Today Workshop

- ACTIVITY 1 "Review"
- ACTIVITY 2 "Drawing Terms and Basic 3D Axonometric Drawing"
- ACTIVITY 4 "The mechanics of an oral presentation"
- ACTIVITY 5 "CRA for Assignment 2"
- The Week 11 quiz on graphics

ACTIVITY 1

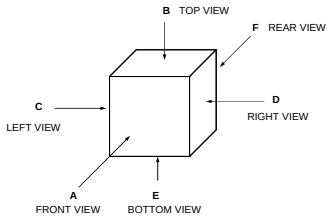
Some Key Points From Graphics Lecture:

1. Graphics is a universal language of communication amongst BEE professionals.
2. Graphics is an enormous aid to lateral thinking.
3. Typical views on a drawing are plan view, elevation view and section view.
4. The naming of a particular view is determined by which direction the object in the view is facing.
5. An axonometric drawing is a 3D representation of an object on paper with lines at 45 degrees across the page.
6. An axonometric drawing portrays a true plan, circles are true, rectangles are right-angled, etc.

ACTIVITY 2

- The purpose of this activity is to ensure that all students have an appreciation of basic graphics terms and presentations, and how to draw a 3D axonometric representation of an object.

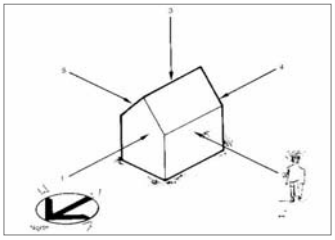
ACTIVITY 2 *(cont.)*



ACTIVITY 2 *(cont.)*

- View in direction A is designated: FRONT VIEW
- View in direction B is designated: TOP VIEW
- View in direction C is designated: LEFT SIDE
- View in direction D is designated: RIGHT SIDE
- View in direction E is designated: BOTTOM VIEW
- View in direction F is designated: REAR VIEW

ACTIVITY 2 *(cont.)*



ACTIVITY 2 *(cont.)*

Naming or numbering of views	
View 1 or Elevation 1	North Elevation
View 2 or Elevation 2	West Elevation
View 3 or Plan	Plan
View 4 or Elevation 3	South Elevation
View 5 or Elevation 4	East Elevation

ACTIVITY 2 *(cont.)*

Drawing Scale	
Survey Plan	1:2500
Site Plans	1:500, 1:200
Foundation on Footing Plan	1:100, 1:50, 1:20
Floor Plan	1:100, 1:50, 1:20
Elevations	1:100, 1:50, 1:20
Section	1:100, 1:50, 1:20
Detail Drawings	1:10, 1:5, Full Size

ACTIVITY 3

- The purpose of this activity is to help the students interpret professionally prepared drawings and to produce a 3D view of a real object (a building, in this case).
- Drawing Interpretation Questions (Group Discussion)

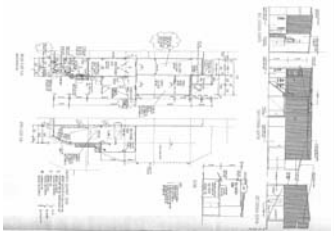
ACTIVITY 3 *(cont.)*

- 1. What is the total length of the exterior of the building?
- 2. What are the internal dimensions of the "order assembly room"?
- 3. What is the approximate distance between the floor and roof in the small goods cold room?
- 4. What direction on the plan views is North?
- 5. Draw a line on the ground floor plan where the section view is located.

ACTIVITY 3 *(cont.)*

- 6. What scale do you estimate these drawings are drawn to?
- 7. How many air-water fire extinguishers are shown for the building?
- 8. Find the locations of all the Minitronics CAT#SEL10 emergency lights.
- 9. What sort of anti corrosion treatment is to be given to all the steel in the building?

ACTIVITY 3 *(cont.)*



ACTIVITY 4

- The purpose of this activity is to help students with some details about their oral presentations in class room next week.
  - Show the students how the computer and projection equipment works in the room.

ACTIVITY 5

- CRA for Assignment 2

Quiz on graphics

- Q1) Complete this sentence. Drawings are best described as a means of _____ (1 mark)
- **Communication**
- Graphic advantage
- Vertical and lateral thinking
- Laxative of language

Quiz on graphics *(cont.)*

- Q2) Under the rules of architectural conventions, dimensioning shown on plans (see attached) is always assumed to be shown in _____ (1 mark)
- Dimensioning
- **millimetres**
- centimetres
- metres
- kilometres

Quiz on graphics *(cont.)*

- Q3) Complete this sentence. Dotted lines on a plan indicate _____ (1 mark)
- natural ground level
- section lines
- **hidden lines**
- elevation line

