TA 101A:2019-20:II

Lecture 16 –Space Geometry III

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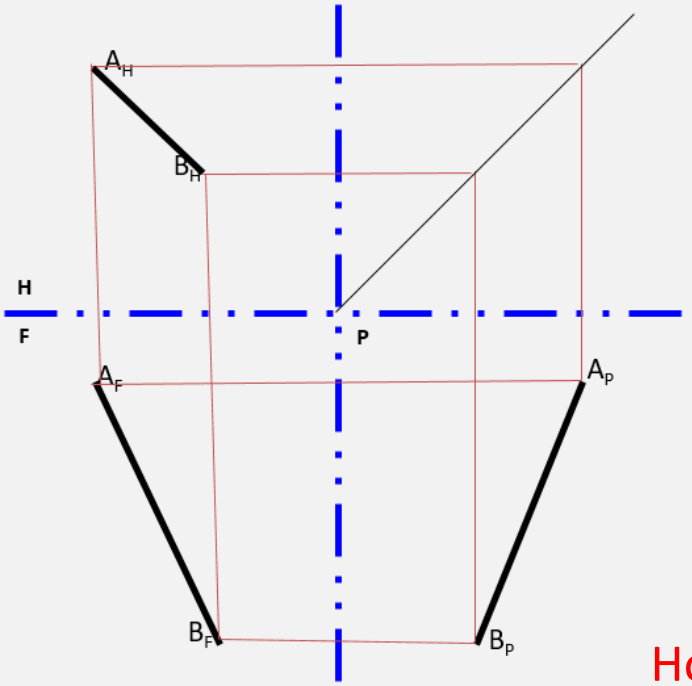
Recapitulation

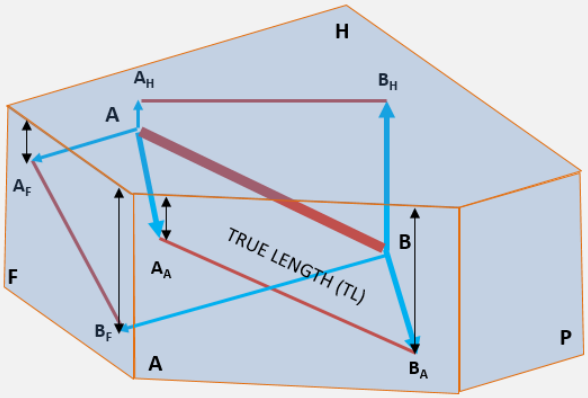
Line classification

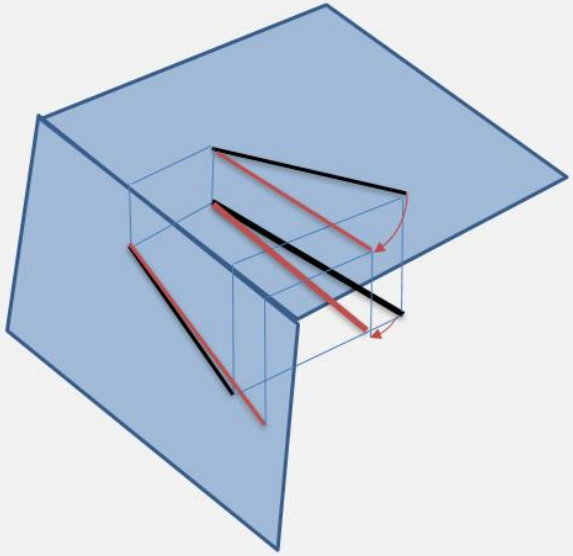
- H-F
- H-P
- F-P
- H
- F
- P
- Oblique

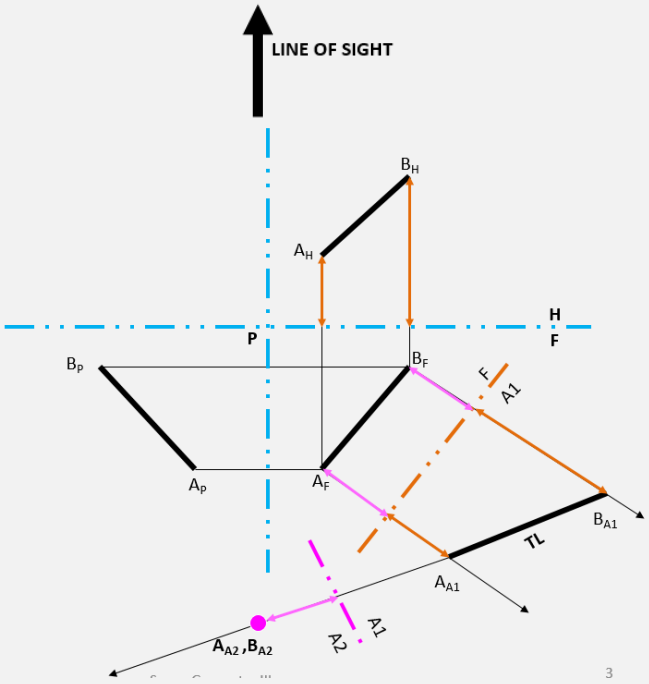


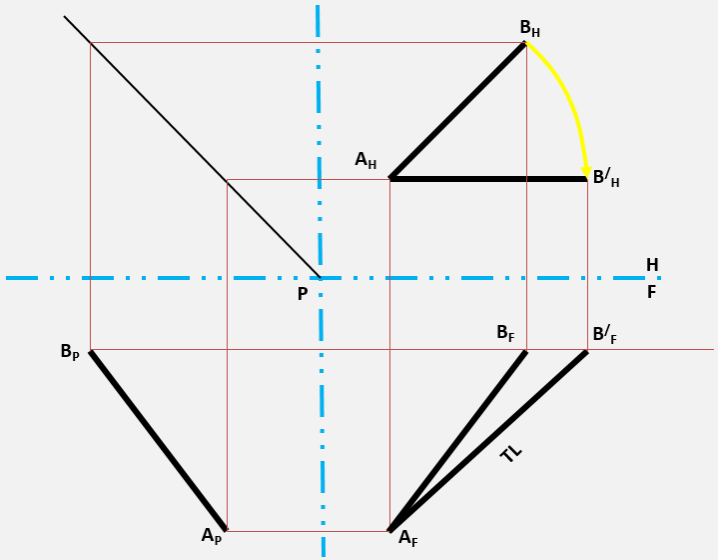
How to determine the true length of this line or true slope and azimuth, i.e., how to know the Normal View of line.

