

Engr 210 AA – Engineering Graphics  
Lab #10 – Layouts and Dimensions

**Instructions:**

Review the rules on dimensions and notes (Sections 9.1-9.4). For Part 1, you will create template files you can use as a starting point when creating new drawings in subsequent labs, one in inches and another in millimeters. For Part 2, download the zip file “Lab8-files” from the class website. This zip file has three AutoCAD drawing files: Lab10-a, Lab10-b, and Lab10-c, which you will modify by adding appropriate dimensions, following rules of dimensioning.

**Part 1: Creating Templates for title blocks**

Templates are files that contain frequently used settings such as layers, colors, linetypes as well as title blocks that can be used and reused for different drawings. In this part of the lab, you will create two title blocks that you can use in subsequent exercises: one for drawings in inches, and another for drawings in millimeters.

Title Block: English Units

**Setting up layers**

1. Start by opening a new file.
2. In the *Select Template* manager, **left-mouse-click** on the *triangular* button to the right of the *Open* button, and select *Open with no Template – Imperial*.
3. Set *GRID* and *SNAP* intervals to 0.5 for both X and Y.
4. In the *Status Bar* area, switch the *SNAP*, *GRID*, and *MODEL* on.
5. Create **layers** with the following settings:

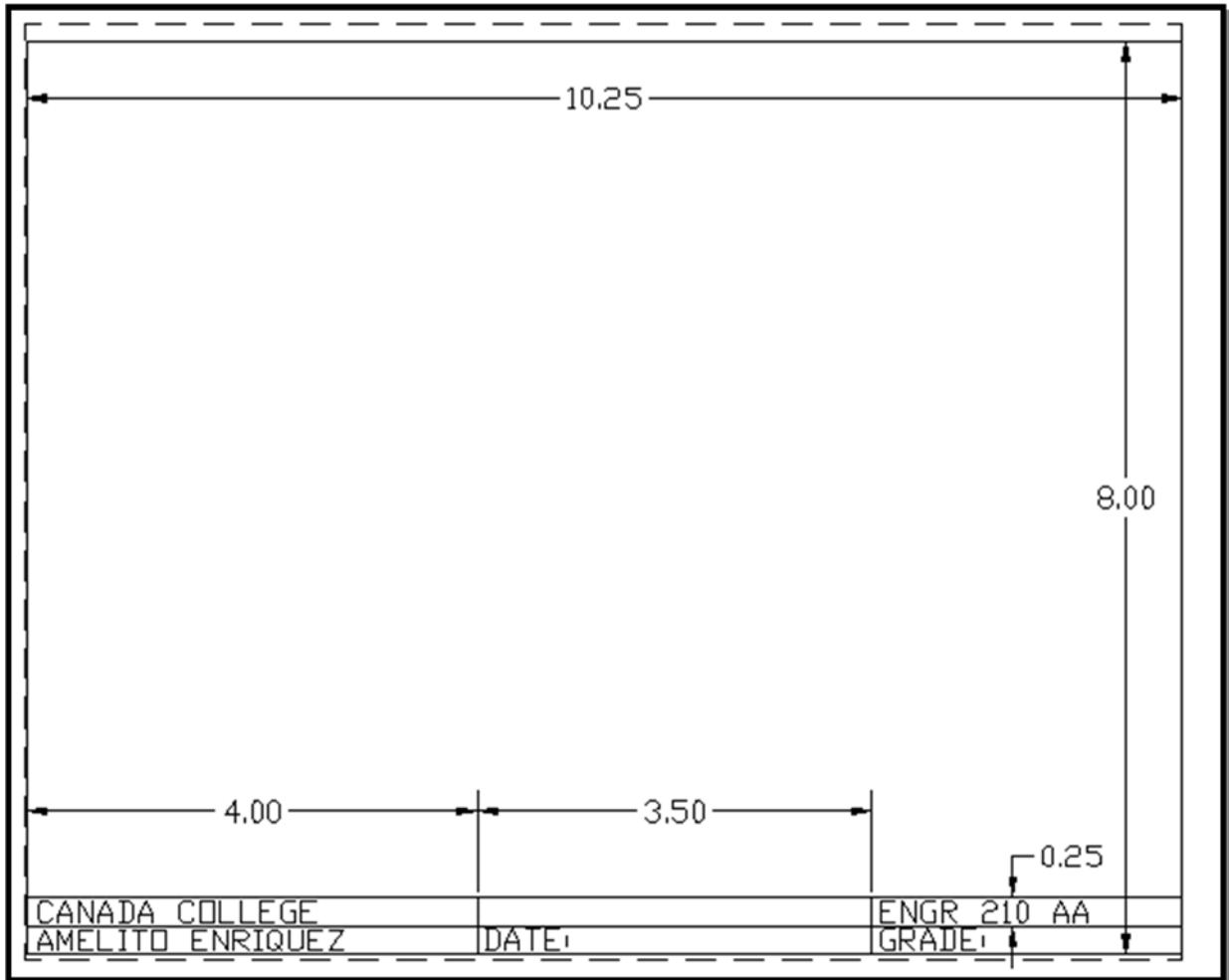
<i>Layer</i>	<i>Color</i>	<i>LineType</i>	<i>LineWeight</i>
Construction	Gray (number 8)	Continuous	Default
Object Lines	Blue	Continuous	0.6 mm
Hidden Lines	Cyan	Hidden	0.3 mm
Center Lines	Red	Center	Default
Section Lines	White	Continuous	Default
Cutting Plane	White	Phantom	0.6 mm
Title Block	White	Continuous	0.6 mm

6. Click on the **OK** button to exit the dialog box.

**Creating the title blocks in a layout**

1. Pick the **Layout1** tab to switch to the layout mode.
2. In the *Page Setup* dialog box, select the appropriate plotter, and confirm that the *Paper Size* is set to 8.5” by 11”, and the drawing orientation is *Landscape*. Then exit the dialog box.

3. Select *Title Block* as the current layer.
4. Create the Title Block as shown.



5. Pick the **Model** tab to switch back to *model space*.
6. In the *Object Properties* toolbar area, select the **Layer Control** box, and set *Construction Lines* as the current layer.
7. Save the drawing as a *template file (.dwt)* with **Titleblock\_A** as the file name.

**Create another template file** starting from a **new file in millimeters**, with the overall size of 260 by 200 for the title block. Save this file as a *template file (.dwt)* with **Titleblock\_B** as the file name.

The two template files can be used as a starting point for any new drawings you create. **Titleblock\_A** will be used for drawings in inches, and **Titleblock\_B** for drawings in mm.

## Part 2. Adding Dimensions and Text

Add dimensions and text to drawing files 8-a, 8-b, and 8-c.