

## SILVER SKILLS CHART

**Purpose:** To address the many issues confronted by teachers and students when students are uncertain about which class to take and what skills would be required for each; we are providing the chart below to help you determine which class is right for you.

### Overview:

**Silver 1:** These classes are an introduction to silversmithing. Basic techniques and safety will be discussed along with an introduction to many tools and supplies used in our silver programs. These classes are more technique driven, designed to teach students basic silver smithing skills.

**Silver 2:** These classes will focus on projects that advance techniques learned in silver 1. We ask students to take several Silver 1 classes and continue to work between classes before advancing to level 2. Please ask yourself the following questions and be able to say yes before signing up for a level 2 class.

- 1) Are you comfortable handling a torch and lighting it on your own?
- 2) Are you able to solder a basic bezel seam and then solder to a back plate without melting?
- 3) Are you knowledgeable in the basic tools used in our student tool boxes and the chart below?
- 4) Are you knowledgeable with different types of flux and solder types?
- 5) Are you comfortable using a jeweler's saw, files, calipers and mandrels (bracelet & ring)?
- 6) Are you familiar with basic jeweler's vocabulary?
- 7) Are you comfortable with the basic fabrication methods listed in the chart below?

**Silver 3:** Further continuation of skills and techniques learned in level 1 and 2. Advanced fabrication would include advanced stone settings such as prongs, flush sets, pave setting etc. Additional advanced fabrication would be the following items: boxes, larger pieces using heavy gauged metal and large/multiple stone settings, fabricating in gold, complicated assembly and design.

Skill/Knowledge	Silver 1	Silver 2
<b>Safety</b>	Students learn the basic safety procedures associated with working in a jewelry studio.	Students learn to safely use tools associated with more advanced fabrication such as the hydraulic press, sharp cutting burs, and chemicals such as those used in etching.
<b>Tools</b>	<p>Students learn to appropriately set up and use basic tools including but not limited to:</p> <ul style="list-style-type: none"> <li>• the acetylene/air torch</li> <li>• jewelers saw</li> <li>• flex shaft</li> <li>• common pliers and cutters</li> <li>• ring holder</li> <li>• files</li> <li>• hammers</li> <li>• mandrels</li> <li>• rolling mill - Introduction, basic pattern roll</li> <li>• measuring tools such as calipers, rulers</li> </ul>	<p>Students learn to use tools such as:</p> <ul style="list-style-type: none"> <li>• the miter jig</li> <li>• tube cutting jigs</li> <li>• hole punch pliers</li> <li>• disc cutter</li> <li>• forming pliers</li> <li>• hydraulic press</li> <li>• doming blocks</li> <li>• others specified for special techniques classes</li> <li>• different torches such as little smith, propane/oxy</li> </ul>
<b>Fabrication</b>	<p>Students learn the basics of:</p> <ul style="list-style-type: none"> <li>• measuring, cutting, drilling, filing, basic forming, sanding, annealing and soldering</li> <li>• ring sizing and fabrication</li> <li>• making and attaching bails</li> <li>• hand finishing techniques</li> <li>• make simple clasps and closure</li> </ul>	<p>Students learn to develop and follow a fabrication plan for their designs:</p> <ul style="list-style-type: none"> <li>• choose the acceptable gauge of metal and wire to complete desired projects</li> <li>• machine polish jewelry</li> <li>• alter metal using forming tools, mandrels, hydraulic press, rolling mill</li> </ul>

Skill/Knowledge	Silver 1	Silver 2
<b>Soldering</b>	<p>Students learn to prepare for successful soldering:</p> <ul style="list-style-type: none"> <li>• light a torch and adjust the flame for the job in front of them</li> <li>• choose the form and hardness of solder needed</li> <li>• use a solder pick, cross locking tweezers and other soldering furniture</li> <li>• sweat solder</li> <li>• solder bezels such as plain, scalloped or serrated (no gallery wire), rings, jump rings</li> <li>• discuss the variety of flux and when to use them. Identify the stages of flux change when heating your piece</li> </ul>	<p>Students learn to set up and complete complex soldering operations:</p> <ul style="list-style-type: none"> <li>• use hard solder consistently</li> <li>• use heat sinks to their advantage</li> <li>• prevent solder from reflowing</li> <li>• understand the different types of solder (e.g. wire, sheet, Pallion, paste) and when each should be used</li> <li>• solder small pieces of metal to large pieces with confidence</li> <li>• solder bezels (including gallery wire)</li> </ul>
<b>Stone Setting</b>	<p>Students learn to fabricate settings:</p> <ul style="list-style-type: none"> <li>• rub over bezels with accuracy for round and oval stones</li> <li>• tube set round stones with prefabricated tube settings (no seat cutting or tube cutting)</li> <li>• by using basic setting tools such as punch and hammer, bezel roller, and burnishers to set cabochons</li> </ul>	<p>Students learn to:</p> <ul style="list-style-type: none"> <li>• fabricate bezels for stones with corners and other irregular shapes</li> <li>• raise stones and lower bezels</li> <li>• create basic prong settings</li> <li>• fabricate open backed settings</li> <li>• other techniques specified by the class instructor</li> </ul>