

Tuscarora Lapidary Society, Inc. Jewelry Investment and Casting Workshop

There are many wax casting methods. Sand casting uses sand as the mold material. Tufa casting involves carving a mold into tufa, a fine-grained volcanic ash, Cuttlebone casting involves cutting a mold or pressing a model into cuttlebone and many more. Centrifugal Casting uses the force of gravity to push molten metal into a mold. Water casting is an interesting way of creating freeform objects. Molten metal is slowly poured into water and cools into unusual, random shapes that can be used to make molds. Steam casting uses the force of steam to force the metal into a mold.

This class will focus on vacuum investment and vacuum casting using the “lost wax” technique (so-called because the wax model is destroyed or lost when the metal is cast).

Students are asked to bring 2 finished ring waxes; either self-made or commercially produced to be cast in bronze. There will be wax ring blanks available for students. Commercial wax patters may be found on Etsy (search Wax Patterns), on eBay (search Wax ring for sale or Wax Patterns), or from www.waxpatterns.com, or www.perkinsjewelrysupply.com/wax-patterns.

If you prefer to cast in silver, you will need to bring your own silver for casting. Please try not to bring scrap with solder to avoid pitting in your casting. Bring basic wax tools for wax work, finishing and spruing, if you have them. Limited wax tools will be available to use in the class. Personal Safety glasses or face visor and fiber filter dust masks are required. (in addition to any Covid-19 masks that might be required at the time).

There may be individual down time while waiting for each turn to invest or cast. You are encouraged to bring wax projects to work on while waiting your turn.

Lunch is not provided, so either brown bag it or there are several local fast food restaurants in the area. There are lite snacks and drinks for sale in the studio.

Safety:

Before we begin, we need to discuss classroom safety and the hazards involved working in a casting shop. The working areas have uneven surfaces and tripping hazards. Power tools, hand tools with sharp edges and cutting surfaces, extremely hot torches, kilns, melting crucibles, caustic chemicals and breathing hazards abound. TLS and its instructors take every precaution to make the classroom as safe as possible for the students and staff. You the student agree to abide by TLS safety rules listed below and hold TLS, its instructors and staff harmless for any injury regardless of cause.

Eye protection: Students are required to wear eye protection at all times when working with wax, tools, investment, vacuuming and while casting.

Filter face mask: Investment is a powdery, plaster type media which is harmful to your lungs. A Fiber Face mask filter can limit the amount of fine powder that you breath and is mandatory when you are working around new or used investment either for investing, casting or cleaning equipment.

Gloves: Casting requires the use of kilns, melting furnaces, torches and other very hot materials. Heavy heat resistant gloves must be worn when using the kiln, electric melting vessels, torches, and while casting, melting metals and handling hot flasks. Heavy Gloves are provided during the class.

Clothing: Wear clothing appropriate for working around machinery.

Shoes: Closed toe shoes are required. Please, no sandals!

Hair: Hair should be tied in back or a hat worn.