Suggested Equipment

**Essential Items**
- Camera (phone or tablet camera, [point-and-shoot similar to what we use](#), DSLR)
- Tripod (sturdy, with levels, [a good one like ours is $100+](#))
- Color card or guide (about $20, [example of what we use](#))
- Paper rolls, art boards, poster boards (for a seamless backdrop [we use this](#), $30-$75 depending on size)
- Levels (bull’s eye level and a regular tube level)
- Memory card(s)
- Backup batteries/chargers

**Optimal Items**
- Backdrop stand (we use the [Impact version](#), $100)
- Lights with adjustable stands and umbrellas/diffusers ([we use 2 of these](#), $80-100 each)
- Lightbox ([we use the Impact Digital Light Shed](#), $70-$80)
- Shutter release cable/remote (helps keep camera stable, allows you to take picture remotely, about $25, depending on compatible camera)
- Copy stand (basic one is about $150-300, older models for film cameras also work with digital cameras)

**Other Useful Items**
- Styluses, pointers, wooden chopsticks (for holding down book pages or keeping paper corners flat)
- Museum putty (temporarily holding a round object in place)
- Weights for light stands and/or camera tripods (we use long socks/stockings filled with rice)
- Gaffer tape (taping paper down, super sticky but less likely to lift surfaces or leave residue)
- Small wooden or felted blocks and other various supports (to hold smaller objects up, support items at an angle, or hold furniture doors open/closed, etc., while remaining out of view of the camera)
- Knee pads/kneeling pads (when working on the floor, this saves your knees!)
- Small, strong magnets (holding paper and other things in place, especially when there’s a draft or its windy)
- Clips, various (hold cloth or paper out of the way)
- Teflon and felt furniture sliders (to move large items onto background paper without ripping or dirtying paper)
- Broom, various small brushes, soft cloths (get rid of dirt, dust on background between objects)
- Lint roller (get rid of dirt and dust from various surfaces)
- Notecards/sticky notes (to make a note in a picture with the object, etc)
- Lens wipes (dirty lenses and smudges affect image clarity and create light halos)
- Polarizing lens filter (for shooting reflective surfaces or items behind glass, only for DSLR cameras)
- Clean and wrinkle-free drop sheets/fabric in a solid, neutral color (for hiding/obscuring immovable items that distract from the object being photographed, blocking out unwanted light from a window, diffusing bright light or window that is creating harsh shadows, etc)
Object Photography Tips

Basic Set-up:

- Set up a seamless backdrop on a table top or on the floor. The paper must be wider than the objects being photographed. Paper can be supported by a backdrop stand or simply taped to a wall and corners secured with tape on the floor so that there are no edges visible in the photograph.
- Try to work in contrast so you can see the object clearly. If the object is dark-colored use a white/light gray backdrop. If the object is light-colored use a black/light gray backdrop. When in doubt, use a light gray or a similar neutral backdrop.
- If working with paper as your backdrop, start with the smallest object and work your way up in size. This will help reduce the amount of smudges/dirt on your paper and result in images easier to edit down the line. Brush away any dust/dirt on the backdrop and remove dust/dirt from object.
- Make sure the item you are photographing is fully on the backdrop or away from clutter.
- If not using a backdrop, clear nearby spaces and surfaces of all unnecessary items. The central focus of the picture should be on the object being photographed. Fewer distractions around the object will help accomplish this goal.
- If working with clothing and/or hats, they should be on a mannequin or hanger if at all possible. If not, gently spread out the item neatly and photograph from above. Same goes for objects that need additional support to be viewed in full, use any props necessary to display a museum object so long as it is not distracting.

Taking Photographs:

- Center the object in the frame of the camera to the best of your ability.
- Make sure the object, camera, and tripod are level.
- Use the grid view on the camera screen to help square up the camera to the object. This may require you to tilt your camera at an angle. Using a level helps ensure the camera remains level while tilted.
- Place appropriate-sized ruler, color card, ID tag, etc. near to the object. Do not place these on top or directly next to the object. Leave space between the object and extra items to allow room for cropping these items out during the photo editing process.
- Try to include the color card in every image or in every situation where the light has changed. If the color card gets in the way, take one image with the color card on top of the object, then another image without it.
- If using lights, arrange them so as to enhance the object. Make sure the light is brightening up the dark areas of your object and not casting any hot spots, glare, or creating additional shadows.
- If working with a shiny or reflective material, try to minimize glare and your reflection. Be aware of your own reflection! A shutter release cable can come in handy here, or even a self-timer, so you can get out of the shot. Strategically holding up poster boards can help reduce some reflection or glare in the object.
- Avoid using zoom functions on any camera, just get closer! This will ensure an image that is high-quality and capable of being resized without being grainy.
What to Capture:

- Overall photos: Front, back, top, bottom, and sides (if applicable); both front and back of all 2-D documents and objects (even if the back is blank or identical)
  - Capture the item both straight-on to show the silhouette and at a slight angle (either above or to the side) to show the depth
- Close-ups of any inscriptions/monograms or details that are worth noting or are interesting, construction elements that are visible. Take images of any particular part or aspect mentioned as significant or important in the catalog record.
- Show all ways the object can be displayed (for example, if the object can be opened/closed, if a key can be taken out of a lock). If the object is supposed to open but is presenting an issue, give an accurate description of how this was attempted or if there is an obvious reason why in the notes field (if something is broken/missing/rusted, etc.)
- Multi-part items also need to be gently taken apart (if possible) and imaged both separately and together as a group
- If the accession number is written on the object, get a legible picture of the number and another picture showing its location on the object (and verify # with catalog record)
- Tip: if an object is hard to move, a smaller camera or phone camera can make easy work of capturing hard to reach places like the back or underneath.

When all else fails, look at examples of similar objects on our website, other museum catalogs, auction catalogs, etc., there are a lot of examples online to help you decide how you would like your images to look.
Consistency tips

For cups, pottery, and similar
Begin photographing cylindrical objects head-on, with inscriptions, marks, etc., in direct view. Move the object in a clockwise manner to capture the object from all sides, making sure to capture 3, 6, 9, and 12 o’clock angles, before photographing interior view, bottom, marks/stamps, inscriptions, construction details, and/or other notable elements.

Objects with a handle
If there is only one handle, position the handle to the right, then proceed as directed above

Objects with multiple handles
When there are two (or four) identical style handles, begin with handles directly to the sides, with any marks or inscriptions on the side that is being photographed

For items with two different handle styles, position the larger handle to the right, even if any marks or inscriptions would then be on the side not being photographed

Objects with multiple parts
Photograph all the items together or assembled if applicable, then photograph each part separately.
Image Composition Examples

Bad composition

- Object edge is out of frame
- Background is Styrofoam, and is not a flat/matte color, making color correction difficult
- No color card visible
- Object and ruler are very crooked and too close to the edge of the frame, making it impossible to straighten without further cropping out the object
- Ruler is too close to the object, not lined up to the object’s edge, and cannot be cropped out

- Object is too close to edge of frame at top
- Background is too similar in color, cannot distinguish edges of object
- No color card visible
- Object and ruler are very crooked and too close to the edge of the frame, making it impossible to straighten without further cropping out the object
- Ruler is too close to the object, not lined up to the object’s edge, and cannot be cropped out
**Better composition**

- Object and ruler are square and straight
- Object ID is visible
- No color card visible
- Ruler is too close, see the shadow between ruler and object
- Background is Styrofoam, and is not a flat/matte color, making color correction difficult

**Good Composition**

- All items are straight and evenly spaced
- Ruler is lined up at edge of object
- Ruler, object ID tag, and color card are visible and can be cropped out of the photo
- The background is a flat color/texture, not Styrofoam
- Color card and ruler are visible and not too close to object. Can be cropped out.
- Ruler is lined up at edge of object
- Contrasting background color; can distinguish object edges/details
- Object is straight and centered in frame
Quick List for Checking Images

For each object capture the following:

1. overall view
2. front/back/top/bottom/side views (as necessary)
3. close-up details of signatures & markings / construction details / interesting aspects
4. Notes, labels, cards, or other accompanying information found with object
5. Separate parts that are removable or detachable
6. A group picture of items belonging to a set

Check the images in playback mode on the camera before photographing the next object.

— Is the object in focus?
— Is the ENTIRE object in the picture?
— Are all the parts of the object straight and do they appear level to the camera?
— Is the object centered in the photograph?
— Are the ruler, color card, ID tag, etc. visible?
  o Are all the above spaced far away enough from the object to be cropped out?
— Is the object fully on the background?
— Is the background clean?
— Are there objects in the image(s) that shouldn’t be there? For example: a pencil, eyeglasses, cell phone, cords, your shadow, the tripod legs, your legs, etc.
— Are there shadows that make the edges of the object difficult to distinguish? If so, use more light or reposition lights
— Are the images too dark/light? Camera screens often display images much brighter or darker than they will appear on a computer screen. Get familiar with your camera’s playback display and how it differs from other screens and displays by using test images.
— Should the object be on a lighter/darker background?
— If the object is shiny or reflective--
  o Is there a reflection of the camera or the surroundings?
  o Is there a light glare that obscures the details of object?
  o Can you reduce these using black or light gray poster boards?
— If applicable, did you get a picture of the
  o Signature, stamp, or inscription: did you take a close-up and is it in focus?
  o Any accompanying items/related information found with object
  o Separate parts that are removable or detachable
  o Any broken parts, damage, or other oddities