

# Art 455 Holography Laboratory Instructions

## Mat Cutting

### Introduction

Artists who primarily deal with framed works of art should give serious consideration to using a few standard framing sizes. The hodge-podge method of adding a few inches to the top, sides and a bit more to the bottom, is a poor way to choose an overall framing size and usually yields unsatisfactory results. Some of the most common standard sizes are 8×10, 8-1/2×11, 11×14, 12×16, 14×18, 16×20, 18×24, 24×30 and 26×32. **Generally speaking, wide generous borders that create a natural space for the image are desirable.** When selecting an overall mat size, it is also important to consider how economically that size cuts from full-size sheets of mat and backing.

### General Rules

1. Measure the image size. It is always helpful to lay out the dimensions on a diagram.
2. To figure the side measurement, subtract the horizontal image measurement from the horizontal mat dimension and divide by two. **Side borders are always equal in size.**
3. To figure the top and bottom borders, subtract the vertical image measurement from the vertical mat dimension and divide by two. Then balance the top and bottom by taking away from the top border and adding to the bottom border so that the bottom measurement is 1.3× the top measurement. **The bottom border should always be a little larger than the top. The top should always be larger than the sides.** These rules will keep the image from visually slumping down when it is hanging on the wall.

### Cutting Window Mats

1. Measure and mark the mat board on the back before making cuts (Fig. 1).
2. Each piece of film to be matted requires two pieces of mat board: 1 piece for the window mat and 1 piece for the back mounting mat.
3. Determine the outside and border dimensions. Always work on the backside of the window mat. Using the rules described above lay out the back of the mat lightly with a pencil (Fig. 2).
4. To cut a large board into individual sizes use the knife in the vertical or straight position.
5. To start the cut the blade must be pushed through the mat board until the edge of the cutter handle comes in contact with the guide.
6. After cutting an edge turn the mat 90 degrees and cut the next edge. Repeat until all edges are cut.
7. After cutting into individual mats change to the bevel knife (45-degree angle) to cut out the interior.
8. All inside window mat cuts are bevel cuts which slant in from the larger outside edge to the smaller edge near the hologram.
9. Place an extra mat under the mat you are cutting.
10. Use the white line on the handle as an indication of the knife location.[-6mm]
11. Extend the blade down far enough to just cut through the thickness of the mat board.
12. Hold the backside of the mat firmly in place and make the cut with one even stroke.
13. Turn the mat 90 degrees and cut the next edge. Repeat.

### Separating the Corner

1. The window will fall out if corners are correctly cut. This is not always possible if one is trying to prevent overcuts.
2. If the window does not fall out, finish the cut with a double edged razor. Insert the razor blade from the back, letting it slide smoothly into and through the cut. It will position itself automatically.
3. Cut into the corner slowly with a sawing action until the corner pops out. This cutting action may be required on both sides of the corner.

### Attaching the Film to the Back Mounting Mat

1. **Mounting corners** from a photo store are the best protection. The mounting corners are attached only to the mounting mat, thus reducing possible damage of the artwork.
2. **Strap hinges** are a traditional method and can be made with archival tapes (or temporarily of adhesive tape). Place the hologram face down on a clean surface and attach several 1-1/2" long pieces of tape to the top edge. Attachment should be made with about 1/2" of tape, allowing 1" to extend above the top edge of the film. Turn the film face up and position it on the mounting mat. Attach the film to the mounting mat using the exposed tape ends extending from the top edge of the film to the mounting mat with another 1-1/2 long piece of tape.
3. **Hidden hinges** may be used with floating images when the edges of the film are visible. Position the film on the mounting mat and make light pencil marks where the top corners of the film are. Cut 1" long tape to make hinges. Fold the pieces of tape in half and attach to the mounting mat about 1/2" down from where the top end of the film will be. Place two outside hinges about 1" from the side of the film and place additional hinges with a 4" interval. Reinforce the hinges by placing pieces of tape across the hinge on the mounting mat just below the fold. Crease the hinge with thumbnail so it is laying flat against the mounting mat. Place film back into position using the pencil marks and attach.