Recapitulation

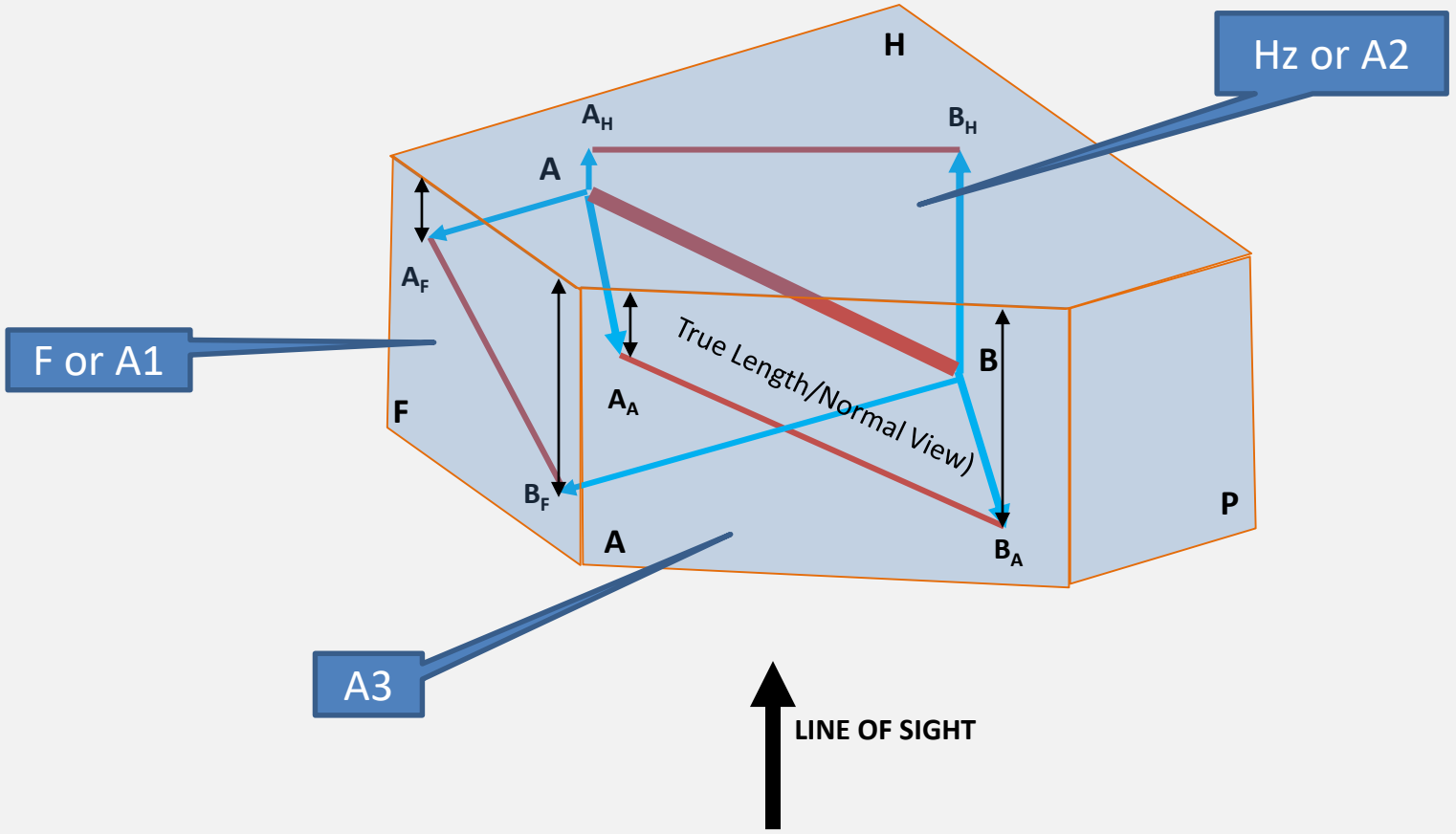








Auxiliary View of an Oblique Line

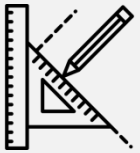


1. Plane on which Auxiliary View is Projected (A3)
2. Plane from which Projectors are drawn (A2)
3. Plane from which measurements are taken (A1)

