

Art 275 Sec. 5304: LOST WAX CASTING I
Art 276 Sec. 5306: LOST WAX CASTING II
Art 290 Sec. 5334: ADV LOST WAX

INSTRUCTOR: Bill Jamieson
TEXTBOOKS: Tim McCreight, The Complete Metalsmith, and /or
 Tim McCreight, Practical Casting.

SPRING 2005 SCHEDULE

Week	Date	Activity
1	1-19	<u>Continuing Students:</u> Continue to work on wax models. and <u>New Students Only:</u> Discussion of tools, materials, outline of course, and design sources. (Possibly a slide presentation)
2	1-28	<u>New Students:</u> Jewelry Slides. Wax demonstrations.(basic wax techniques, beads, belt buckles, pendants, small sculpture. etc.)
3	2-02	<u>New Students:</u> Tool check, continue demonstrations, (rings, stones, mountings) <u>Advanced Students:</u> Work on wax models or watch demo.
4	2-09	<u>All Students:</u> Work on wax models. Spruing and Investing demo.
5	2-16	Lab 1st investing for those who have completed a quality wax model.
6	2-23	Lab* 1st Casting - - - -
7	3-02	Lab*
8	3-09	Lab* Be ready with your metal.
	3-14 - 3-20	SPRING BREAK
9	3-23	Lab*
10	3-30	Lab*
11	4-06	Lab* Advanced students may NOT invest after April 9. (Unless) ?
12	4-12	Lab*
13	4-20	Lab Last class period to invest for beginning students
14	4-27	Lab Final casting
15	5-04	Lab Finishing of projects for final critique.
16	5-11	<u>Final Critique 6:30 - 8:00 pm</u> Display projects. (workroom closed). (Snacks,)

Evaluation will be on aesthetic quality, creativity, and craftsmanship of your work.

*Investing and casting can be done on each of these weeks...

** **BUT ONLY ONE FLASK PER STUDENT PER CLASS PERIOD.**

** (Exceptions may be made if class size is small.)

DO NOT START TO INVEST AFTER 9:00 PM !

THE MAXIMUM WEIGHT OF A WAX MODEL TO BE INVESTED IS 16 GRAMS.

If items are small, several should be invested together in the same flask.

Please use the **smallest** flask that will fit your wax model.

Large items (belt buckles, etc.) should be one per flask.

If you invest, you must cast the following class period.

Do not wait until the end of the semester to cast !!!!!!! # !!!**!! **or maybe you won't.**

**YOU WILL NOT BE ALLOWED TO INVEST AND CAST ANY COMMERCIAL
FORMS**

LOST WAX JEWELRY - COURSE OUTLINE

COURSE CONTENT

LOST WAX JEWELRY-Introduction

LOST WAX DESIGN-Jewelry/Small Sculpture

DESIGN CONSIDERATIONS-Elements (line, shape/ form, texture, color and value)

- Aesthetics
- Function

WAX METHODS

- Additive (Build-up)
- Subtractive (Carving)

CASTING METHODS

- Centrifugal
- Vacuum-assist
- Pour

PROCEDURES FOR LOST WAX CASTING

Build design in wax.

Sprue design

Invest wax model

Burnout wax

Cast flask

Clean cast piece

Finishing-sawing, filing, grinding, sanding

Buffing-tripoly

Oxidizing

Buffing-rouge

Stone setting

Presentation of completed work

SELECTED BIBLIOGRAPHY

Sharr Choate, *Creative Casting*, New York: Crown Publishing.

Dominic Dipasquale, *Jewelry Making*, Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1975.

Chuck Evans, *Jewelry - Contemporary Design and Technique*, Worcester, MA: Davis Publishing, 1983

Jay D. Kain, *Cast Pewter Jewelry*, Worcester, MA: Davis Publishing.

Philip Morten, *Contemporary Jewelry*, New York: Holt, Rinehart, and Winston.

Oppi Untracht, *Metal Techniques for Craftsmen*, New York: Doubleday.

Robert VonNeuman, *The Design and Creation of Jewelry*, New York: Chilton Co.