### Assembling the Mat Package

1. All mat and backing boards should be properly sized to help prevent the mat from warping when framed
2. The hinging together of window and mounting mats should always be done before placing the film on the mounting mat. To hinge mats together, place window mat face down on a clean surface.
3. Place top edge of backing mat next to top edge of the window mat. Tape along adjoining edge.
4. Fold the mounting mat over into place and align the side and bottom edges of the two mats.
5. Apply pressure across the top of the mat package to fix and crease the tape.

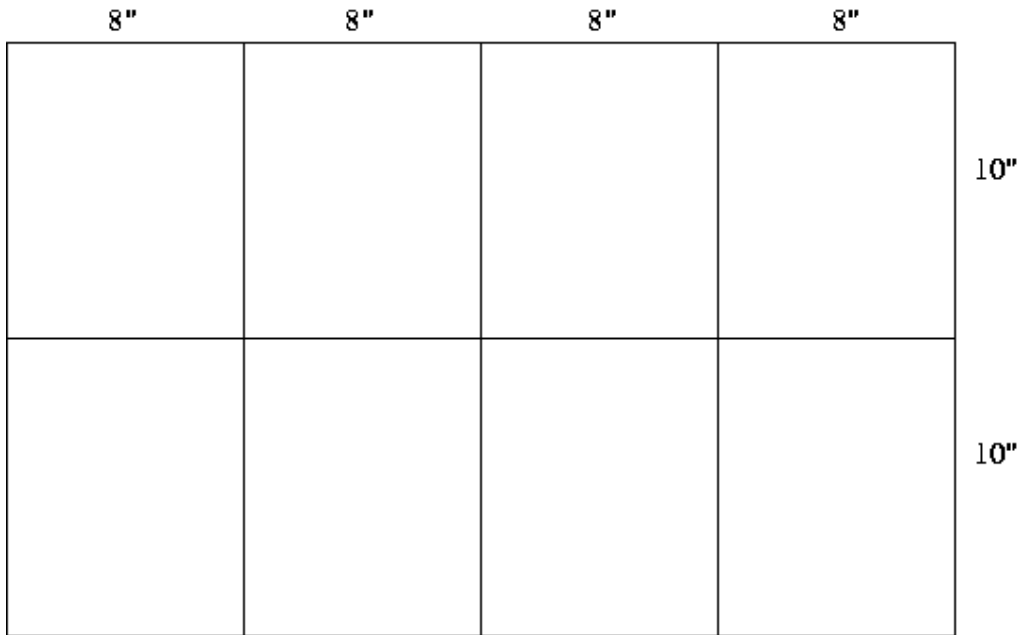


Figure 1: Layout for cutting a 32×20 mat board into individual 8×10 mats.

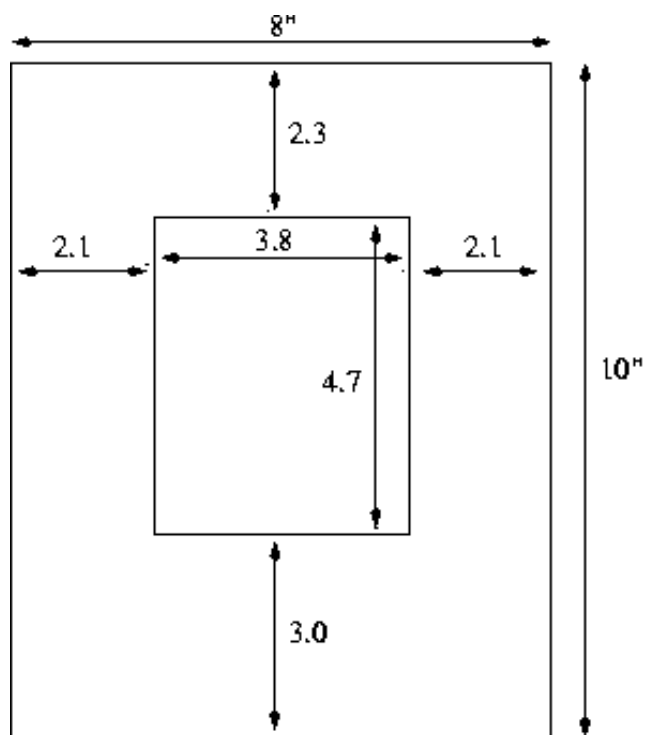


Figure 2: Detailed layout of an 8×10 mat for a 4×5 image.