Note: Auxiliary Plane pairs are orthogonal

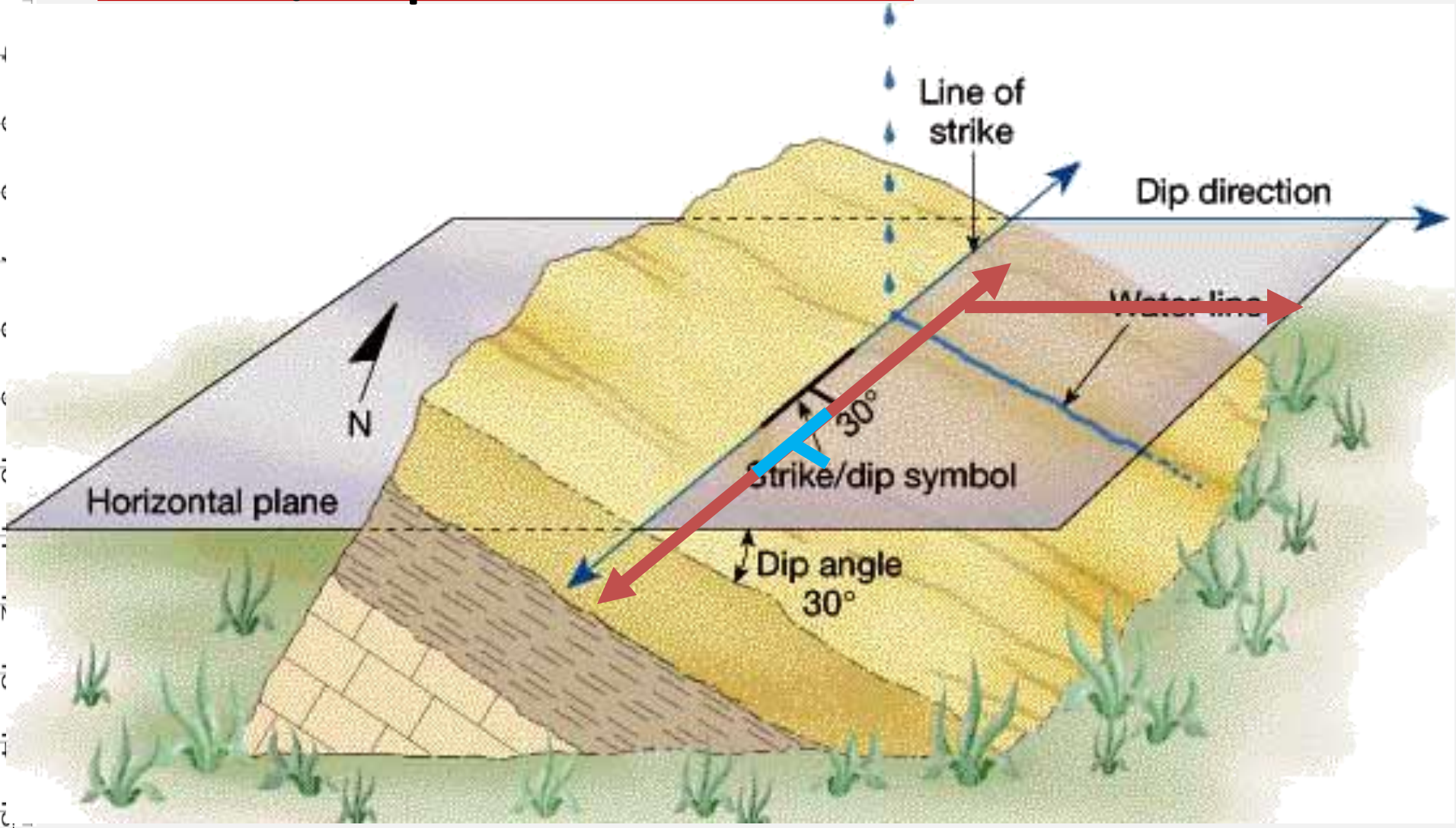
A1-A2; A2-A3

Projection of Planes

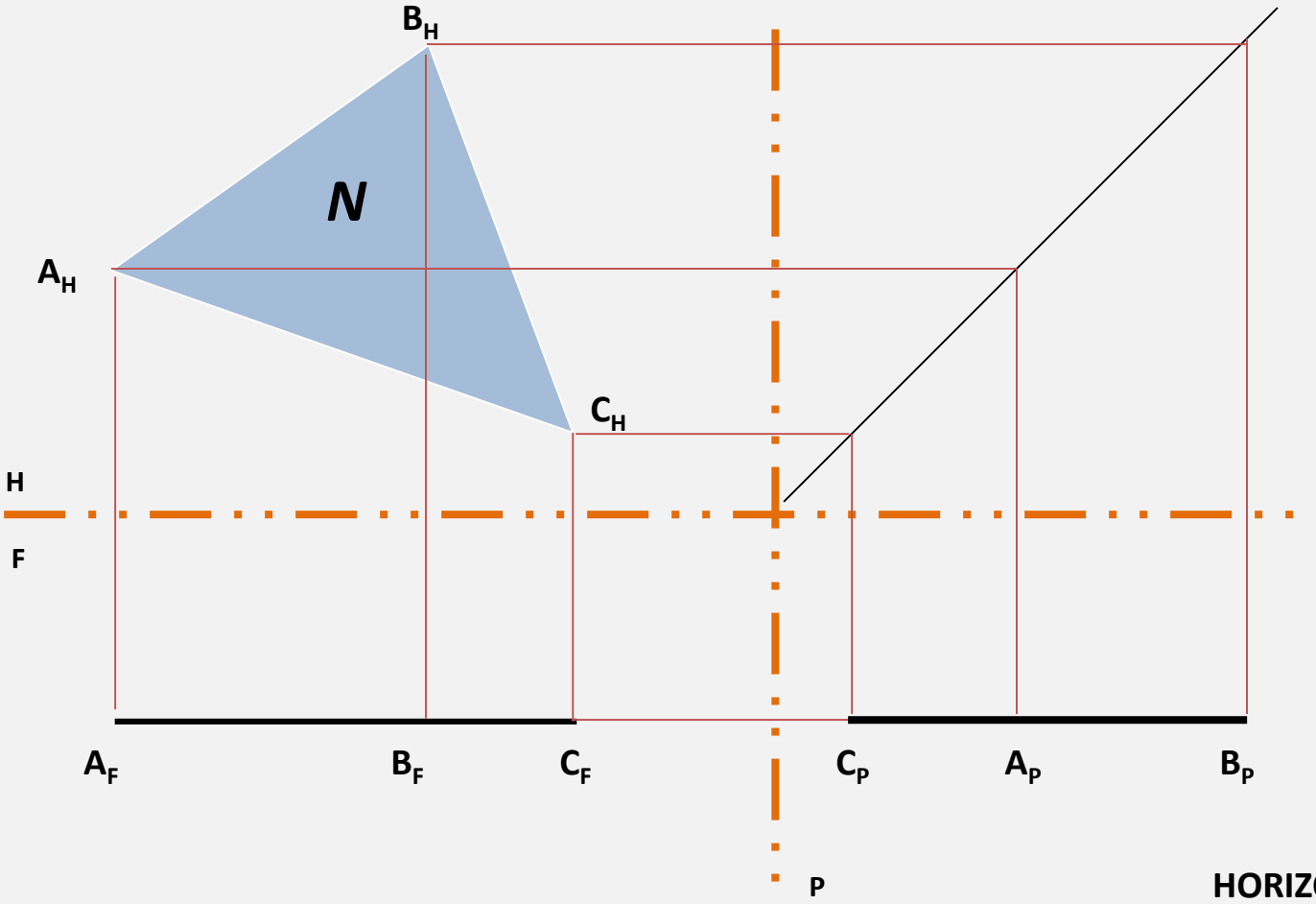


- **Plane**
  - A plane can be defined by three points, one point and one line, two parallel lines, or two intersecting lines.
  - Planes are thought often to be infinite in size. The definition of a plane simply sets its orientation in three-dimensional space.
  - Strike and Dip !!

