

**Honolulu Museum of Art School**  
Lost Wax Casting

Class Location: Metals Studio  
Instructor: James Friedman  
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Overview

In this introduction to wax carving and the lost wax casting process, students learn to use carving tools, sprue and tree strategies, the investment process, casting techniques, and finishing. Through out the session there will be casting days planned according to the flow of work. We will only cast when there is a sufficient amount of work to warrant the running of the oven.

Class Schedule

Week 1:

- Introductions / Hand Out (discuss the basic design)
- Overview of tools and techniques (TOOL SETS) Safety,
- Demonstration: basic ring design (dome) free hand, as apposed to measured/studio time. Begin basic wax carving large domed ring

Week 2:

- Designs ideas Presentation: Images of lost wax cast designs, history, discussion.
- Drawing designs, creating an image of your idea.
- Evaluation of designs and modifications, commence carving design.

Week 3:

- Continue wax carving.
- Discussion: porosity the cause and effect.
- Spruing strategy

Week 4:

- Sprue practice ring on mandrel team work.
- Investment process /specific gravity hand out, discussion
- Wax carving

Week 5:

- Continuation of Wax design development.
- Metal temperatures melt/flow/cast/electric/torch discussion
- Begin Spruing,
- Demo Cast

Week 6:

- Wax carving continuation. Refining your design.
- Treeing , Weighing investing tree's.
- Studio time

Week 7:

- Casting / clipping
- Discussion and Demonstrations: finishing processes pre finishing, polishing, sand blasting, masking.. (buffs, compounds, brushes, pre polish/final polish)
- Studio time

Week 8:

- Demonstration 2/3 dimensional pendant design.
- Continuation of finishing techniques
- Wax carving continuation.

Week 9:

- Spruing, Treeing, Investing for cast
- Wax carving
- Studio Time

Week 10:

- Casting
- Studio Time

Week 11:

- Flex session
- Studio Time

Week 12:

- Flex Session
- Studio Time

Week 13:

- Flex Session
- Studio Time

Week 14:

- Flex Session
- Studio Time

Course Materials

The Lab will provide basic tool sets to be checked in and out during each class session. If you are interested in purchasing tools, supplies and materials please see resources below.

### Resources

Tools and supplies : Stuller Company [www.stuller.com](http://www.stuller.com), Rio Grande  
[www.riogrande.com](http://www.riogrande.com) Local Schwartz company 1149 Bethel St. suite 400  
(808.539.1410) 14kt. Club Waikiki Trade Center (808.924.1014)

### Final Note

This Syllabus is a work in process. Details will be added and subtracted as we go. Your learning is my principal concern, so I may modify the syllabus if it will facilitate your learning. For example, we may discover that we want to spend more time on certain topics and less on others. After consultation with participants, I will consider changing the schedule if such changes would benefit most participants' learning in this course. If you have any special comments or requests please feel free to contact me via email at [jbdesignss@gmail.com](mailto:jbdesignss@gmail.com).

### **Lost Wax Policy**

The objective of this class is to introduce students to the art of wax carving and lost-wax casting. It is an introductory course and not intended for advanced techniques and processes. Students learn to use basic tools, techniques, and materials to design and create individually produced items. Students will first learn to create basic ring and pendant designs and then use these techniques to create original works of jewelry art. The instructor will provide guidance with design technique and project planning but is not responsible for completion of student work.

Students will be allowed to cast items created during class hours only. Students who have their own tools will be allowed to finish items at home or outside class hours but no items that are not at least started during the regular class hours will be cast unless approved by the instructor.

The mold making process will be demonstrated. Students are allowed to make one mold of any one item created during the class, if there is time. Molds will not be made for items made outside of class or copies of designs not made by the student. Instruction includes wax injection; students are allowed to reproduce, in limited numbers, designs they create in class. Molds produced outside of the class will not be injected