**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**

<table>
<thead>
<tr>
<th>Week</th>
<th>Date</th>
<th>Activity</th>
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</table>
| 1    | 1-19  | Continuing Students: Continue to work on wax models.  
and New Students Only: Discussion of tools, materials, outline of course, and design sources. (Possibly a slide presentation) |
| 2    | 1-28  | New Students: Jewelry Slides. Wax demonstrations.(basic wax techniques, beads, belt buckles, pendants, small sculpture. etc.) |
| 3    | 2-02  | New Students: Tool check, continue demonstrations, (rings, stones, mountings)  
Advanced Students: Work on wax models or watch demo. |
| 4    | 2-09  | All Students: 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 - - - - Be ready with your metal. |
| 7    | 3-02  | Lab* |
| 8    | 3-09  | Lab* SPRING BREAK |
| 9    | 3-14  | Lab* |
| 10   | 3-20  | Lab*  
Advanced students may NOT invest after April 9. (Unless)? |
|      | 4-06  | Lab* |
| 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  | Final Critique 6:30 - 8:00 pm 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
  Oppi Untracht, Metal Techniques for Craftsmen, New York: Doubleday.
  Bob Winston, Cast Away, Scottsdale: Shelfhouse Publications.

EVALUATION
  1. Grades from projects.
  2. Attendance.
  3. Creativity in design.
  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

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

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

<table>
<thead>
<tr>
<th>COMPANY</th>
<th>PHONE #</th>
<th>SUPPLIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>CC Silver</td>
<td>242-6310</td>
<td>Silver and gold</td>
</tr>
<tr>
<td>2028 W. Camelback</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C &amp; D Silver Mfg. Co.</td>
<td>992-5440</td>
<td>Silver, tools, lapidary supplies, etc.</td>
</tr>
<tr>
<td>15846 N. Cave Creek Rd.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fine Art Tools &amp; Equipment</td>
<td>946-5858</td>
<td>Waxes, tools, pewter, silicon bronze,</td>
</tr>
<tr>
<td>CASTING</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2926 N. Civic Center Plaza</td>
<td></td>
<td>Rubber Molds</td>
</tr>
<tr>
<td>Scottsdale</td>
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</tbody>
</table>
J & J Casting 995-4948
Casting and casting equipment. tools, supplies. stones, gems, waxes, books.
2621 W. Northern
Langert Netzband Jewelry Sup 264-1 620
Tools, Pewter, silver wire, wax, bronze
1526 W. Camelback Rd.
Lonnie’s Inc.
7153 E. Apache Trail, Mesa 832-2641
Tools, gems, waxes, metals, books, acetylene, oxygen, methanol, denatured alcohol
1436 N. 44th St. 220-0494
Silver, bronze, stones, gold, waxes, tools, equipment, methanol, etc.
Rockazona, Inc. 979-7400
9241 Grand Ave., Peoria
Shop of Art 967-3681
Pewter, silver, tools, bronze, wax, copper
26 E. University, Tempe

PLEASE CHECK YELLOW PAGES FOR MORE SOURCES