Strike/Dip

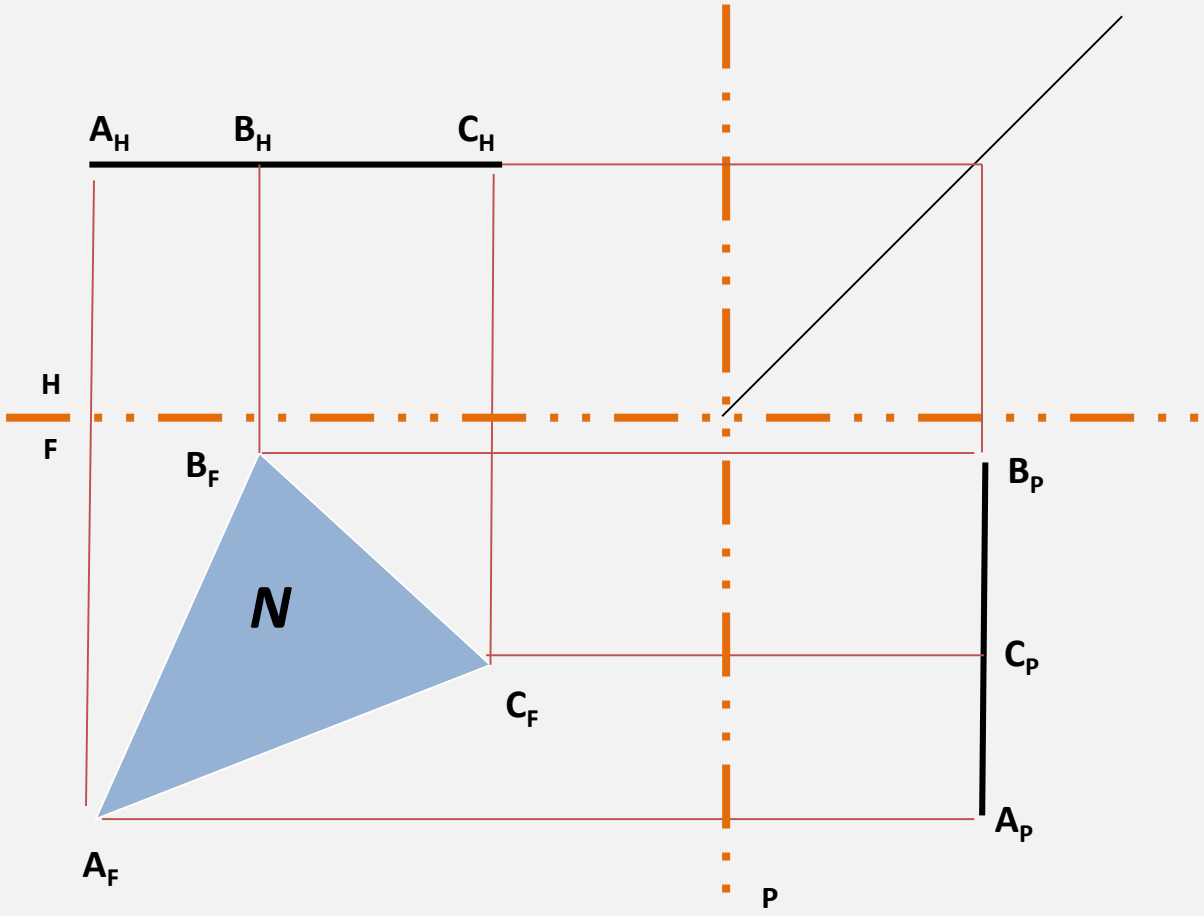

Line of strike
Dip direction
N
30°
Strike/dip symbol
Horizontal plane
Dip angle
30°