Quiz on graphics *(cont.)*

- Q4) An elevation is best described as _____? (1 mark)
- **The external view of an object or structure (eg house) viewed from the front, back, left or right.**
- a three-dimensional (3D) view.
- A Bird's eye view relationships between rooms, spaces and other physical features at one level of a structure.
- A cutaway view of the interior

Quiz on graphics *(cont.)*

- Q5) A section is best described as _____? (1 mark)
- The external view of an object or structure (eg house) viewed from the front, back, left or right.
- a three-dimensional (3D) view.
- A Bird's eye view relationships between rooms, spaces and other physical features at one level of a structure.
- **A cutaway view of the interior**

Quiz on graphics *(cont.)*

- Q6) What can a bubble diagram be used for? (1 mark)
- building a bubble pipe
- checking the accuracy of a surveying level (dumpy level)
- **preliminary layout for a design**
- footing holes for stumps

Quiz on graphics *(cont.)*

- Q7) Complete this sentence. View 4 of Figure 14 attached is the _____ elevation (1 mark)
- Figure 14 - North South East West Elevation
- North
- **South**
- East
- West

Quiz on graphics *(cont.)*

- Q8) There are three diagrams in the figure attached and these show an opening in a wall drawn at a scale of 1:10, 1:20 and 1:50. Which scale do you think has the LEAST detail? ? (1 mark)
- Figure 5 - windows at various scales
- 1:10
- 1:20
- **1:50**

Quiz on graphics *(cont.)*

- Q9) Complete this sentence. View 3 on Figure 14 attached is best described as: (1 mark)
- Figure 14 - North South East West Elevation
- North elevation
- South elevation
- East elevation
- West elevation
- **Plan view**

Quiz on graphics *(cont.)*

- Q10) Which best describes what it means to scale? (1 mark)
- The component is actually the size it is drawn at.
- To weight the component being drawn
- It means each component is always drawn at a scale of 1:1000
- **Each part of a drawing corresponds to a certain dimension in reality**

Quiz on graphics *(cont.)*

- Q11) Referring to Figure 12 attached and architectural conventions for section lines complete this sentence. A section is always drawn.....? (1 mark)
- Figure 12 - Conventions for Cross Referencing
- **Showing the detail in the direction of the arrows**
- Showing the detail in the opposite direction of the arrows

Quiz on graphics *(cont.)*

- Q12) Referring to Figure 1 attached, which is best described as the plan view? (1 mark)
- Figure 1 - Describe a View
- A
- **B**
- C
- D

Quiz on graphics *(cont.)*

- Q13) Which is the plan view in Fig 6.10? (1 mark)
- Fig 6-10 Rounded Corners and Fillets
- **Left hand diagram**
- Right hand side diagram

Quiz on graphics *(cont.)*

- Q14) Which diagram is best described as an elevation? (1 mark)
- Figure 9
- Top right hand corner diagram
- **Bottom left hand corner diagram**

Quiz on graphics *(cont.)*

- Q15) Figure 2 is a scale rule of 1:100. How much is each division in mm ? Hint: Refer to the Week 9 Graphics lecture
- video (1 mark)
- Figure 2 - Scale Rule1mm
- 10mm
- **100mm**
- 1000mm

Quiz on graphics *(cont.)*

- Q16) Which scale has the MOST detail? (1 mark)
- **1:10**
- 1:20
- 1:50
- 1:100

Quiz on graphics *(cont.)*

- Q17) Figure 1 - 3D view attached is drawn at 45 degrees. Which best describes a diagram that is drawn at 45 degrees?
- (1 mark)
- Figure 1 - 3d view
- Isometric
- **Axonometric**
- Orthographic
- Symmetric

Quiz on graphics *(cont.)*

- Q18) Which best describes this 3 dimensional view? (1 mark)
- 3 D view
- **Isometric**
- Axonometric
- Plan
- Section

Quiz on graphics *(cont.)*

- Q19) Referring to the scale rule in Figure 2 attached. How long is the measurement of 1400mm in metres ("m") ? (1 mark)
- Figure 2 - Scale Rule
- 1400m
- 140m
- 14m
- **1.4m**

Quiz on graphics *(cont.)*

- Q20) My artifact was drawn on my plans as 1m long. How long is this in millimetres (mm) (1 mark)
- 1mm
- 10mm
- 100mm
- **1000mm**

Quiz on graphics *(cont.)*

- Q21) Which best describes why guide lines are drawn for lettering on plans? (1 mark)
- Figure 3 - Lettering Guides
- **To ensure lettering and numbering on plans is legible and neat.**
- To make drawings more time consuming
- To ensure the client considers drawings value for money
- None of the above