# Teaching materials 

## FAS1203 Foundation Sewing

Semester 1 Academic Year 2022

## Chapter 5

## Measurement

## Meaning of body measurement

Body measurement means examining the size of different parts of the body with a dedicated tape measure. to be used in creating a pattern for cutting clothes (Kulnasorn Wisetrojana, 2013, page 296).

Body measurement refers to the use of a tape measure to measure the proportions on the human body. in order to use the size to calculate for creating the next clothing pattern

Accurate body measurements It will provide quality in creating patterns and sewing clothes, saving time. Because you don't have to waste time editing. Loose clothes are less problematic than tight-fitting clothes. Form-fitting clothes that show that proportion need to be very meticulous What is necessary to measure is underwear. Good underwear will enhance the shape and personality of the wearer to look better and another essential thing is shoes to be worn with that dress (Jitrapee). Chavalawan, 2006, page 79)

Preparation before taking measurements

1. The person who is being measured wears a bra that fits the body for the correct measurement result and should wear the bra that was worn when fitting or actually wearing it every time.
2. Don't wear too many pieces of clothing to measure yourself. Or a shoulderenhanced shirt that is so bulky that its true proportions cannot be predicted. should consider appropriate Taking body measurements to create a tailored dress that fits the shape, emphasizing the fit, such as lingerie, evening gowns, etc.
3. Remove items from pockets. skirt bag
4. The person being measured stood in a comfortable position, not stooping or looking down as he was being measured. because it makes the measured proportions inaccurate
5. The person being measured should gird his waist with a waist tape or elastic to see the waist clearly. While measuring, it is fixed at the top or bottom edge of the waist tape, doing the same thing for that particular body measurement.
6. Inserting the finger to arrange the tape measure while measuring, use the method of inserting the index finger or inserting the index finger and middle finger for holding the tape measure to read the width of the measured parts. Will use one or two finger insertion methods to use either method throughout the measurement at that time.

## Measurement

Before sewing clothes into shirts pants or skirt The tailor must first know the proportions of the person who will wear the garment. Measurement is therefore the first step of sewing. which, if able to measure accurately or close to The clothes will then fit the body of the wearer without altering it later. The meter will measure the person in the following steps.

Front length by placing a tape measure on the center button of the front neck. To attach to the front body down.
to the waist


Figure 5.1: Front length

Source : http://krununticha.blogspot.com

Back length by placing a tape measure from the middle button of the back of the cervical vertebrae. to attach the body down to the line waist


Figure 5.2 : Back length
Source : http://krununticha.blogspot.com

Front shoulder is measured from the armpit or armhole folded from one side to the other.


Figure 5.3 : front shoulder measurement
Source : http://krununticha.blogspot.com

Back shoulder is measured from the armpit or armpit line from one side to the other side.


Figure 5.4 : back shoulder measurement
Source : http://krununticha.blogspot.com

Bust height, measured from the center button of the front neck, crossing the tape measure obliquely to the top of the chest on either side.


Figure 5.5 : chest height measurement
Source : http://krununticha.blogspot.com

Chest distance, measured from the apex of one chest to the other.


Figure 5.6 : distance measurement
Source : http://krununticha.blogspot.com

Shoulder Width Measure from the side of the neck at the shoulder seam line to the shoulder button.


Figure 5.7 : measurement of shoulder width
Source : http://krununticha.blogspot.com

Shoulder seam is measured from the neck to the bottom of the shoulder (measured on either side).


Figure 5.8 : shoulder seam measurement Source : http://krununticha.blogspot.com

Around the neck Place the tape measure close to the base of the neck where it meets the shoulder line. Then insert your finger into the tape measure one inch. measure enough to rotate


Figure 5.9 : neck circumference
Source : http://krununticha.blogspot.com

Bust: Measure through the highest point of your bust, aligning the front and back with the tape measure.Do not allow the tape measure to hang or lift.


Figure 5.10 : chest measurement
Source : http://krununticha.blogspot.com

Waist circumference Wrap the tape measure around the waist. Measure at the narrowest part. in the line where the rope is not fit must be very tight


Figure 5.11 : waist measurement Source : http://krununticha.blogspot.com

The circumference of the upper hip is measured through the area of the tummy. It can be difficult to notice for adolescents or those without a tummy. Because the abdomen is flat, notice from the standard that the upper hip line is about 10-11 centimeters below the waist.