Classification of Planes



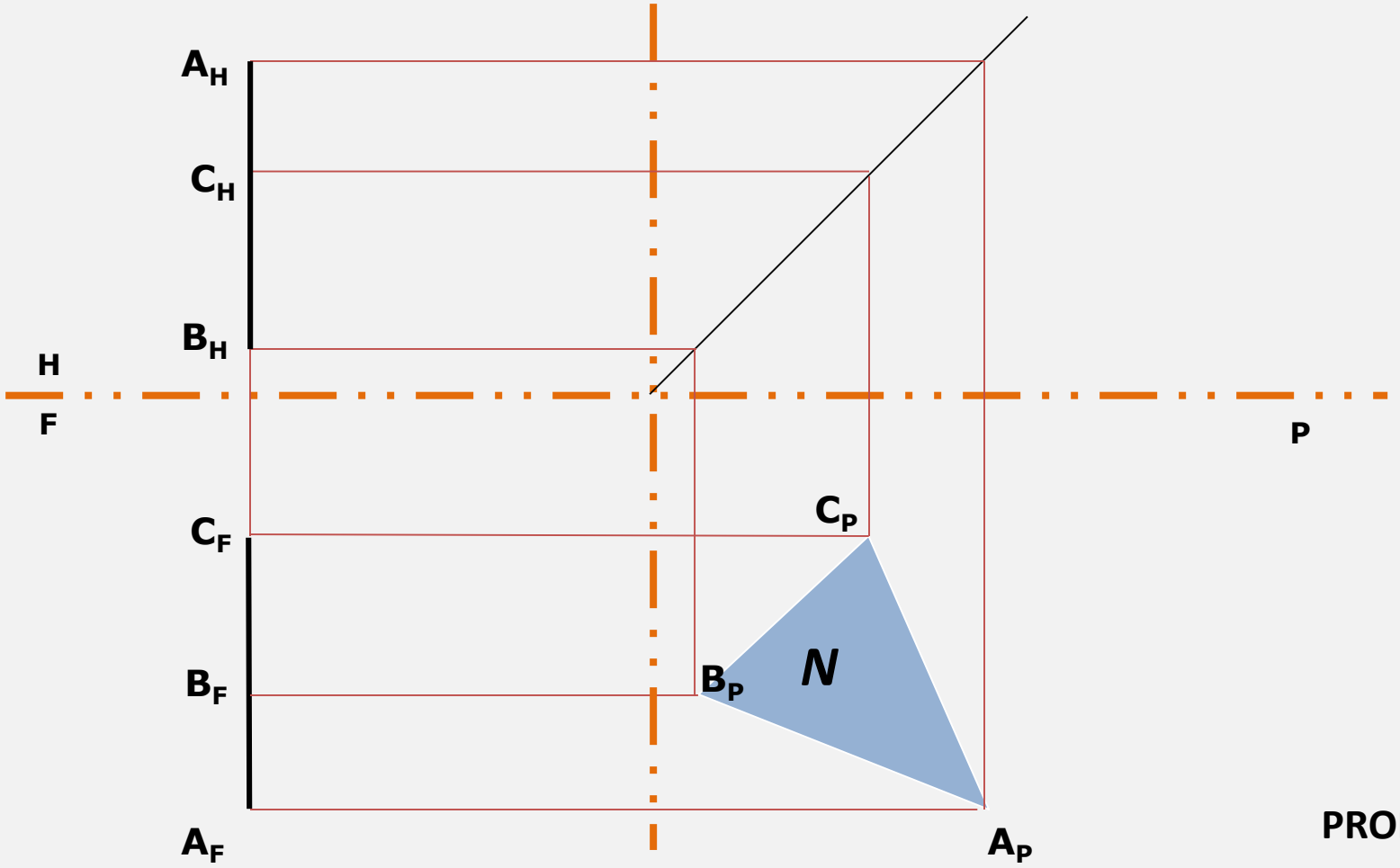
HORIZONTAL

Classification of Planes

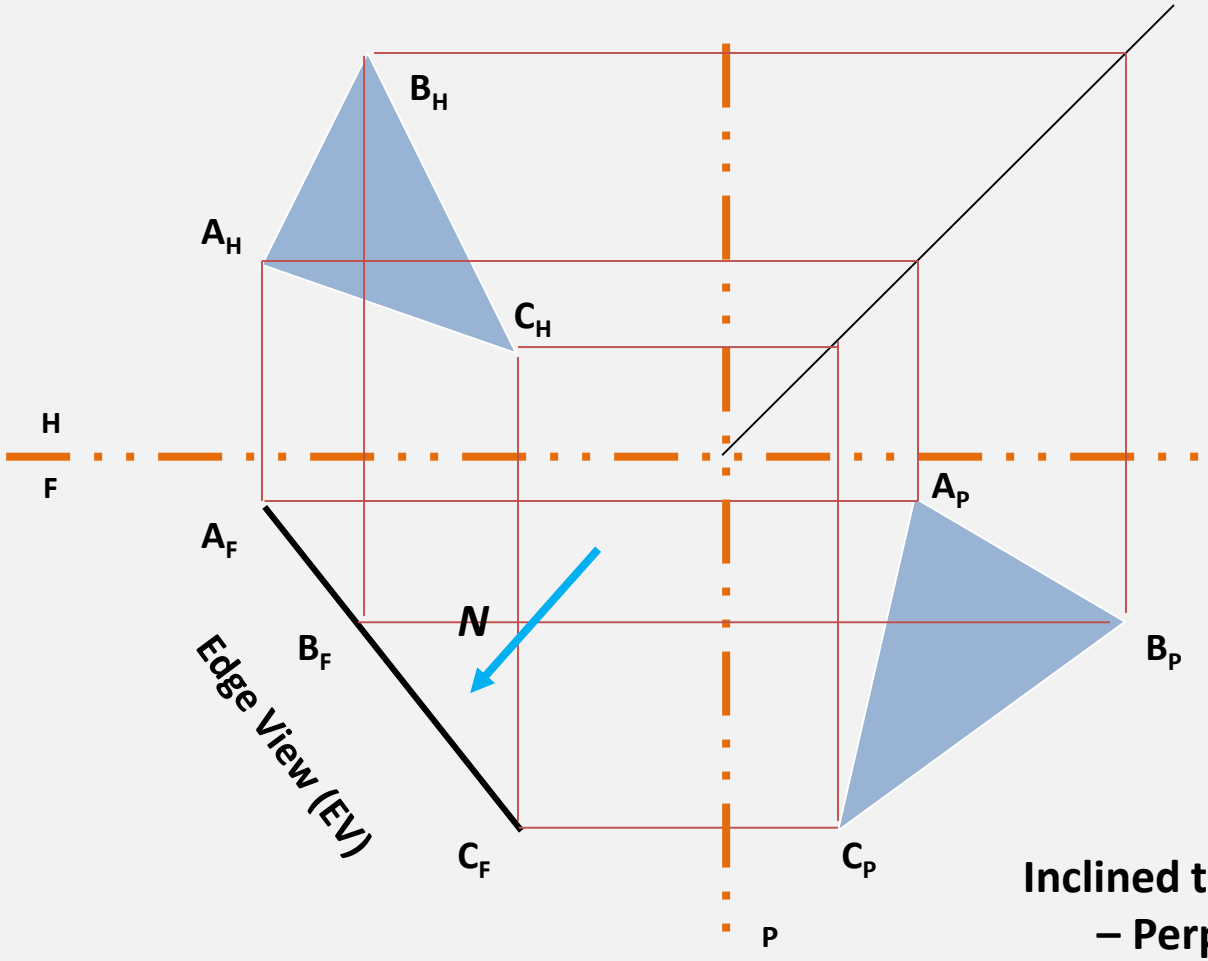


FRONTAL

Classification of Planes



Classification of Planes

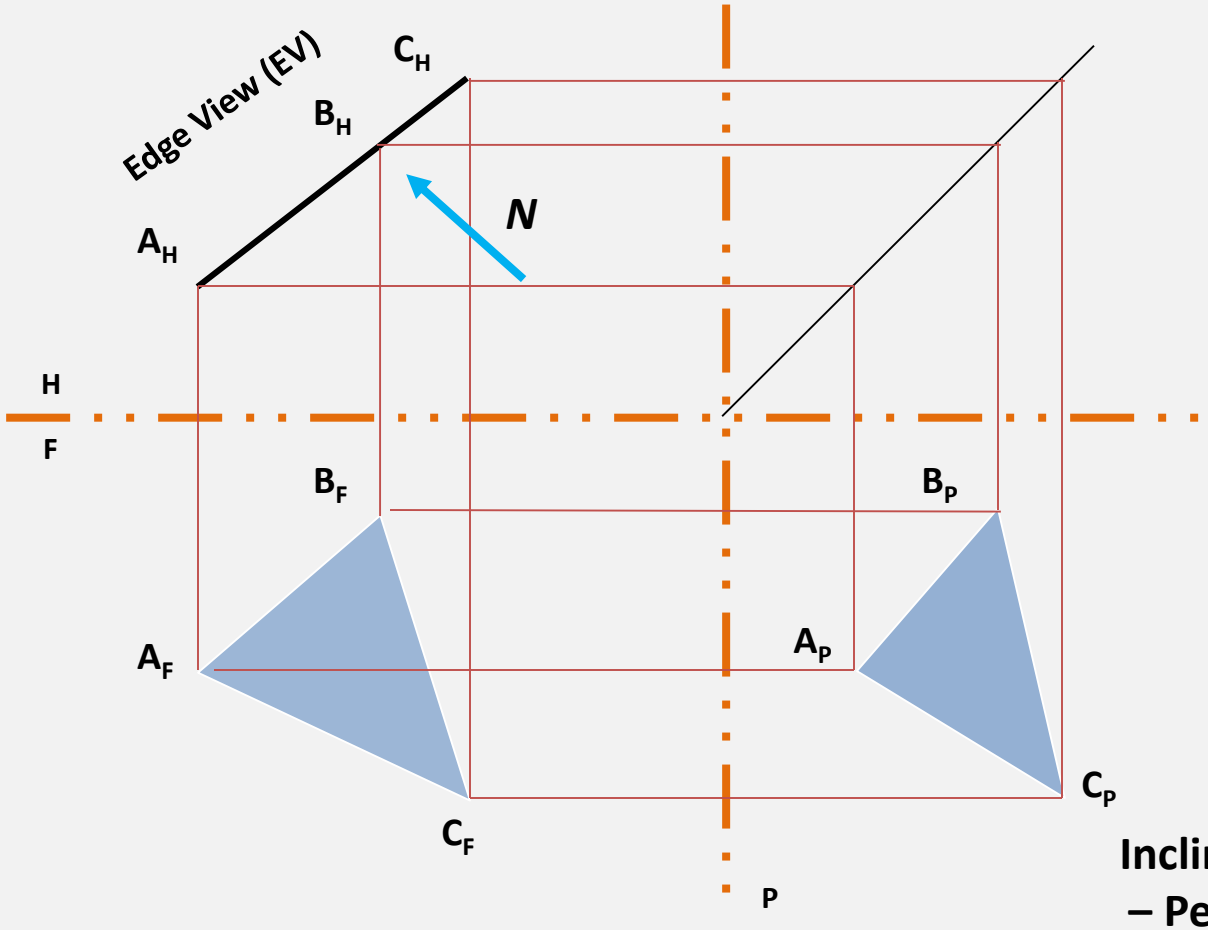


