

University Institute of Engineering

Academic Unit-1

Bachelor of Engineering (CSE, IT, CSE-IBM)

Computer Graphics using CAD Lab. (20MEP114)

Experiment No. 2

Prepared By: Paras Khullar

Study of all the status bar commands, limits, units, zoom, pan commands and toolbars

DISCOVER . **LEARN** . EMPOWER

Study of all the status bar commands, limits, units, zoom, pan commands and toolbars

Course Outcome

CO Number	Title After completion of the course the students may be able to:	Level
CO1	Sketch the different conventions and representations of engineering graphics on AutoCAD software.	Remember & Understand
CO2	Explain the use of engineering drawing, compare and predict the geometrical details of common engineering objects.	Understand
CO3	Classify, examine and draw the dimensioned figures expressing information about the shape and size of physical objects	Understand
CO4	Identify and express the geometrical features of a product on AutoCAD software.	Understand
CO5	Draw orthographic views of computer components.	Understand

Will be covered in this lecture

COURSE OBJECTIVES

Students may be able to

- Understand the basic drawing aids used in AutoCAD
- Draw figures by using draw, modify and dimension toolbars

Status Toolbar

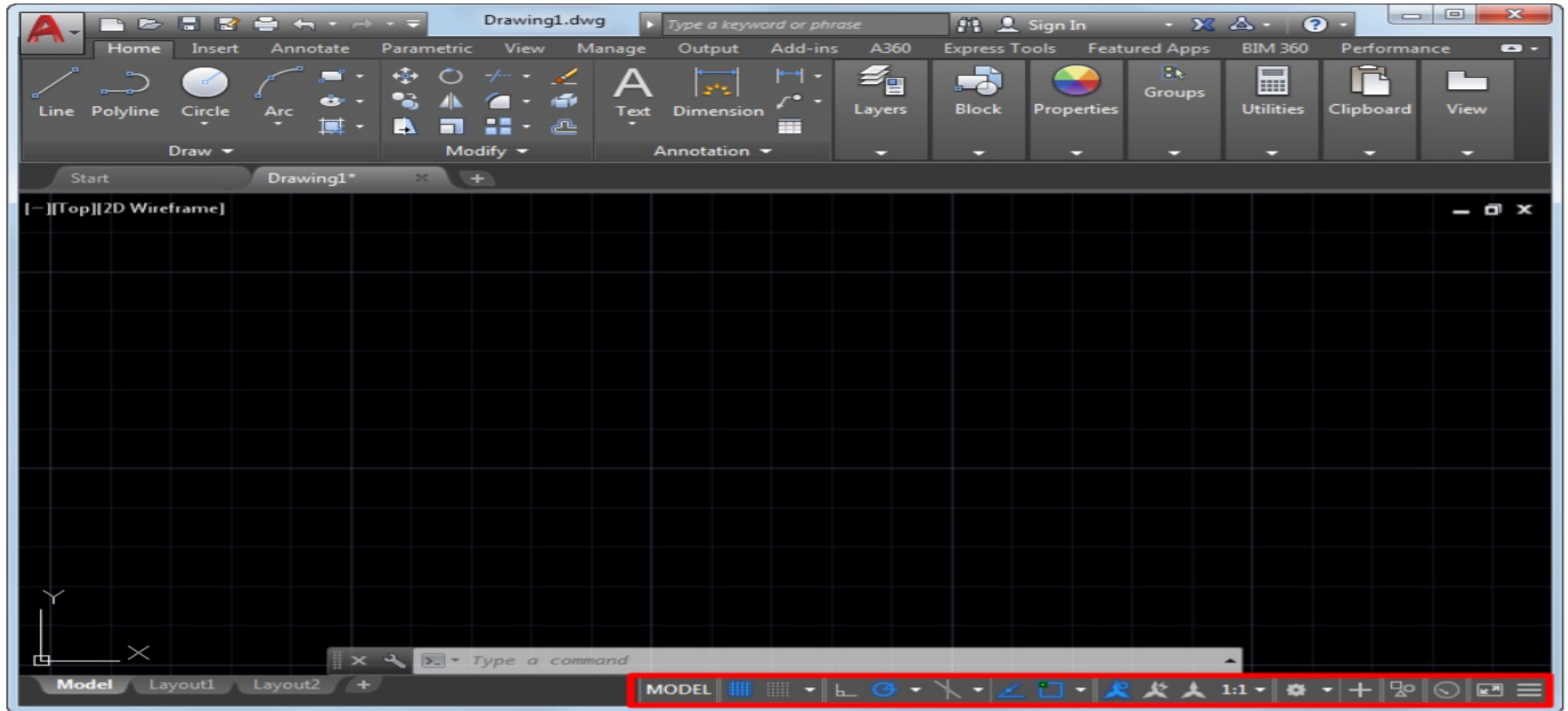


Fig. 2.1: Status Bar

Image Source: Self-Made

Limits

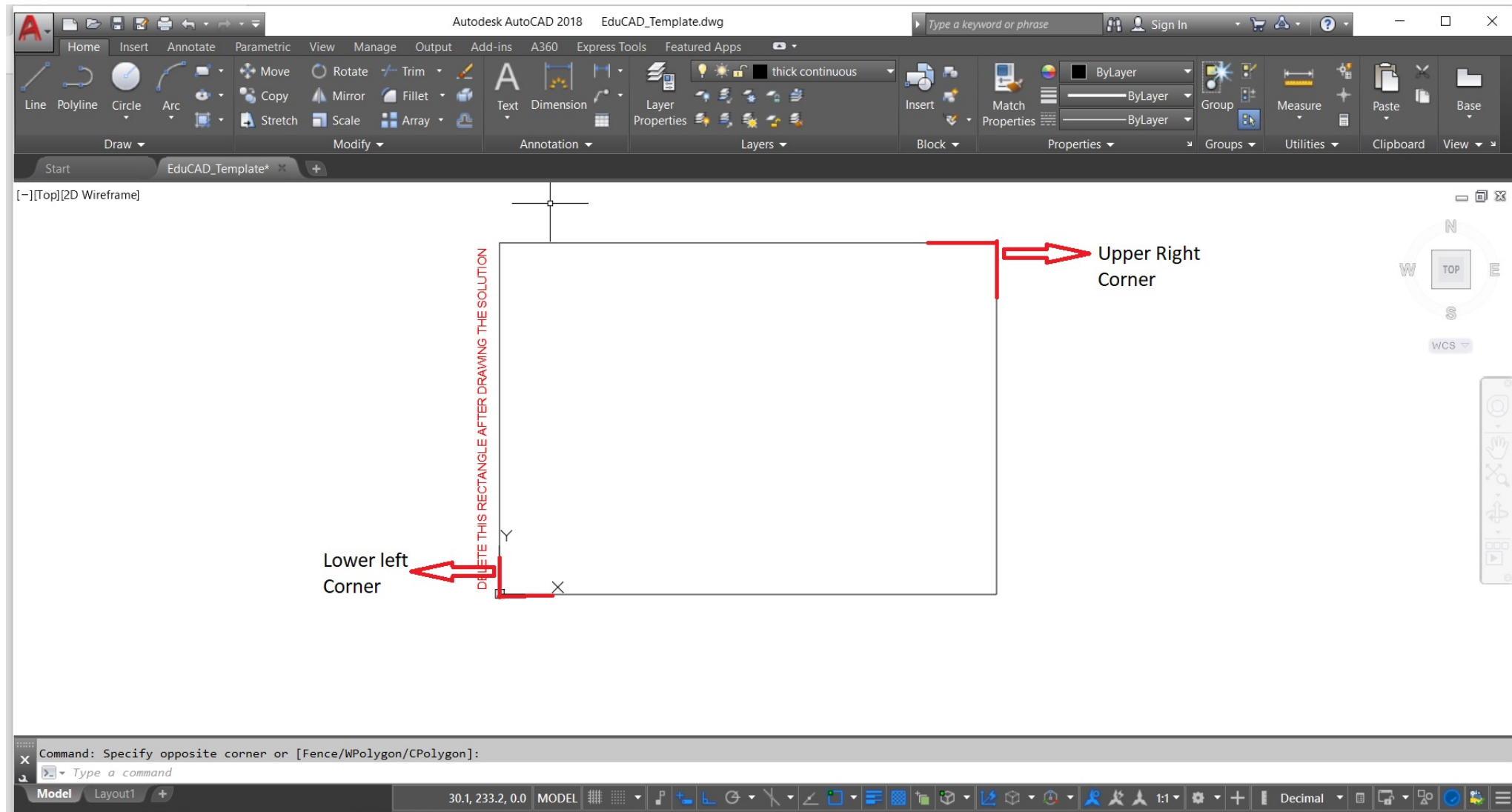


Fig. 2.2: Limit Option

Units of Dimensions

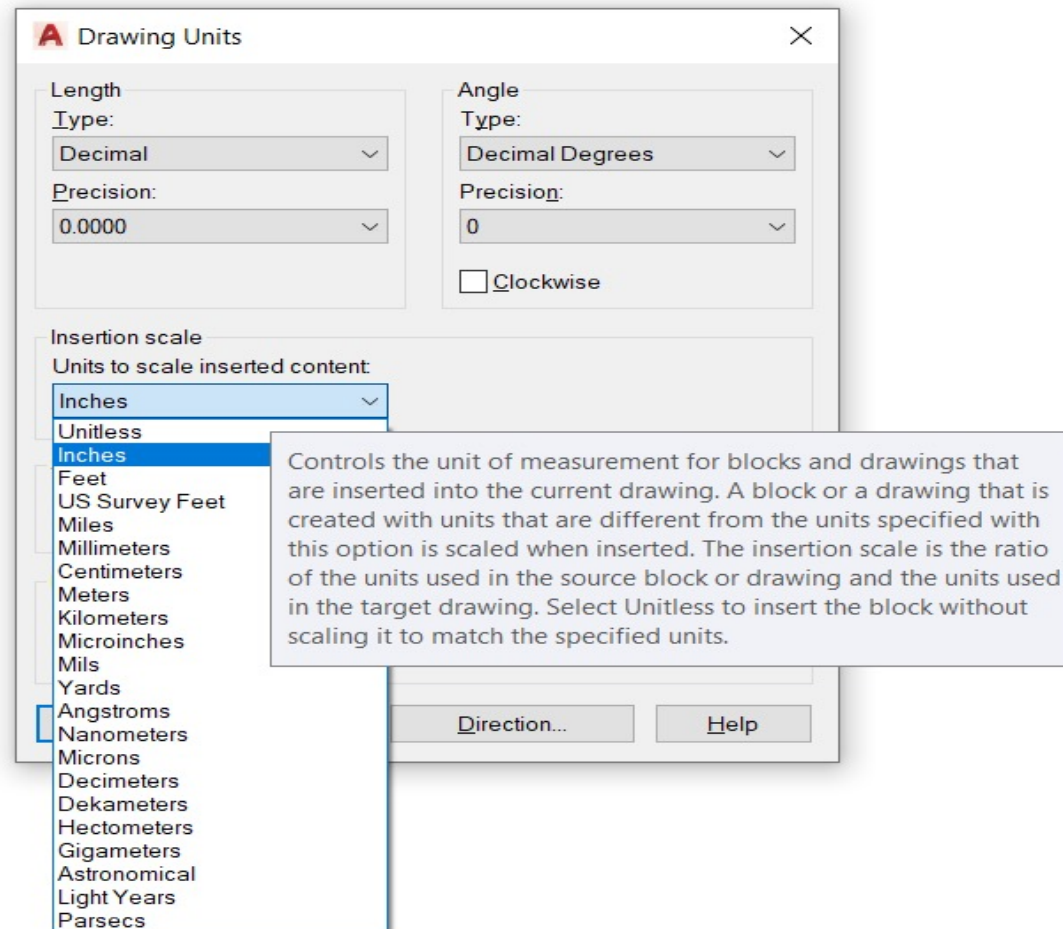


Fig. 2.3: Unit Options

Zoom and Pan Command

ZOOM and PAN TOOLS

The **ZOOM** command allows users to view a drawing up close or far away. Zooming does not actually change the scale of entities in the drawing (this is accomplished with the **SCALE** command), just their magnification in the graphics window.

