

CADD ET0085

WEEK 4 – LESSON INSTRUCTIONS ON AUTOCAD 2020 & FUSION 360 (3D SOFTWARE)

Objectives:

1. To comprehend basic 2D-AutoCAD 2020 and draw efficiently Part 4.
2. Self-Directed Learning (SDL) on Fusion 360 (3d Software for Assignment 1 & 2 in Week 5 & 6)

Topics:

1. **Introduction** to Dimension
2. **Frequently used Dimension Commands:** Linear, Baseline, Continue, Aligned, Angular, Leader, Centre Mark, Radius, Diameter & Oblique (To be used in Isometric drawings)
3. **Dimension Scale:** Appropriate dimension scaled according to object & drawing paper size
4. **Block & Insert:** Objects created are saved under one entity (**Block**) and re-use it the same or other drawings (**Insert**) efficiently
5. **Exercise 1A, 2 & 3:** Drawing Practice to set & insert Dimensions
6. **Download Fusion 360 (3D software) in your Notebook. Read important information provided in BB Announcement & attempt Assignment 1 & 2**

Before continuing Lesson 4 on Setting Dimensions, Basic 8 settings, Creating the 6 frequently used toolbars, must be done as shown below and utilises knowledge on all the DRAW & MODIFY, TEXT and LAYERS commands learnt in Week 1, 2 & 3:

Basic Settings in AutoCAD 2020 (8 Settings)

1. Read BB→ Learning Resources→ LAB:
 - i. [UNIT 1 \(Read completely & Practice & set all the 8 settings\):](#)
 - [Page 44 to 58](#)
 - It's important to complete all 8 settings before commencing on any AutoCAD drawings as it helps to complete drawing efficiently

Creating Frequently used Toolbars

1. Read BB→ Learning Resources→ LAB:
 - i. [UNIT 1A \(Read completely. Practice & create Frequently used toolbars using AutoCAD 2020\)](#) especially:
 - [Page 19 to 26](#) to learn how to insert frequently used toolbars efficiently. Complete this insertion of frequently toolbars in your Notebook. The frequently used toolbars will appear subsequently even when you logout and then login again later.
 - [Page 27](#) to learn how to save & open files
 - [Page 40 to 43](#) to learn keyboard shortcuts
 - All these methods helps to draw efficiently

2D AutoCAD DRAW Commands

1. Read BB→ → Learning Resources→ Learning Resources→ LAB:
 - i. [UNIT 2 \(Read Practice Topic on DRAW Commands\)](#) especially:
 - ii. [Page 59 to 83 to learn & practice the DRAW commands learnt in Week 1 & 2.](#)
 - iii. [Videos on Draw commands](#) are available as shown in the link [Introduction to AutoCAD 2020](#) at the beginning of Week 1 HBL lesson. Google or find in utube the AutoCAD 2020 DRAW commands for more information.

2D AutoCAD Modify Commands

1. Read BB→ Learning Resources→ LAB:
 - i. [UNIT 3 \(Read & Practice Topic on MODIFY Commands\)](#) especially:
 - ii. [Page 84 to 104 to learn & practice MODIFY commands learnt in Week 1 & 2.](#)
 - i. [Videos on Modify commands](#) are available as shown in the link [Introduction to AutoCAD 2020](#) at the beginning of Week 1 HBL lesson. Google or find in utube the AutoCAD 2020 MODIFY commands for more information.

Introduction to Dynamic Text

1. Read BB→ Learning Resources→ LAB:
 - ii. [UNIT 1 \(Read & Practice Setting of Text Style on Page 50\)](#)
 - iii. [UNIT 2 \(Read & Practice Multiline Text and Dynamic Text commands on Page 81 & 82\)](#)
 - iv. [Videos on Text commands](#) are available as shown in the link [Introduction to AutoCAD 2020](#) at the beginning of Week 1 HBL lesson. [Google or find in utube](#) the AutoCAD 2020 MULTILINE TEXT and DYNAMIC TEXT commands for more information.

Introduction & Creation of Layers

1. Read BB→ Learning Resources→ LAB:
 - i. [UNIT 1 \(Read & Practice Setting of Layer between Page 55 & 58\)](#)
 - ii. [Videos on Layer setting & commands](#) are available as shown in the link [Introduction to AutoCAD 2020](#) at the beginning of Week 1 HBL lesson. Google or find in utube the AutoCAD 2020 LAYER setting & commands for more information.

Introduction to Dimension

1. Read BB→ Learning Resources→ LAB:
 - i. [UNIT 1 \(Read and Practice Dimension Style setting & Dimension Scale between Page 51 & 53\)](#)
 - ii. [UNIT 4 \(Read and learn Dimension relevant features between Page 105 to 110\)](#)
 - iii. [Videos on Layer setting & commands](#) are available as shown in the link [Introduction to AutoCAD 2020](#) at the beginning of Week 1 HBL lesson. Google or find in utube the AutoCAD 2020 Dimension setting & commands for more information.

Block & Insert Command

2. Read BB→ Learning Resources→ LAB:
 - i. [UNIT 2](#) (Read and Practice [Wblock & Insert between Page 74 & 77](#))
 - ii. [Videos on Layer setting & commands](#) are available as shown in the link [Introduction to AutoCAD 2020](#) at the beginning of Week 1 HBL lesson. Google or find in utube the AutoCAD 2020 Dimension setting & commands for more information.

Exercise 4: Drawing Practice

2. Read BB→ Learning Resources→ LAB:
 - i. [UNIT 6](#) (Exercises for Practice using AutoCAD) especially:
 - [Page 133, 135 & 137](#) (Exercise 1A, 2 & 3): Practice & Learn how to draw & Insert DIMENSIONS in Exercise 1A, 2 & 3. Practice inserting Text, Layers & Dimensions in Exercise 1A, 2 & 3 as well.
 - [Save in File Name: ADMISSION NO-FULL NAME-EXERCISE 4](#) (All capital letters)
[E.g. P2012345-TAN AH KOW-EXERCISE 1A,](#)
[P2012345-TAN AH KOW-EXERCISE 2,](#)
[P2012345-TAN AH KOW-EXERCISE 3](#) respectively and individually saved file including all necessary 8 settings, insertion of frequently used toolbars, completed drawings with Dimensions and Text.
No submission require but practice to make perfect and draw proficiently.
 - This Exercise 4 helps to re-enforced your comprehension of AutoCAD 2020 introduction, setting and application of Basic Draw, Modify, Text & Dimension and techniques to insert commands.

Download Fusion 360 (3D software) in your Notebook

- i. [Read important information provided in BB Announcement in Week 4 & attempt Assignment 1 & 2](#)

END OF WEEK 4 LESSON