Draw the projection of such plane in H and P.

N Indicates the direction of normal on plane or the direction from where plane can be seen as Normal

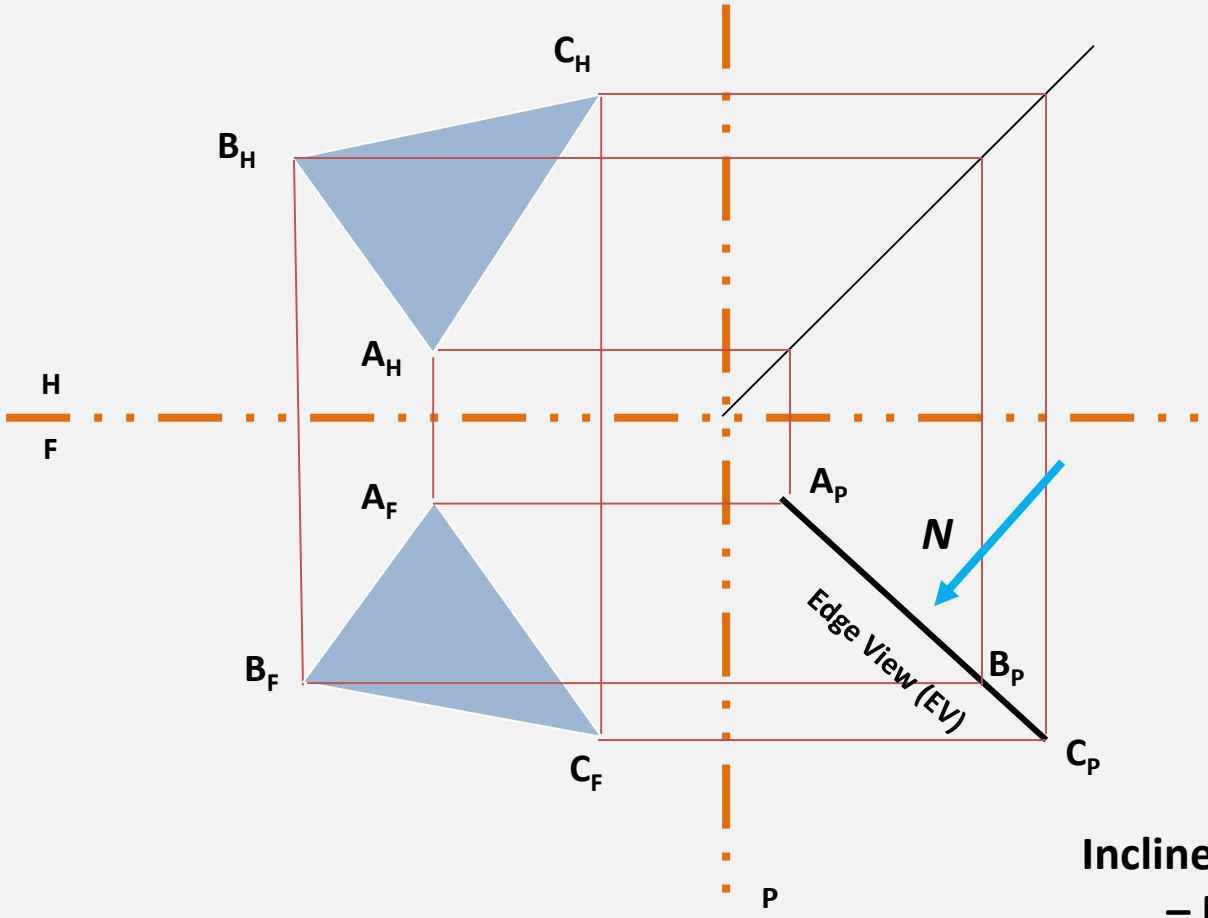
Inclined to Horizontal and Profile – Perpendicular to Frontal

