. L., *Book of Winchester Engraving*, Beinfeld Publishing Co., 1975

Wilson, R. L., *Colt Engraving*, Beinfeld Publishing Co., 1982

Wilson, R. L., *L.D. Nimschke Firearms Engraver*, Terneck, New Jersey: John J. Malloy, 1965 –
Library Call Number NE 2700 W52 1965

Wilson, R. L., *Steel Canvas – The Art of American Arms*, New York: Random House, 1995 –
Library Call Number NK 6520 W55 1995

OUTLINE OF COURSE CONTENT:

- I. Engraving tools
 - A. Types
 - B. Sharpening
- II. Pattern theory
 - A. Spiral type
 - 1. Circular
 - 2. Elliptical
 - B. Spiral characteristics
 - 1. Corridor type
 - a. True corridors
 - b. Holding corridor
 - 2. Relationship to other spirals
 - a. Common stem spirals
 - b. Overlaid spirals
 - C. Spiral measurements
 - 1. Spiral height
 - 2. Corridor height
 - 3. Extension length
 - 4. Standoff
 - 5. Number of turns
 - 6. Angle of departure
 - D. Leaf anatomy
 - 1. Leaf types
 - a. Adjacent
 - b. Separated
 - 2. Leaf parts
 - a. Sweeps
 - b. Buds
 - c. Lobes
 - 3. Leaf measurements
 - a. Leaf height
 - b. Stem thickness

- c. Sweep height
- d. Bud height
- e. Leaf meter
- f. Leaf width
- g. Leaf separation

III. Designing patterns

- A. Selecting scroll style
- B. Laying out the pattern
 - 1. Outline the panel
 - 2. Establish the panel's center line
 - 3. Draw planning circles
 - 4. Establish point of origination
 - 5. Establish scroll height, corridor height, and rate of turn

IV. Cutting patterns

- A. Hammer and chisel or chasing method
- B. Borders
- C. Lining
- D. Backgrounds
 - 1. Flush
 - 2. Relief
- E. Transfer plates
- F. Transfer techniques

June 29th - July 3rd

Advanced Hand Engraving

****Note** In order for this course to meet the requirements for the Gunsmithing Arts Certificate, classes will run longer each day. Students should report for orientation at 8 a.m. Monday morning. Dr. Pierson will discuss extended class time at the beginning of the course.**

This course covers advanced concepts and skills related to push engraving and hammer and chisel engraving. Special emphasis will be placed on scroll types, precious metal inlay, bulino and banknote engraving, restoring engraving, and lettering. Students should complete the Introductory Hand Engraving course prior to enrolling Advanced Hand Engraving.

Dr. Michael J. Pierson has been an academic administrator and taught technical subjects in a university setting for over 35 years. He has been engraving for 24 years, was trained by Frank Hendricks, and is a member of the Firearms Engraver's Guild of America. He is proficient with both the hammer and chisel and pneumatic engraving techniques and a wide variety scroll patterns.



Dr. Michael J. Pierson

Advanced Hand Engraving Tool List

Engravers Chasing Hammer 1 – 1/8” face
Glensteel 120 degree graver
Three cobalt gravers, .085 sq. x 2-1/2”
#7 straight liner in standard width
#12 straight liner in standard width
#20 straight liner in standard width
Steel ruler, 6 inch
Dividers
Scribe
Stabilio #8008 pencil
Burnisher
Dot punch set, No. 1, 2, and 3
Optivisor, #3 lens recommended
Ngraver handle, Nos. 2, heavy duty
35mm empty film canister
Talcum powder
Clear tape
Etching ink

TOOL & SUPPLY SOURCES

GRS Tools
900 Overland Road
Emporia, KS 66801
Phone : 620-343-1084
Toll Free: 800-835-3519
Fax: 620-343-9640
E-mail: GrsTools@GrsTools.com

Rudolph Faust, Inc.
542 South Ave. East
Cranford, NJ 07016
E-mail: faust@faustink.com
Phone: 908-276-6555

The Ngraver Company
67 Wawecus Hill Road
Bozrah, CT 06334-1529
Phone: 800-823-1533
Fax: 860-823-1533
Web site: Ngraver.com/engrave.htm

Stuller
P.O. Box 87777
Lafayette, LA 70598-7777
Phone: 800-877-7777
Web site: www.stuller.com

Checkering

Course includes pattern design and layout, scribing, pattern transfer, checkering techniques, and finishing. In addition, instruction on the use of the latest hand and power tools is provided.

Glen Morovits grew up along the Mississippi River bluff in southwest Wisconsin. “I usually had a 22LR in my hands as I was chasing squirrels with the dog. Those early years of hunting turned into a lifelong love of the outdoors and firearms”. Glen graduated from TSJC in 1981 and went to work for Don and Noma Allen to build custom rifles. Those were the good old days and the beginning of a 30-year career working in the firearms industry. He is now teaching stockmaking at TSJC and challenging the next generation to carry on the tradition.