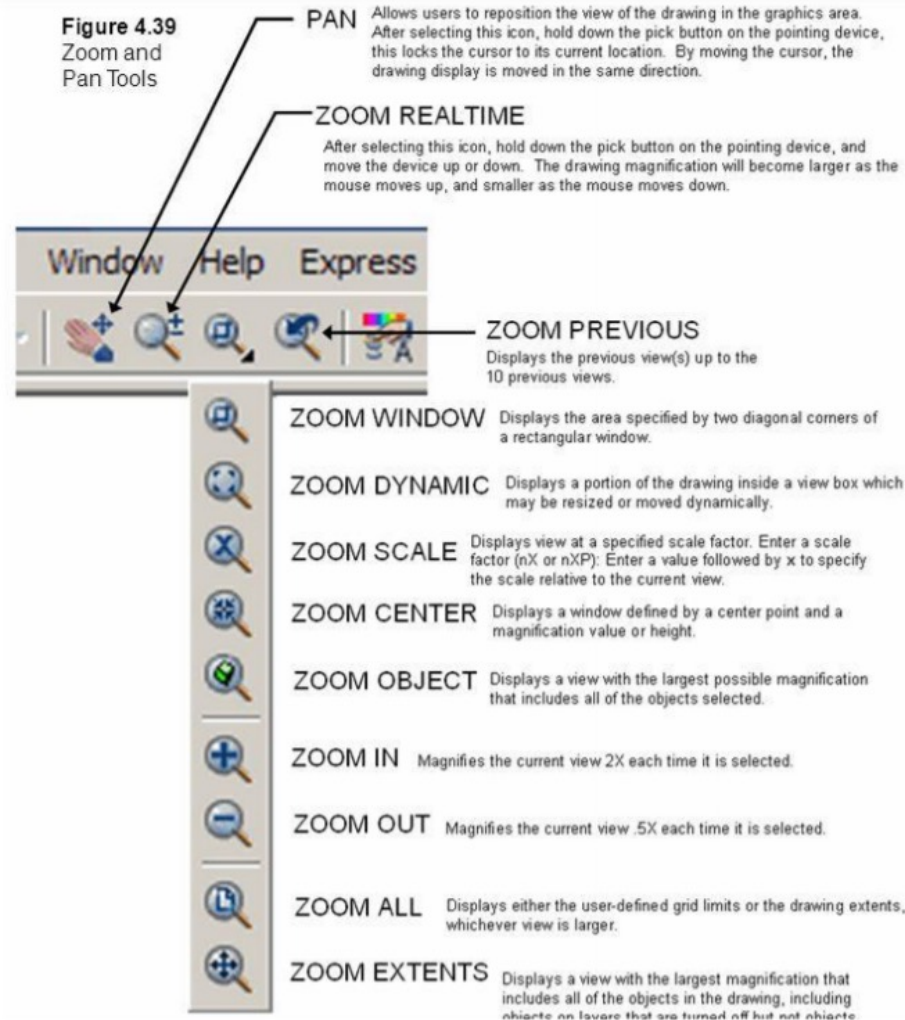
The **PAN** command allows users to reposition the view of the drawing in the graphics window. Panning does not change the location of entities in the drawing (this is accomplished with the **MOVE** command), just the viewer's point of view.

The **PAN** and **ZOOM** commands are located on AutoCAD's **Standard** toolbar.

For a detailed explanation of these important viewing tools see **Figure 4.39**.

Note: AutoCAD's **ZOOM** icons are also located on the **Zoom** toolbar.

Figure 4.39
Zoom and
Pan Tools



Draw Toolbar

- Draw toolbar contains all the commands which are used to draw something on AutoCAD
- The basic draw commands used are line, circle, arc, ellipse, polygon, polyline, etc.

