

Honolulu Museum of Art School
Wax Carving/Casting/Model Making

Class Location: Metals Studio

Instructor: James Friedman

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Overview

This class will cover basic wax carving tools and techniques, model design and concept, sprue design, placement and soldering, meticulous finishing, powder separation mold making for pendants, production techniques, process, and resourcing. We will cast models only made in this class. The class is not intended for production of multiples. Only molds made during this class will be injected, only waxes made during this class will be cast and made into models. The wax carving techniques taught during this class will be entry level so no previous skills are needed. Not intended for production of multiples.

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:

- Design ideas Presentation: Images of lost wax cast designs, history, discussion (creating a design/Model for multiple purpose) .
- Drawing designs, creating an image of your idea.
- Evaluation of designs and modifications, commence carving design.

Week 3:

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

Week 4:

- Sprue (wax) 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, spruing strategies wax.
- 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.
- Finishing your casting to make the best model/mold
- Wax carving continuation.

Week 9:

- Spruing, Treeing, Investing for cast
- Torch use and safety
- Spruing your model (choosing the proper gauge wire and location soldering)
- Wax carving/finishing

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, Rio Grande 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. For advanced students the possibility of skipping the early learning exercises is an option. If you have any special comments or requests please feel free to contact me via email at jbdesignss@gmail.com.

Lost Wax Casting 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