Bob Winston, *Cast Away*, Scottsdale: Shelfhouse Publications.

EVALUATION

1. Grades from projects.
2. Attendance.
3. Creativity in design.
4. Technical competency.
5. Attitude.
6. Professionalism.

CLASS BREAKS

Limit yourself to 20 minutes for break time during the four hours class time.

ATTENDANCE

Attendance will be taken for each class period.

Please notify the secretary 285-7277 (pm only) if not attending.

HOUSEKEEPING

Please clean up after yourself. Allow sufficient time for this. Chairs under the table

CASTING ---No Commercial Forms or Models

Several pieces should be cast at one time. Good design and craftsmanship is of great importance. One bronze casting during the semester. Silver, gold or pewter may be used for the other castings.

LOST WAX SUPPLIES

Tool Box (for carrying supplies) wick	Wax tool (A-CW 2 @Lonnie's)	Alcohol Lamp-1/2 pint, 1/4'
Matches or lighter	(1401 C @ Langert-Netzband	Ceramic or Pyrex dish
*Waxes:	Q-tips	*Wick for alcohol Lamp
Sheet-soft pink or green	* #4 Jewelers Saw Blades	Aluminum foil
Sprue or Wire wax (optional)	Toothbrush	Leather gloves
Kerr hard inlay-bar or stick	Sandpaper (assorted)	*MIZZY grinding wheels
Sierra Red wheels	Ring stick (optional)	*Mandrels for grinding
Pliers	Dremel or Foredom Bits	Small knife or X-acto knife
*May be purchased in class	Band aids	*Methanol (alcohol for lamp)

EXPENDABLE SUPPLIES

The following items for this class will be supplied: Acetylene-Oxygen, buffing wheels, filters, tripoly, rouge, oxidizers, Sparex #2, vacufilm, charcoal blocks, silver solder, soldering flux, casting flux, and investment.

WAXES

SHEET WAX is used as a base for pins, earrings, belt buckles, pendants, bolo ties, bracelets, buttons, etc., or in large areas where shaping is needed.

WIRE WAX is used for basic construction and sprues. It's color has no significance.

PECKS PURPLE STICKS OR BARS are used for building all the sculpture forms, rings, texturing, edging, setting for stones, and main sprues. It is also used for strengthening other waxes.

SIERRA RED WAX is used for all aspects of wax forming. It is especially useful in making prongs for stones.

WAX FORMS SHOULD BE AS NEAR THE SAME THICKNESS AS POSSIBLE.

LAMP AND ALCOHOL

Alcohol lamps with methanol alcohol produce very little carbon. Other alcohol (denatured) burns with a yellow flame and produces a great deal of carbon. Carbon in wax is a source of porosity and is more difficult to eliminate in the burnout. It can also cause roughness on the surface of the cast piece.

LOST WAX SUPPLIERS

COMPANY	PHONE #	SUPPLIES
CC Silver 2028 W. Camelback	242-6310	Silver and gold
C & D Silver Mfg. Co. 15846 N. Cave Creek Rd.	992-5440	Silver, tools, lapidary supplies, etc.
Fine Art Tools & Equipment CASTING 2926 N. Civic Center Plaza Scottsdale	946-5858	Waxes, tools, pewter, silicon bronze, Rubber Molds

J & J Casting lapidary waxes, books.	2621 W. Northern	995-4948	CASTING and casting equipment. tools, supplies. stones, gems,
Langert Netzband Jewelry Sup	1526 W. Camelback Rd.	264-1 620	Tools, Pewter, silver wire, wax, bronze
Lonnie's Inc. alcohol	7153 E. Apache Trail, Mesa	832-2641	Tools, gems, waxes, metals, <u>books</u> , acetylene, oxygen, methanol, denatured
1436 N. 44th St.		220-0494	
Rockazona, Inc. lapidary		979-7400	Silver, bronze, stones, gold, waxes, tools,
9241 Grand Ave., Peoria			equipment, methanol, etc.
Shop of Art		967-3681	Pewter. silver, tools, bronze, wax, copper
26 E. University, Tempe			

PLEASE CHECK YELLOW PAGES FOR MORE SOURCES