Classification of Planes



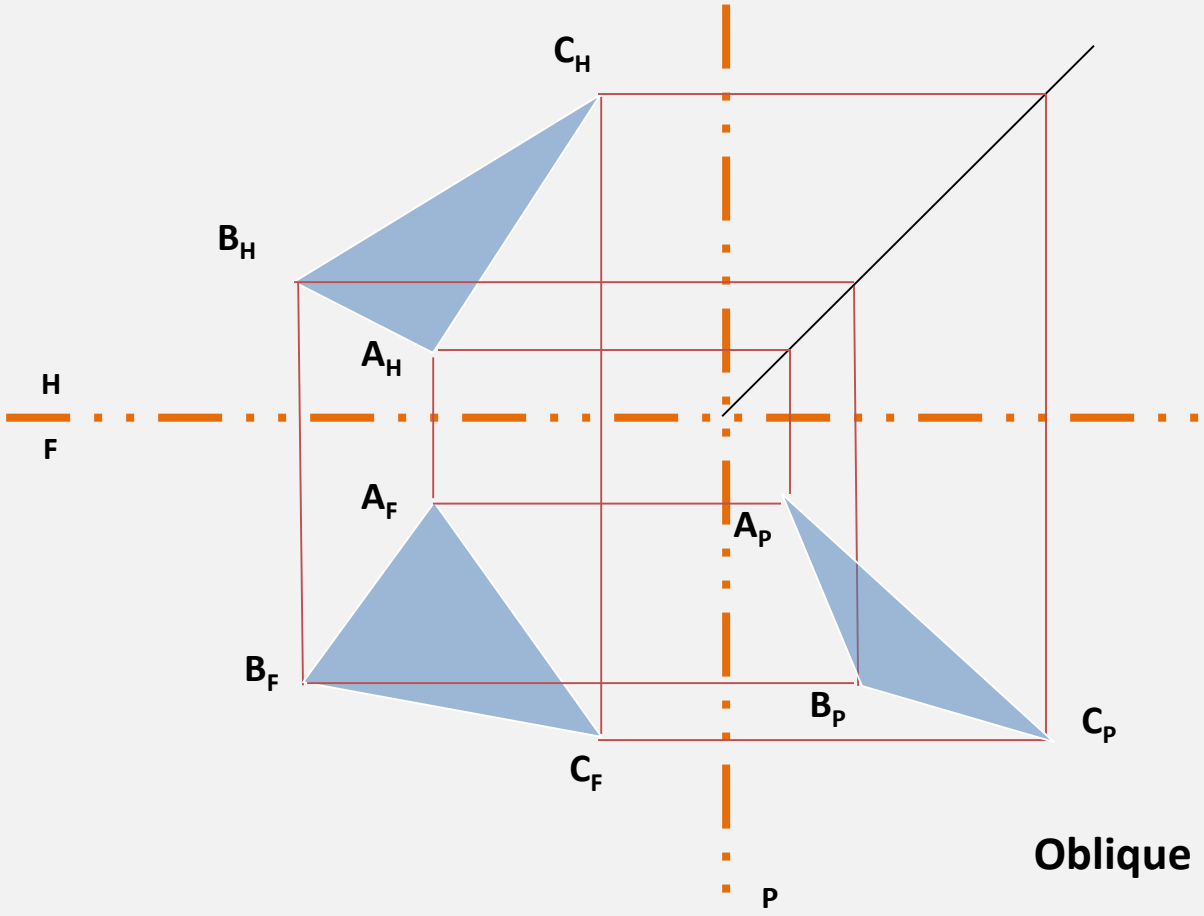
Inclined to Frontal and Profile – Perpendicular to Horizontal

