AutoCAD Tutorials

Jim Shahan (jcshahan@iastate.edu) - 2/4/2014

- This is a set of Tutorials that cover Basic use of the AutoCAD Software
- The material presented here is my notes on the related subject.
 - It is subject to change,
 - It is not intended to be fully polished material
- I put this material together to provide a logical presentation of the basic features of AutoCAD. Typically presented to students that fit into two categories
 - They have never used AutoCAD, they have taken an introduction to a parametric modeling software (usually Solidworks or Autodesk Inventor)
 - o They have taken an introductory AutoCAD course, typically several year earlier
- This material helps focus the students on what I think is the important fundamentals related to.
 - o Geometric Construction of 2D drawings: Single View and Multi-view
 - Organization of AutoCAD drawings, including: Blocks, Arrays, Layers, Styles, and Properties

The Lessons:

Lesson 1 - Geometric Construction

Concepts: Circle, Line, Object Snap, Fillet, trim, Quick Dimensions

- Outlines: Geometric Construction, Quick Printing
- Chronicle (Video)

Lesson 2 - Quick Printing

Concepts: Extents, Fit, Center, Monochrome

- Outlines: Quick Printing
- <u>Chronicle</u> (Video)

<u>Lesson 3 - Geometric Construction and Quick Printing</u>

Concepts: Layers, Linetypes (LTSCALE), Blocks, Arrays, Layers, Properties

- Outline: <u>Drawing Organization</u>
- Chronicle (Video)

Lesson 4 - Multi-view Drawings

Concepts: Construction Lines, Offset, Manage Properties, Hatch, Lineweight

- Outline: Multi-view construction
- Chronicles (Video): Part 1, Part 2, Part 3

Lesson 5 – Auxiliary Views

Concepts: Polar settings / tracking, Ellipse

- Outline: <u>Auxiliary View Construction</u>
- Chronicles (Video): Part 1, Part 2

Lesson 6 - Dimension Styles

Concepts: Dimension: Linear, Continued, Radius, Diameter, Center. Dim Style: Dim Scale, Center marks, Precision. Text: Overide, symbols

- Outlines: <u>Dimension Styles</u>
- Chronicles (Video): Part 1, Part 2

Lesson 7 – Printing Layouts

Concepts: Model / Layout, Model / Paper Space, Viewports / Scales, Border / Titleblock, Page Setup Manager

- Outlines: Printing layouts
- Chronicles (Video): Part 1, Part 2, Another Example

<u>Lesson 8 – Standard Dimensioning Practice</u>

Concepts: Standard Practices – Center marks and lines, Dimensioning Standard Features, Multileader / Multileader Style. Symbols.

- Outlines: <u>Standard Dimensioning Practice</u>
- Chronicles (Video): Centerlines. Part 1, Part 2, Part 3