Draw Toolbar

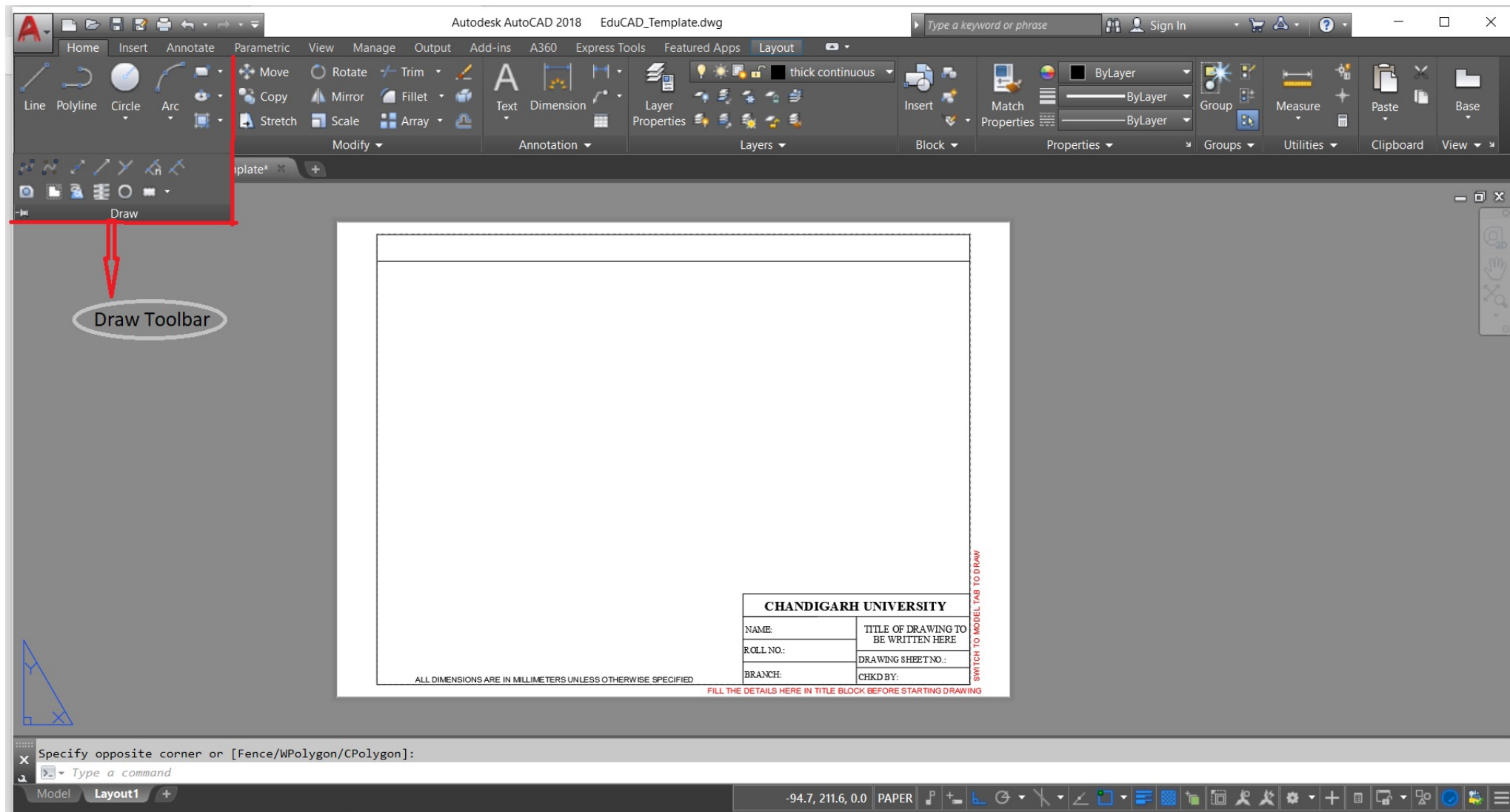


Image Source: Self-Made

Fig. 2.5: Draw Toolbar

Modify Toolbar

- Modify toolbar contains all the commands which are used to modify some figure on AutoCAD
- If something is already drawn, we need to modify it, these commands are used
- The basic modify commands are move, copy, rotate, mirror, fillet, chamfer, etc.

