



**Florida Conference of Seventh-day Adventists**  
**Florida Conference Brigade, Medical Cadet Corps**  
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# Masks Part 2: Homemade Mask Making

## Prerequisites

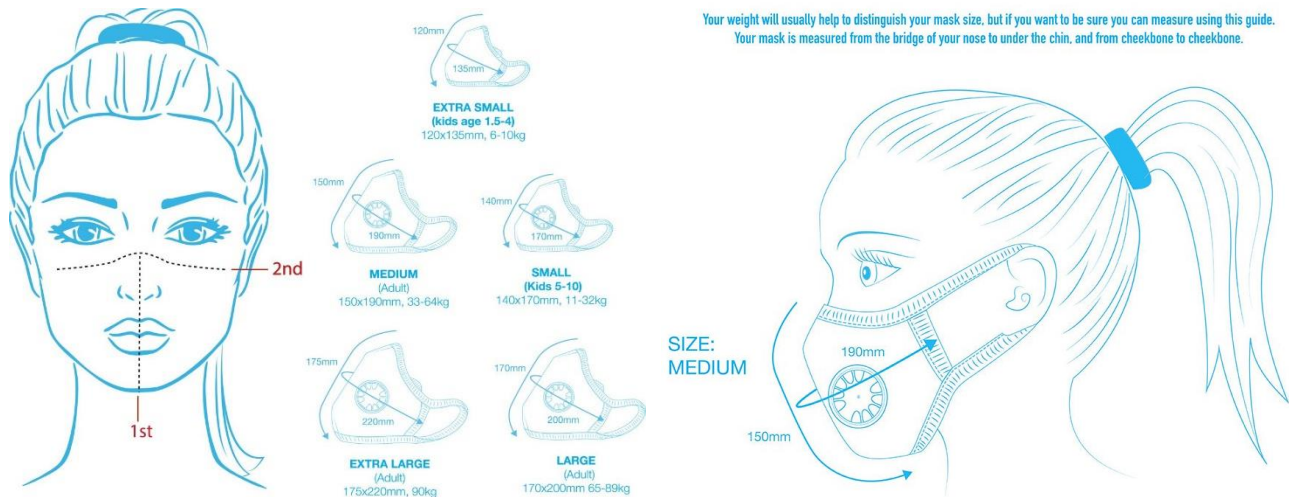
The course of Masks Part 1: Wearing & Types is required.

## Introduction

When it comes to making masks, there are a lot of options of fit, pattern, materials, layers, and more to take into consideration. This course is to mainly as an opportunity to explore the options for mask making with the intention of the class to actually construct at least one homemade mask in the end.

## Sizing Masks

In review, sizing up masks is important such that they do not end up to big and gap or too small and be uncomfortable. Below are some diagrams for a premanufactured mask made by Cambridge Masks, but it illustrates the sizing for the **two primary axes of masks**.



## Materials

Different mask materials allow for different grades of filtration and depending on the desired object to filter and item availability can determine what type of mask to wear in what situation. Effectiveness of filtration is difficult to gauge with homemade masks as they are not standardized. However, the following table is from an academic study for material effectiveness of filtration against two different types of bacteria. Higher percent filtration efficiency is desired and is considered to be more effective.

Material	<i>B. atrophaeus</i>		Bacteriophage MS2		Pressure Drop Across Fabric	
	Mean % Filtration Efficiency	SD	Mean % Filtration Efficiency	SD	Mean	SD
100% cotton T-shirt	69.42 (70.66)	10.53 (6.83)	50.85	16.81	4.29 (5.13)	0.07 (0.57)
Scarf	62.30	4.44	48.87	19.77	4.36	0.19
Tea towel	83.24 (96.71)	7.81 (8.73)	72.46	22.60	7.23 (12.10)	0.96 (0.17)
Pillowcase	61.28 (62.38)	4.91 (8.73)	57.13	10.55	3.88 (5.50)	0.03 (0.26)
Antimicrobial Pillowcase	65.62	7.64	68.90	7.44	6.11	0.35
Surgical mask	96.35	0.68	89.52	2.65	5.23	0.15
Vacuum cleaner bag	94.35	0.74	85.95	1.55	10.18	0.32
Cotton mix	74.60	11.17	70.24	0.08	6.18	0.48
Linen	60.00	11.18	61.67	2.41	4.50	0.19
Silk	58.00	2.75	54.32	29.49	4.57	0.31

<sup>a</sup> Numbers in parentheses refer to the results from 2 layers of fabric.

Table pulled from Davies et al. (2013;

[https://www.researchgate.net/publication/258525804\\_Testing\\_the\\_Efficacy\\_of\\_Homemade\\_Masks\\_Would\\_They\\_Protect\\_in\\_an\\_Influenza\\_Pandemic/figures?lo=1](https://www.researchgate.net/publication/258525804_Testing_the_Efficacy_of_Homemade_Masks_Would_They_Protect_in_an_Influenza_Pandemic/figures?lo=1)).

## Exercise

Construct at least one homemade mask.

