

1e année licence GTU



1st lesson: Introduction to the technical drawing  
*FREEHAND DRAWING*



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## I- FREEHAND DRAWING

**Drawing is observing, analyzing, and then representing a reality or an idea:** The angle of view, the observation posture, the handling of the graphic tool, the gesture, and the movement of the gaze during the drawing, are so many elements that contribute to a clear and precise representation of a subject.

- Look and memorize proportions
- Work on your skills
- And a diligent practice of drawing

Those are the main objectives of this first course which will be consolidated by a set of freehand drawing exercises and practices.

Freehand drawing; is the basis of building design. It is both technical and architectural, it allows you to give birth and give soul to your projects.

الرسم اليدوي: يسمح بطرح وتفسير الأفكار ويعتبر طريقة قاعدية للتمثيل في العمارة مكملًا بمعارف المنظور ومعرفة أدوات الرسم وحسن استعمالها. كما أنه يوفر وسيلة من الواقع

Freehand drawing tools:

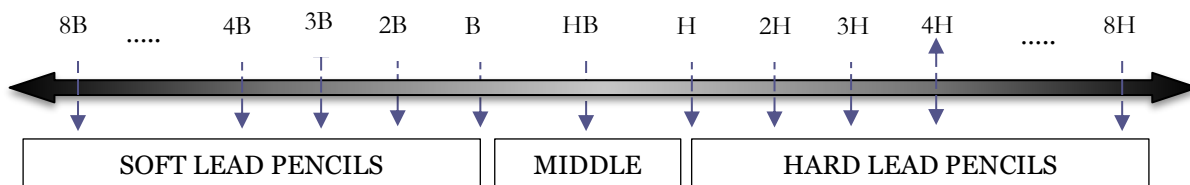
It is important to remember that for freehand drawing, unlike technical drawing, we do not use instruments (ruler, square, etc.). It is a free drawing but **respects the proportions**.

The tools that are used for freehand drawing are:

### 1- PENCILS :

**Hard lead pencils:** they provide fine or gray lines and are suitable for representations based mainly on the lines and structure of the drawing, arteries, contours, etc.

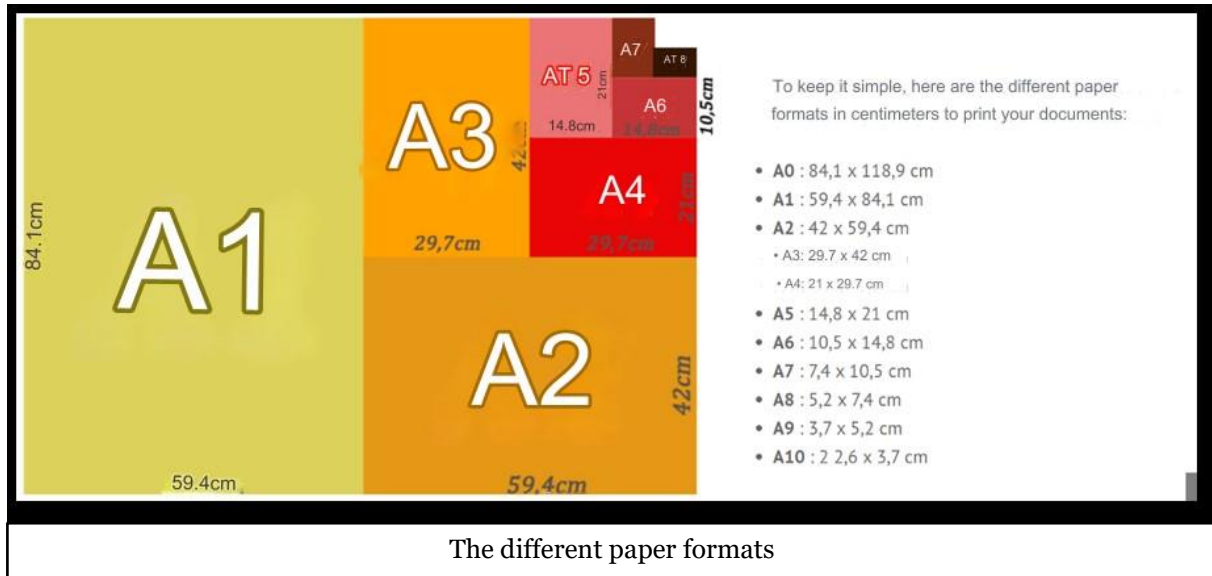
**Pencils with soft leads (bold):** their lines are dark, intense, and more sensitive than those with hard leads. They are more expressive in drawing the lines defining the limit between light & shadow.