Figure 5.12 : upper hip measurement
Source : http://krununticha.blogspot.com

Lower hip circumference Place the tape measure from the waist down about 18-20 centimeters, or at the convex part. The best of the rump and then circle the tape measure around and while measuring, use your fingers to insert two inches into the tape measure Then try moving the tape measure up and down. As long as the tape measure can pass through the buttocks easily, it is considered usable.


Figure 5.13 : lower hip circumference
Source : http://krununticha.blogspot.com

Measure the length of your skirt or pants. by placing a tape measure from the waist line down the front of the leg or side as needed


Figure 5.14 : Measuring the length of a skirt or pants
Source : http://krununticha.blogspot.com

How to measure sleeves to create sleeves While measuring, arms should be slightly bent.

Around the upper arm, insert the tape measure into the axillary channel around the folded arm. Should measure the circumference of the upper arm before measurement. arm circumference


Figure 5.15 : upper arm circumference
Source : http://krununticha.blogspot.com

Arm circumference: Insert the tape measure under the armpit up through the shoulder button to observe that the arm circumference usually has

The area is about 9-12 centimeters more than the average upper arm circumference.


Figure 5.16 : arm circumference measurement Source : http://krununticha.blogspot.com

Around the elbow while measuring, bend the arm in such a way that the lower arm (elbow-fingertip) is parallel to the arm

The upper part is a right angle. Then measure around the elbow.


Figure 5.17 : elbow circumference
Source : http://krununticha.blogspot.com

Wrist circumference Place the tape measure around the wrist button. and then try to slide it up and down so that it can pass easily through your hand without being too tight or too loose


Figure 5.18 : wrist circumference Source : http://krununticha.blogspot.com

Long sleeves, measured from the point of the shoulder through the elbow to the bottom of the button, the number at the point has 2 ranges, the first is Length from shoulder to elbow The second number is the length from shoulder to wrist.


Figure 5.19 : arm length measurement
Source : http://krununticha.blogspot.com

Arm length: Have the subject stand on his waist. Then use a tape measure from the tip of the shoulder past the elbow up to the wrist


Figure 5.20 : arm length measurement
Source : http://krununticha.blogspot.com
long target, measured in a galloping manner from the middle of the anterior waist through to the middle of the posterior waist


Figure 5.21 : long crotch measurement
Source : http://krununticha.blogspot.com

Around the thigh, insert the tape measure into the area of the big thigh. Keep the tape measure on the same parallel level.


Figure 5.22 : thigh circumference
Source : http://krununticha.blogspot.com

Knee Circumference Measure the bulge of the knee. Keep the tape measure on the same parallel level.


Figure 5.23 : measurement around the knee Source : http://krununticha.blogspot.com

Around the ankle, place a tape measure around the ankle. Keep the tape measure on the same parallel level.


Figure 5.24 : measurement around the ankle
Source : http://krununticha.blogspot.com

## Thai standard size

Thai standard (Size Thai) is a size chart (Size Chart) that is a standard for the body shape of Thai people in particular. derived from doing Explore body measurements with modern '3D Body Scanning' technology with 13,442 male and female subjects of various ages.
across the country, ready to analyze and process data with computers it is operated by the National Electronics and Computer Technology Center (NECTEC) under the National Science and Technology Development Agency (NSTDA), Ministry of Science and Technology. (http://www.sizethailand.org)

The standard 'SizeThai' for each size. For men, there are 9 sizes, determined by bust and waist circumferences. For women, there are 10 sizes, determined by bust, waist and hip circumferences.(http://www.sizethailand.org)

- There are 9 sizes for men: size 32, 34, 36, 38, 40, 42, 44, 46 and 48, determined from chest and waist

Thai Men's Standard Size Chart

| ไชล์ | รอบอก |  | รอบเล) |  |
| :---: | :---: | :---: | :---: | :---: |
|  | นึ | เซึบลิแดร | นึ | เซ็นติบตร |
| 32 | 31.0-33.0 | 79.0-84.0 | 25.0-27.0 | 64.0-69.0 |
| 34 | 33.0-35.0 | 84.0-89.0 | 270-29.0 | 69.0-74.0 |
| 36 | 35.0-37.0 | 89.0-94.0 | 29.0-31.0 | 74.0-79.0 |
| 38 | 37.0-39.0 | 94.0-99.0 | 31.0-33.0 | 79.0-84.0 |
| 40 | 39.0-41.0 | 99.0-104.0 | 33.0-35.5 | 84.0-90.0 |
| 42 | 41.0-43.0 | 104.0-109.0 | 35.5-38.0 | 90.0-96.0 |
| 44 | 43.0-45.0 | 109.0-114.0 | 38.0-40.0 | 96.0-102.0 |
| 46 | 45.0-47.0 | 114.0-119.0 | 40.0-42.5 | 102.0-108.0 |
| 48 | 47.0-49.0 | 119.0-124.0 | 42.5-45.0 | 108.0-114.0 |