Modify Toolbar

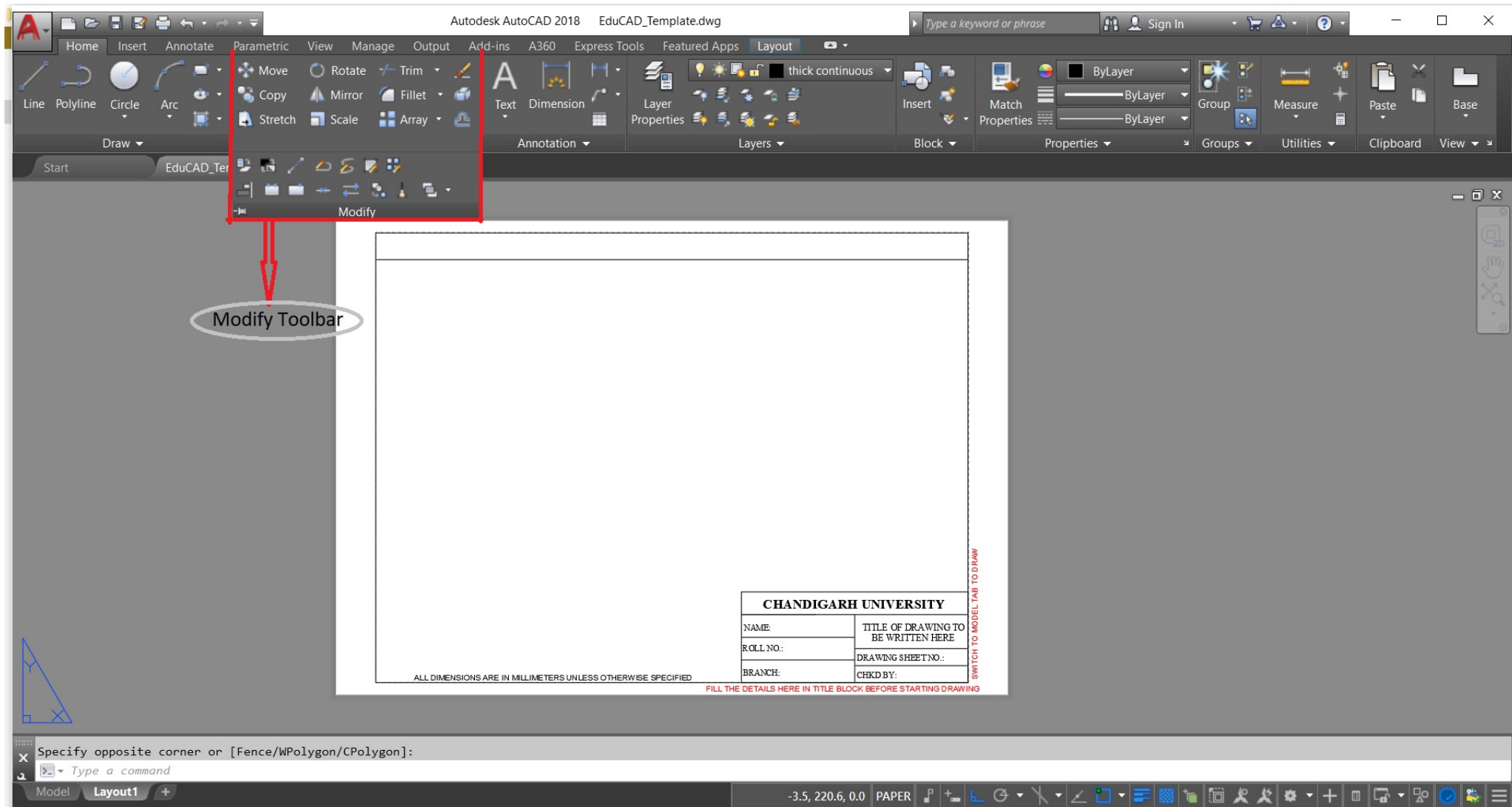
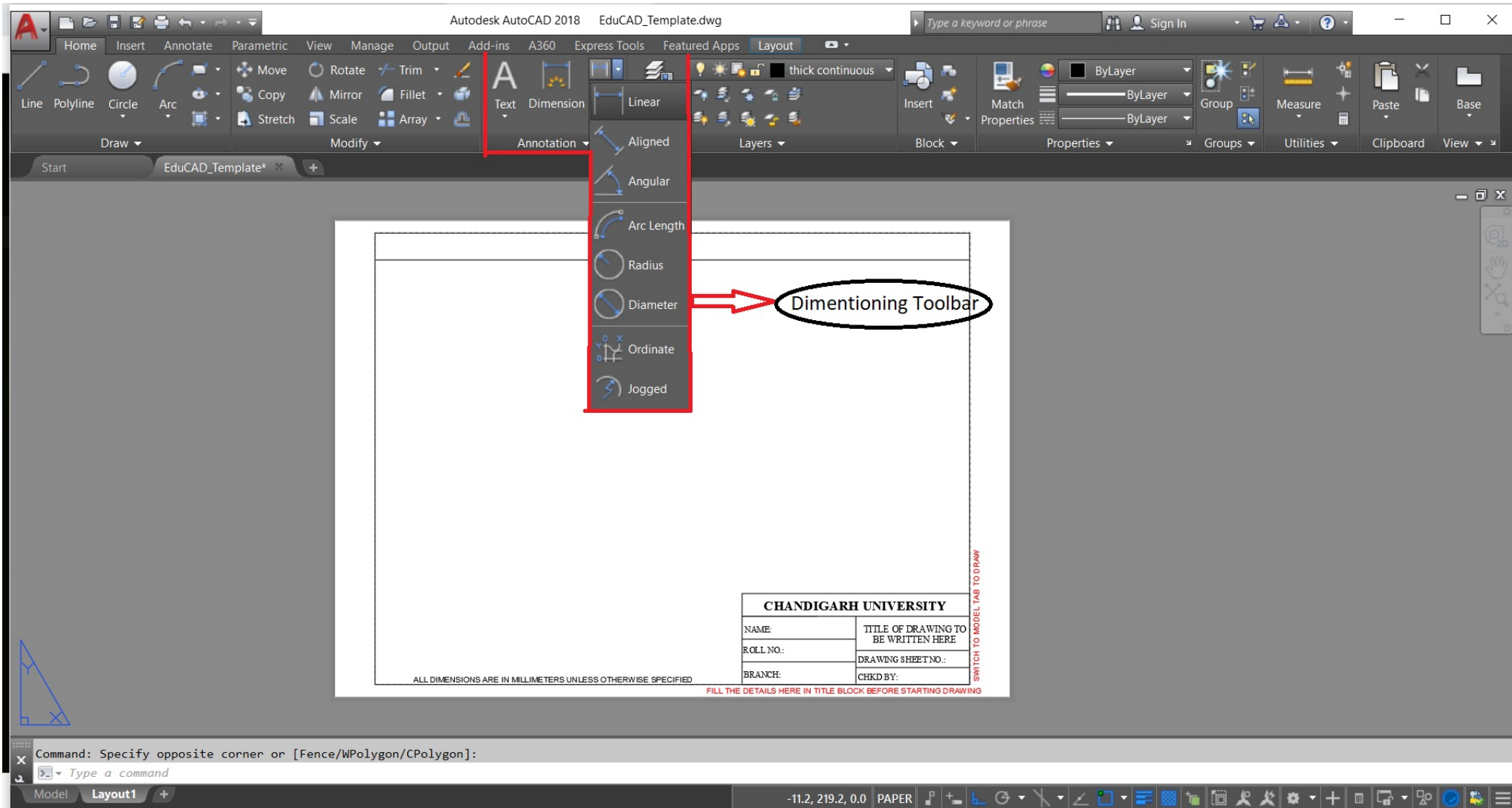