PENCIL CLASSIFICATION

## 2- PAPER :

- The quality of the paper: which depends on the grammage (weight expressed in g/m<sup>2</sup>) between 80g/m<sup>2</sup>-200g/m<sup>2</sup>. The choice of weight depends on the drawing technique used.
- The type of paper: transparent (tracing, etc.), opaque (satin, smooth, granular, etc.)
- The format: when choosing the size of the paper, you must take into account not only the proportions of the object to be drawn but also the handling of the paper must be easy



## 3- THE ACCESSORIES :

Erasers, pencil sharpeners, adhesive tape, etc.

### *How to hold your pencil?*

- A little higher than if you wrote
- With a light grip (without squeezing)
- The index finger and thumb which hold the pencil and the middle finger on which it rests with a slight inclination relative to the axis of the hand.
- For longer horizontal lines; reposition the angle formed by the hand and forearm.
- To draw lines that fit into blank spaces, have your hand more stretched and in movement.
- For curves; the hand support acts as a manual pivot.

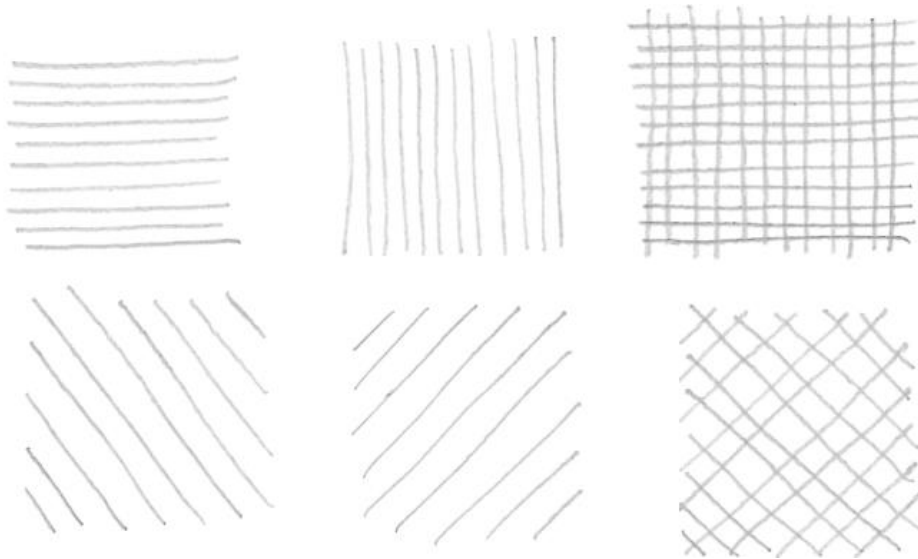
### SIGHT GUIDES GESTURE

APPLICATIONS:

#### A. Straight lines:

The 1st <sup>exercise</sup> consists of learning to draw perfectly straight and parallel lines.

Step 01:



\*\*\* Do as many tests as you think you need. Remember, the more you practice, the straighter the lines will be .

Step 02:

When you feel you have mastered your drawing, carry out this new exercise: **Draw two points A and B on your sheet and try to join them in a straight line without stopping and without lifting the pencil. Move the two points further and further apart to increase the difficulty of the exercise.**



Step 03:

If you succeed, move on to parallel lines: **Draw two lines that you consider parallel, then take a graduated ruler and check that the distance between the lines remains approximately constant.**



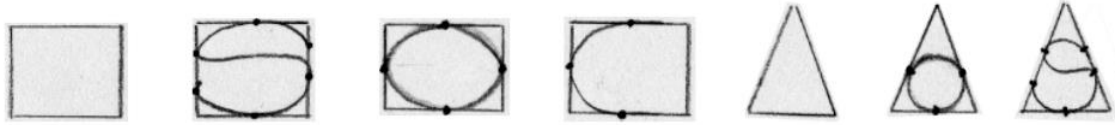
**B. The curves :**

Series No. 1:



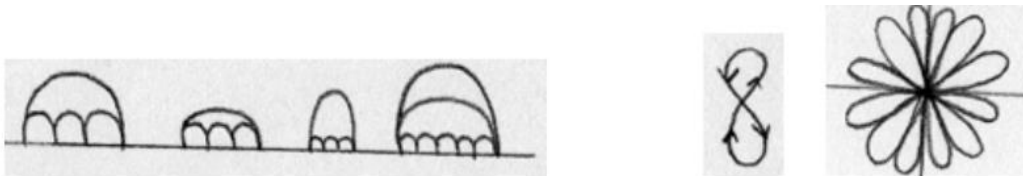
Draw two horizontal lines with a ruler, then, taking care not to exceed them, trace the different shapes freehand, doing your best to make each shape resemble the previous one.

Series No. 2:



Using a ruler, draw simple geometric shapes such as rectangles or triangles. Then try to place the different curves there, making sure to maintain a certain number of contact points.

Series No. 3:



Here are two examples of exercises using a larger number of curves. The first represents an elephant's leg and its variations. The second is done with an assembly of "8" around the two axes, all forming a flower.