

Cheesemaking and Fermentation

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Classroom Equipment options & ideas.

Heating units.

Don't get the kind with an electric coil (left) they get hot spots and burn the milk much too easily. The hotplate (right) is much better. Both cost about \$25 and are widely available. Hot plates have two issues for you to consider. One, they are fine singly, but when you try to plug in more than 3 at a time on the same circuit you will blow fuses. Your classroom must be wired to handle the load these will put on the circuit. Two, they sometimes can't get the milk up to the 220 degrees we need for some of the recipes. Even on their hottest setting, they only get milk to 212 and that's it. This is not a bad problem because we only need the 220 degrees for a few soft cheese recipes and 212 actually is adequate.



Thermometers:



This thermometer (left) is best for cheesemaking at our size. The dial is easy to read. It doesn't break or malfunction as easily as digital thermometers. It has a clip for attaching to the pot. The probe is only 9-10 inches long – not really long, and that's good since our containers are relatively small. It costs about \$10 and is readily available on Amazon. The kind shown at right is \$6.00 but malfunctions sooner after a dunking in milk or water.



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Pots & containers.

Bowls: Get stainless steel or metal bowls (no aluminum) rather than glass or plastic. You may at times want to use these bowls for heating things, so they are preferred over plastic. And, glass breaks, of course. Metal is tough and can take a lot of dropping, scraping, denting, etc. and is easy to clean.

Measuring cups. I have used plastic sets of $\frac{1}{4}$, $\frac{1}{3}$, $\frac{1}{2}$, $\frac{3}{4}$, and 1 cup. Alternatively, get just a glass 1 cup measuring cup.

Measuring spoons. Just a basic set of $\frac{1}{4}$, $\frac{1}{2}$, 1 teaspoons and a tablespoon is good.

Other utensils. Wooden spoons are good for many uses in this course, and they are relatively cheap. Spatulas are nice, but not essential. Cheese ladles are a good idea but are a bit pricey, you can get away without them if you have a decent wooden spoon. An 8-10 inch long serrated knife is needed.

Colander. You will need this for draining your curd. Get ones that are big enough to hold a pound of cheese curd. Smaller holes are preferable over larger holes. Chose colanders that will fit inside your metal bowl for proper draining and retaining of whey from curds.

Double boiler pots.

Two-quart "enclosed" French double boilers are nice prevent hot water accidents if your students are likely They take a long time to reach desired temperatures mark and can be frustrating for impatient students. I from scalding more than the other type of pots. You top of the handle. Requires distilled water. About a cup per pot, and only needs refilling 1x at the start of the course.



but expensive, about \$75.00. They to be flighty or goof around a lot. and then often overshoot their like them because they prevent milk refill the jacket though a port at the

This is an inexpensive (\$25) double boiler that will work well for our applications. Get something a minimum of two quarts in size.



This option is inexpensive and can be used in conjunction with a metal bowl as the outer heating unit that holds the water. It will be harder to reach high temperatures with the metal bowl as your water bath container however. This set-up is a little more prone to accidents with hot water and I would not use it with high school people.

This is the unit I bought and practice with at home. It is a proper size for doing gallon cheese recipes. It is hard to scald the milk accidentally using this pot, so I like it. It is a good demo pot, especially when you are showing how to cut curd.



Do not use aluminum pots when making cheese! The Al+3 ions that may come from the pot can alter the pH of your cheese recipes.