Table 4 Men's Size Chart Standard Table

Source : http://www.sizethailand.org

Thai Women's Standard Size Chart

| ไชฮ์ | รอบอก |  | รอบเอว |  | รอบสะโพก |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | น้ว | เซ็นติเมตร | น ${ }^{\text {\% }}$ | เข้นติเบตร | นิว | เข็นติเบตร |
| 28 | 27.0-29.0 | 69.0-74.0 | 22.5-24.5 | 57.0-62.0 | 29.5-31.5 | 75.0-80.0 |
| 30 | 29.0-31.0 | 74.0-79.0 | 24.5-26.5 | 62.0-67.0 | 31.5-33.5 | 80.0-85.0 |
| 32 | 31.0-33.0 | 79.0-84.0 | 26.5-28.5 | 67.0-72.0 | 33.5-35.5 | 85.0-90.0 |
| 34 | 33.0-35.0 | 84.0-89.0 | 28.5-30.5 | 72.0-77.0 | 35.5-37.5 | 90.0-95.0 |
| 36 | 35.0-37.0 | 89.0-94.0 | 30.5-33.0 | 77.0-83.0 | 37.5-40.0 | 95.0-101.0 |
| 38 | 37.0-39.0 | 94.0-99.0 | 33.0-35.0 | 83.0-89.0 | 40.0-42.0 | 101.0-107.0 |
| 40 | 39.0-41.0 | 99.0-104.0 | 35.0-37.5 | 89.0-95.0 | 42.0-44.5 | 107.0-113.0 |
| 42 | 41.0-43.0 | 104.0-109.0 | 37.5-40.0 | 95.0-102.0 | 44.5-47.0 | 113.0-120.0 |
| 44 | 43.0-45.0 | 109.0-114.0 | 40.0-43.0 | 102.0-109.0 | 47.0-50.0 | 120.0-127.0 |
| 46 | 45.0-47.0 | 114.0-119.0 | 43.0-46.0 | 109.0-116.0 | 50.0-53.0 | 127.0-134.0 |

Table 5 Women's Size Chart Standard Table

Source : http://www.sizethailand.org

The proportioning measurements performed in this procedure are the most basic measurements. But if you want to cut clothes with more details, such as long sleeve shirts, you need to measure around the armpits more. in order to be loose enough to be able to move in various postures with ease, etc.
measurement proportion


Figure 5.25 : measurement proportion
Source : http://benyapabride.lnwshop.com

## Standard size chart for women

|  | รายการวัดตัว | ขนาดมาตรฐาน |  |  |  | ขนาดตัวเอง |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | ขนาดตัวเบอร์ |  |  |  |  |
|  |  | S | M | L | XL |  |
| 1 | long face | 34 | 35 | 36 | 38 |  |
| 2 | long back | 39 | 40 | 41 | 43 |  |
| 3 | shoulder | 32 | 33 | 34 | 35 |  |
| 4 | back shoulder | 33 | 34 | 35 | 37 |  |
| 5 | high chest | 19 | 20 | 20 | 21 |  |
| 6 | apart | 17 | 18 | 18 | 19 |  |
| 7 | shoulder seams | 12 | 13 | 13 | 14 |  |
| 8 | around the neck | 33 | 34 | 35 | 36 |  |
| 9 | Chest | 80 | 84 | 88 | 92 |  |
| 10 | waistline | 60 | 64 | 68 | 72 |  |
| 11 | upper hip circumference | 82 | 86 | 90 | 92 |  |
| 12 | lower hip circumference | 86 | 90 | 94 | 98 |  |
| 13 | upper arm circumference | 26 | 27 | 28 | 29 |  |
| 14 | arm circumference | 36 | 40 | 42 | 44 |  |
| 15 | around the elbow | 23 | 24 | 25 | 26 |  |
| 16 | around the wrist | 14 | 15 | 16 | 18 |  |
| 17 | long sleeve | 29-50 | 32-52 | 31-53 | 32-54 |  |