Glen Morovits

Checkering tool list

- 1-- Checkering and Carving of Gunstocks" by Kennedy (optional)
- 1-- Dem-Bart S-1 tool with handle
- 1-- " " F-1 90 deg. cutter
- 1-- " " C-1 90 deg. cutter
- 1-- " " 3-20 spacing tool
- 1-- " " 4-20 spacing tool
- 1-- " " 2, 3, or 4 line cutter (optional)
- 1-- “ “ 2-20 spacing tool
- 1-- Jointer tool
- 1-- Dem- Bart 90 deg. vainer
- 4-- W.E. Brownell full view handle
- 1-- white or yellow grease pencil
- 1-- thread pitch gauge or Brownells chekrchex (optional)
- 1--no. 2 optivisor (optional)
- 1--3/4" roll of masking tape
- 1--small brush (tooth brush or fingernail brush)
- 1--small screwdriver

NOTE: All of the above tools and supplies can be purchased At the TSJC bookstore or through Brownells Inc., 200 South Front St., Montezuma, Iowa 50171 Ordering/Tech Support: 800-741-0015 and any can be substituted with something like it you have at home.

The TSJC Bookstore caters to the full-time Gunsmithing students and carries a wide range of books, tools and parts including their own FFL. To purchase items from the bookstore in advance or to ask questions, call Sandra Rodman or staff at 1-800-621-8752, ext. 5610.

July 20th – July 24th

Basic Drawing

This course investigates the various approaches and media that students need to develop drawing skills and visual perception.

TOPICAL OUTLINE:

- I. Media and Processes
 - A. Traditional two-dimensional media and processes
 - B. Experimental two-dimensional media and processes
- II. Visual Elements
 - A. Line
 - B. Shape
 - C. Value
 - D. Texture
 - E. Space
 - F. Linear and Spatial Perspective
- III. Principles of Composition
 - A. Balance
 - B. Scale
 - C. Proportion
 - D. Movement
 - E. Dominance
 - F. Harmony ; Rhythm and Repetition
 - G. Unity and Variety
- IV. Subject Matter
 - A. Representational
 - B. Abstract
 - C. Non-representational
 - D. Historical Perspective
 - E. Narrative
- V. Professionalism
 - A. Criticism and evaluation
 - B. Presentation

Vilas Tonape, a native of India, recently moved to Trinidad as is the new Art faculty at Trinidad State. He has been creating art for over two decades; his work has been exhibited internationally, including venues in New York, Santa Fe, Ontario, Chicago, Bombay, and Los Angeles. Vilas received his BFA in drawing and painting with distinction from Sir J.J. School of Art, University of Bombay, India. He also earned an MFA in Painting from Texas Christian University, Fort Worth, Texas.



Vilas Tonape

Supply list

- Kneaded eraser
- Soft vine charcoal – traditional vine sticks
- Two charcoal pencils – one HB and one 2B
- One blending stump (tortillon)
- One white charcoal pencil
- One long-handle filbert soft-bristle #4 brush (hard bristle)
- About 10 sheets of Felt Gray (or Steel Gray) shade Canson Mi-Teintes Drawing Papers only - standard size 25 x 19 inches.
- Envelope portfolio to hold 18”x 24” (optional)
- Mungyo Gallery Semi-Hard Pastel Sets - Cardboard Box Set of 48

Decorative Gun Stock Carving class with Jack Brooks

This five day class will be a study of traditional decorative carving as found on 18th century American flintlock rifles. Students will learn to carve both incise and relief designs in the manner of old masters from Christian's Spring, Lancaster, and Allentown, Pennsylvania. Jack will furnish practice butt stock pieces that each student will carve and be able to take home as future reference. Students will need their own set of carving tools which will be listed below.

Jack Brooks was born in Colorado, graduated from Englewood High School in 1966, and attended University of Northern Colorado where he majored in chemistry (BA 1970 and MA 1972). He built his first flintlock rifle in 1971. After working four years as a chemist he began making flintlock rifles full time in 1976. Besides making new rifles, pistols, and fowlers; he began collecting and restoring antique Kentucky rifles. This gave Jack the opportunity to study firsthand the finest examples of 18th and 19th century American longrifles. His interest in Kentucky rifles began when a child with Walt Disney's Davy Crockett TV series and John Wayne's movie “The Alamo”. Many years later Jack, along with friends Bob Lienemann and Mike Branson, were asked to make 14 guns for the 2004 remake of “The Alamo” movie. Jack's work has been displayed at The Smithsonian Institute, the NRA Museum, and the Minneapolis Institute of Art. His guns have also been featured in several magazines and books. Jack has authored many magazine articles and has taught several years at the annual Gunsmith Seminar of the National Muzzle Loading Rifle Association.



Jack Brooks

Carving Tool list

Wood carving gouges (Swiss Made from Woodcraft recommended):

2mm No. 7

4mm No.7

6mm No. 7

10mm No. 7

18mm No. 7

20mm No.5

12mm No.3

2mm No. 9

2mm No. 1

5mm No. 1

8mm No.1

cabinet scraper

steel hand burnisher

raw hide or wooden mallet

three bench stones for sharpening (coarse, medium, and hard)

leather strop (3” by 12” piece of saddle leather will work)

desk lamp or work light

pencil and paper

Gunsmithing Fine Arts Capstone Project

This course will be arranged with TSJC staff once the student has reached the point in their NRA Gunsmithing Arts training to complete this requirement.

Provides practical application of the skills learned in the TSJC/NRA Gunsmithing Arts course series using a capstone project model. The student will plan and execute a finished engraving, scrimshaw, or other Gunsmithing Arts related project as agreed upon with their supervising instructor. This is the final course in the TSJC/NRA Gunsmithing Arts Certificate program.

Credit Hours:2

Outline and Competencies –TBA as each student project will be unique