## Resources

### 1. Sewtein's Video:

Reviews materials and different patterns for effectiveness: <https://youtu.be/DZBbkn-g-vE>

### 2. UF Mask Prototype 2

Recommends using 2 layers of HALYARD H600 medical fabric and the link connects to the pattern and instructions: <https://anest.ufl.edu/clinical-divisions/mask-alternative/#prototype2>

### 3. Angela Clayton's Mask Making Tutorial

Video Tutorial: [https://youtu.be/H\\_-YJ-Bsi6o](https://youtu.be/H_-YJ-Bsi6o)

Pattern: [https://www.instructables.com/id/AB-Mask-for-a-Nurse-by-a-Nurse/?fbclid=IwAR21M51TOOpUAGWyDtMiav8h5tnwdS7U8iAF8\\_k3Y\\_d0WlwsnApD0pzoG4s](https://www.instructables.com/id/AB-Mask-for-a-Nurse-by-a-Nurse/?fbclid=IwAR21M51TOOpUAGWyDtMiav8h5tnwdS7U8iAF8_k3Y_d0WlwsnApD0pzoG4s)

Alterations of Pattern by Angela Clayton are as follows:

- Marked 1/4" pleats 1" apart, stopping 5/8" away from bottom edge. Removed 1/4" seam allowance at the top and side edges. Used binding that is 1/2" wide when finished.
- All bias tape tutorials overcomplicate it like crazy - here is a breakdown if you're unfamiliar with this process:
- Mark a line on the diagonal grain line of your fabric (AKA - the bias), from selvedge to selvedge.
- Use a ruler to mark lines 2" away from your first marking, also on the diagonal grain line of the fabric.
- Sew strips together and trim seam allowance between strips to 1/4" - press
- Fold the raw edges inward by 1/2" to the center of the strip. Press.

### 4. Bernadette Banner Using Angela Clayton's Pattern

Aesthetically pleasing video which mainly follows Angela Clayton's Video and provides many other resource links in her video description: <https://youtu.be/Pmd4D5Ogepk>

### 5. Website to a simple pattern

Pattern: <https://deaconess.com/How-to-make-a-Face-Mask/Documents-Mask/Mask-Information>

## 6. Infographic pattern

# EASY **DIY** CLOTH MASK YOU CAN SEW

## MATERIALS

1 PIECE  
32 x 23 CM  
CLOTH



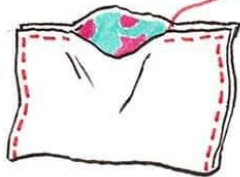
2 PIECES  
25 CM GARTER



1. TAKE A 32 x 23 CM CLOTH.  
FOLD HORIZONTALLY IN  
HALF, INNER SIDE OUT.



2. STITCH THE EDGES IN  
PLACE BUT LEAVE AN  
OPENING AT THE CENTER.



3. CUT OUT THE EDGY  
CORNERS, THEN REVERSE  
THE CLOTH TO REVEAL THE  
OUTER SIDE.



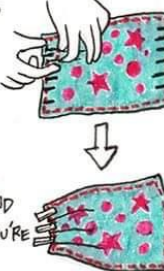
4. AGAIN, SEW AROUND  
THE EDGES.



5. ON ONE SHORTER SIDE, MAKE  
6 CONSECUTIVE 2CM MAR-  
KINGS FROM A CORNER. DO THE  
SAME ON THE OPPOSITE SIDE.



6. MAKE A FOLD  
BY MEETING  
THE FIRST 2 CM  
MARKING WITH THE  
SECOND. SECURE WITH  
A CLIP. DO THIS WITH  
THE THIRD AND FOURTH  
AND THEN, THE FIFTH AND  
SIXTH. MAKE SURE YOU'RE  
FOLDING UPWARD.



7. DO THE SAME  
THING ON THE  
OPPOSITE SIDE. BY  
THE TIME YOU  
FINISH FOLDING,  
YOU'LL HAVE THREE  
HORIZONTAL LINES  
CREATED BY THE  
FOLDS AT THE  
CENTER.



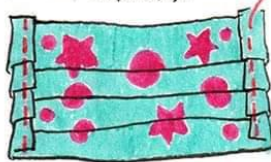
8. STITCH EDGES OF  
THE FOLDS IN PLACE.



9. FOLD THE SAME EDGES 1CM  
INWARD. SECURE IN PLACE  
USING CLIPS.



10. SEW THEM IN PLACE  
LEAVING AN OPENING  
AT THE CENTERS.



11. TAKE TWO 25 CM LONG  
GARTERS. INSERT THEM  
INTO EACH FOLDED SIDE.  
YOU CAN USE A HAIR CLIP FOR  
EASE IN INSERTION.



12. TIE A KNOT AT THE  
ENDS OF THE GARTERS  
TO SEAL THEM IN PLACE.



# SEWING.COM

# Masks Part 2: Making a Mask

For course certification, the form must be filled out.

Member Name (Print) \_\_\_\_\_ Instructor Name (Print) \_\_\_\_\_

Member Position Number \_\_\_\_\_ Instructor Position Number \_\_\_\_\_

Member FEMA SID \_\_\_\_\_ Instructor FEMA SID \_\_\_\_\_

Date of Instruction \_\_\_\_\_



Have Masks Part 1: Wearing & Types Course completed.



Review sizing and materials and importance with homemade masks.



Reference resources.



Construct at least one homemade mask.

With a complete sheet of initials, the instructor's signature signifies certification of completion for the Masks Part 2: Making a Mask course.

Instructor Signature \_\_\_\_\_