Image Source: Self-Made

Fig. 2.6: Modify Toolbar

Dimensioning Toolbar



Assessment Pattern

Sr. No.	Type of Assessment Task	Weightage of actual conduct	Frequency of task	Final Weightage in Internal Assessment (Prorated Marks)	Remarks
1.	Practical Worksheet (In Journal Category) and Class-room Learning	20 marks for each experiment	8-10 experiments	40 marks	Depending upon no. of experiments
2.	Mid-Term Test	20 marks	1 per semester	12 marks	At-least after the completion of 5 experiments.
3.	Discussion Forum/Short Digital Assignment/Journal to submit design/Portfolio	4 marks for each task	1 per semester	4 marks	
4.	Presentation*	-----		Non Graded: Engagement Task	
5.	Attendance and BB Engagement Score	-----		4 marks	End Semester

Table 2.1: Assessment Pattern

Applications

- Status toolbar to draw the drawing precisely.
- Limits to justify the size of the drawing sheet.
- Units to change the parameters of dimensions with respect to the drawing.
- Zoom and Pan Command to view the object more conveniently.

Summary

In this PPT, we have learnt:

- Status Toolbar Applications
- Use of Limits
- Importance of Units and Dimensions
- Zoom and Pan command

Recommended Books

- Rhodes R.S, Cook L.B; Basic Engineering Drawing, Pitman Publishers,
- Rana and Shah; Engineering Drawing, Pearson Education India Publishers.
- Jolhe D.A; Engineering Drawing: With an Introduction to AutoCAD, Tata McGraw Hill
- Gill P.S; Engineering Drawing, S.K. Kataria and Sons Publications.
- Dhawan R. K; Engineering Drawing, S. Chand and Sons Publishers.

References & Image Links

- <https://www.slideshare.net/shameem.mist/engineering-drawing>
- <https://knowledge.autodesk.com/support/autocad-lt/learn-explore/caas/CloudHelp/cloudhelp/2019/ENU/AutoCAD-LT/files/GUID-F64F8008-E1C0-49CC-A268-A6B8C6E9B566-htm.html>
- https://wiki.librecad.org/images/thumb/8/8d/Selection_026.png/400px-Selection_026.png
- https://wiki.librecad.org/images/thumb/a/a0/Selection_028.png/450px-Selection_028.png



THANK YOU

For queries
Email: paras.me@cumail.in