Table 6 Standard size chart for women

Source : http://www.sizethailand.org

Proportions needed to create a skirt pattern

| list of measurements |  | standard size |  |  |  | self size |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | number size |  |  |  |  |
|  |  | S | M | L | XL |  |
| 1 | waistline | 60 | 64 | 68 | 72 |  |
| 2 | upper hip circumference | 82 | 86 | 90 | 92 |  |
| 3 | lower hip circumference | 86 | 90 | 94 | 98 |  |
| 4 | skirt length | 50 | 52 | 53 | 54 |  |

Table 7 Table of proportions needed to create a skirt pattern.
Source: http://www.sizethailand.org

Proportions needed to create a trouser pattern

| List of measurements | standard size |  |  |  | self size |  |
| :---: | :--- | :---: | :---: | :---: | :---: | :---: |
|  |  |  | number size |  |  |  |  |
|  | S | M | L | XL |  |  |  |
| 1 | waistline | 60 | 64 | 68 | 72 |  |
| 2 | upper hip circumference | 82 | 86 | 90 | 92 |  |
| 3 | lower hip circumference | 86 | 90 | 94 | 98 |  |
| 4 | around the crotch | 26.5 | 27.3 | 28 | 29 |  |
| 5 | Waist to upper hip length | 18 | 19 | 20 | 21 |  |
| 6 | waist to knee length | 45 | 46 | 47 | 48 |  |
| 7 | pants lensth | 96 | 97 | 98 | 99 |  |
| 8 | knee circumference | 23 | 24 | 25 | 26 |  |
| 9 | around the bottom of the <br> pants les |  |  |  |  |  |

Table 8 Table of proportions needed to create a trouser pattern.
Source : http://www.sizethailand.org

Proportions needed to create a shirt pattern

| list of measurements |  | standard size |  |  |  | self size |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | number size |  |  |  |  |
|  |  | S | M | L | XL |  |
| 1 | long face | 34 | 35 | 36 | 38 |  |
| 2 | long back | 39 | 40 | 41 | 43 |  |
| 3 | shoulder | 32 | 33 | 34 | 35 |  |
| 4 | back shoulder | 33 | 34 | 35 | 37 |  |
| 5 | high chest | 19 | 20 | 20 | 21 |  |
| 6 | apart | 17 | 18 | 18 | 19 |  |
| 7 | shoulder seams | 12 | 13 | 13 | 14 |  |
| 8 | around the neck | 33 | 34 | 35 | 36 |  |
| 9 | Chest | 80 | 84 | 88 | 92 |  |
| 10 | waistline | 60 | 64 | 68 | 72 |  |
| 11 | upper hip circumference | 82 | 86 | 90 | 92 |  |
| 12 | Lower hip circumference | 86 | 90 | 94 | 98 |  |
| 13 | upper arm circumference | 26 | 27 | 28 | 29 |  |
| 14 | arm circumference | 36 | 40 | 42 | 44 |  |
| 15 | around the elbow | 23 | 24 | 25 | 26 |  |
| 16 | around the wrist | 14 | 15 | 16 | 18 |  |
| 17 | long sleeve | 29-50 | 32-52 | 31-53 | 32-54 |  |

Table 9 Table of proportions needed to create a shirt pattern.
Source : http://www.sizethailand.org

Measurements are at the heart of all clothing pattern creation. It is a process that results in making clothing patterns that come out of quality and beauty. Therefore, when measuring, the male being measured must stand straight, not turn around or turn around. because it will cause the measurement process to be inaccurate The resulting proportion will be an error from reality. As a result, it is used to create a pattern and it does not come out well and has no quality. Including the clothes that are sewn out will not fit properly. Size disproportionate to the wearer discomfort in wearing There may be twisting, pulling, bracing or maybe too loose can happen.

In buying ready-to-wear clothing is the same. Buyers should know the proportions or their own body size first. In order to be able to choose to buy ready-to-wear clothes that are closest in size to your own proportions as possible. When wearing it will be comfortable, not too tight or too loose.

1. Describe the method of preparation before measurement in detail.
2. Where should the measurer stand while measuring others?
3. To gird with What are you doing this for?
4. What type of equipment should be used to measure body?
5. Explain the neck circumference measurement.
6. Describe the page length measurement.
7. Explain the chest measurement.
8. Explain the measurement of arm circumference.
9. Describe the height measurement.
10. When measuring any denominator, 2 strokes must be stopped.
11. How many points are there in proportion to create a skirt pattern?
12. How many points are there in proportion to create pants pattern?

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