Classification of Planes



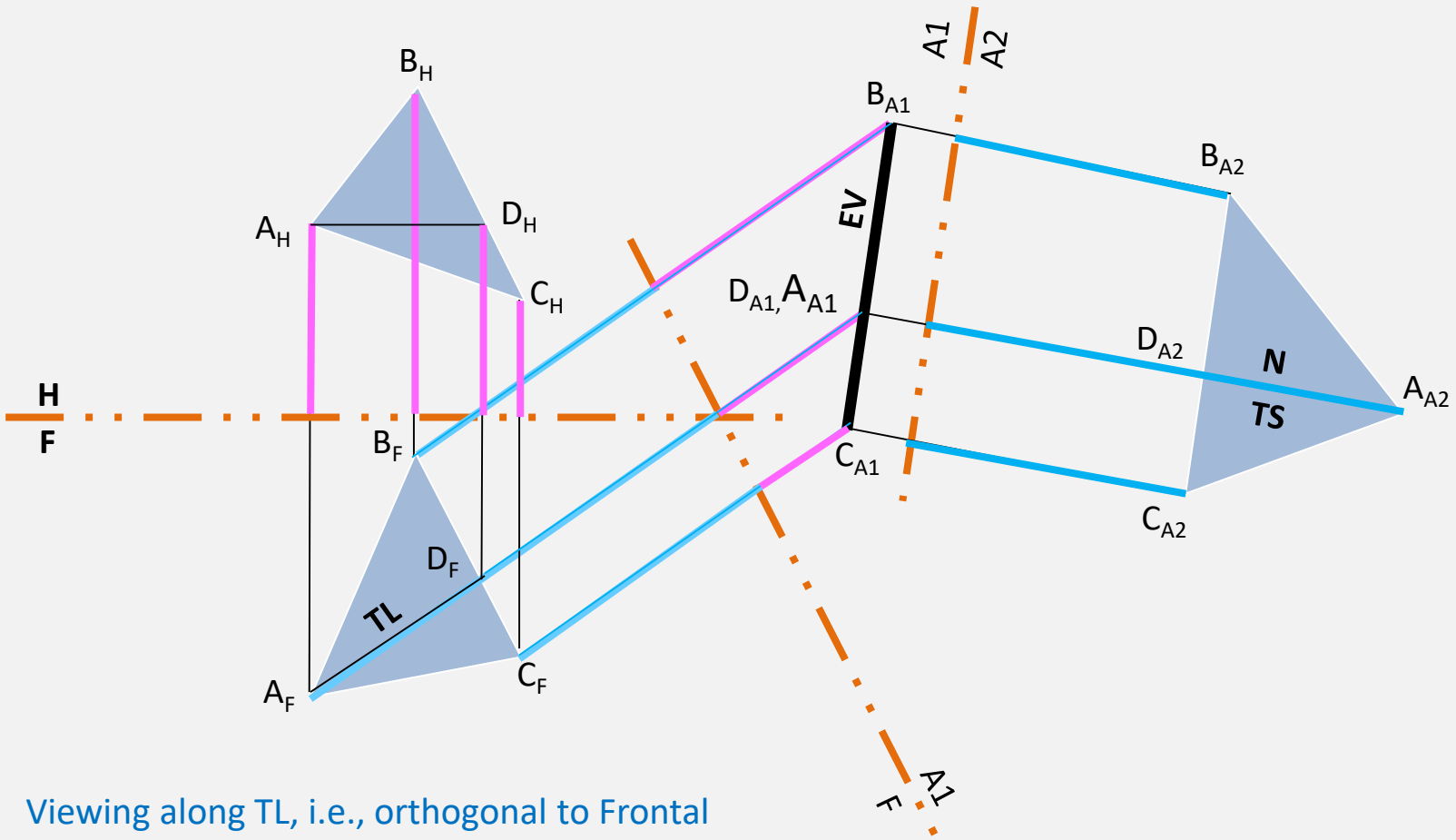
Inclined to Frontal and Horizontal – Perpendicular to Profile

Classification of Planes



Oblique Plane: Inclined to All Principal Planes

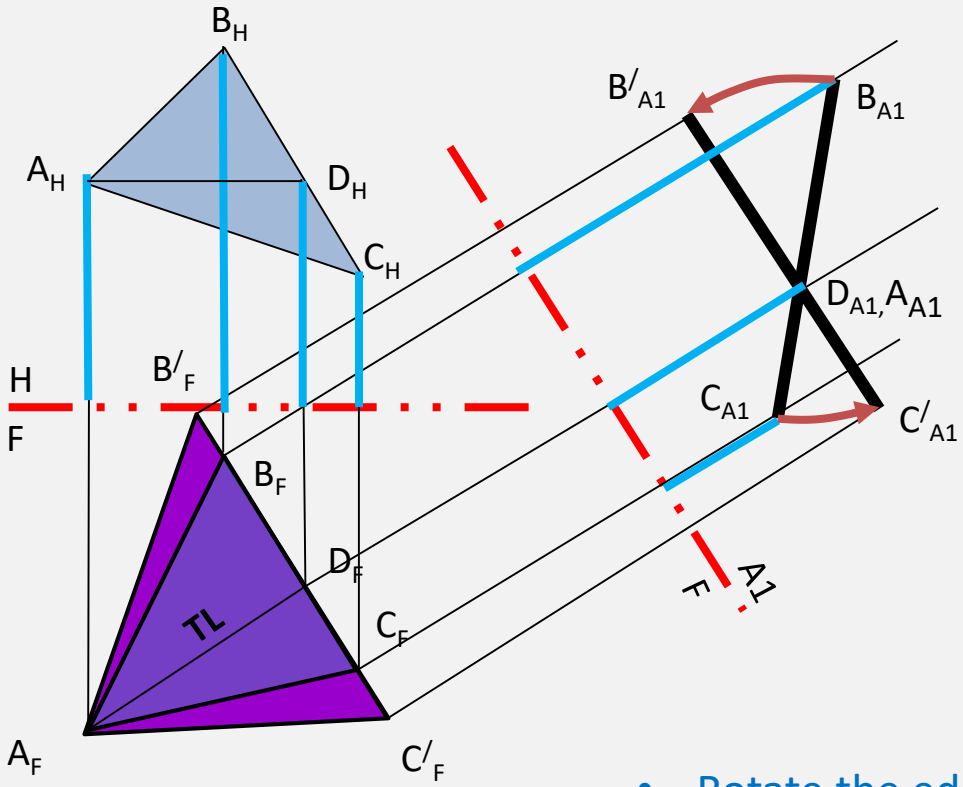
Normal View of an Oblique Plane



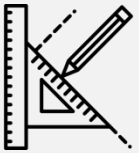
1. Viewing along TL, i.e., orthogonal to Frontal Plane is the Auxiliary Plane A1 where edge view of plane will be viewed
2. Viewing perpendicular to the plane on which edge view of the plane is coming will show True Shape.

- TL: True Length
- TS: True Shape

True size of plane by rotation method



- Rotate the edge view in A1 means the plane is being made parallel to Frontal Plane, so its projection on Frontal will be Normal view.



Thank you !