GRAPHICAL COMMUNICATION FORM 3

AIM: The study of Graphical Communication at Form 3 level is for students who have chosen this subject as one of their options, with the intention of sitting for the MATSEC exam at the end of Form 5. The course aims to develop the ability to communicate information and ideas using the appropriate graphical methods.

The **text book** used is: Graphical Communication 1 by Steward Bland

Neatness, cleanliness and orderly presentation should be encouraged during every lesson.

FIRST TERM

1. Introduction to equipment
   Pencils, (meaning of codes printed on pencil, importance of accuracy and neatness)
   Drawing boards, Tee-squares, Set-squares (care and proper use of), types of lines used, paper (type and sizes).
2. Paper layout and title blocks.
3. Dimensioning and conventions.
4. Plane geometry: Division of straight lines.
5. Procedure of drawing arcs joining straight lines.
6. Geometrical construction of angles using ruler and compasses only and combining 60° / 30°, 45° / 45° set squares.
7. Regular polygons constructions.
   Set square method and compass method for hexagons and octagons.
   Given distance across corner and across flat.
   Constructing regular polygons given one side or in a circle.
8. Pictorial representation:
   Introduction to Isometric, Cavalier and Cabinet Oblique, Planometric projection.
9. Introduction to first angle orthographic projection.

SECOND TERM

10. Isometric projection
    Simple shapes, angles and slopes, circles in Isometric Projection.
11. First angle orthographic projection.
    Blocks with straight lines and with sloping surfaces plus hidden lines. Blocks with holes. Harder examples introducing easy assembling, curved lines, holes and centre lines.
12. Developments
    The developments of the surface of common objects, prisms, cylinders, right cones and pyramids and their truncations.

THIRD TERM

13. The Ellipse:
    Construction using trammel method, Auxiliary circle method, Radial line method. Tangents and Normals to an ellipse.
14. Design logos, symbols, ideograms (prohibition, warning, mandatory, direction and special cases).
15. Line graphs, bar charts, pie charts, etc....
    Exploded views projected in line / assembled pictorial views.

Final revision of ALL topics for final examinations.

Assessment scheme:

When	Criteria	Marks
Academic Assesment	Class test	50
Behaviour Assessment		10
Mid-Year Exam	Exam	100
Academic Assesment	Home works, class works	50
Behaviour Assessment		10
Annual Exam	Exam	100
Academic Assesment	Home works, class works	50
Behaviour Assessment		10