Three-Dimensional Modeling, IET-265 Name: _____
Spring 2012, Week 9, Tuesday,
GD&T Drawings Day and date: _____
40 points total

GD&T Lens Cap Drawing (20pts)

- Modified Housing Drawing from this week, B sized template, printed full sized to scale and gray scale, typical precision (2pts). Add the following GD&T items:
- Datum A on the axis that defines the center of the Base feature (1pt)
- Datum B on the back face (1pt)
- Datum C on the front face (1pt)
- Put a Bilateral Tolerance on the dimension defining the depth of the part (1.725") of no more than 0.010 and no less than 0.020 inches (2pts)
- Add a Feature Control Frame on the front surface with a leader stating flatness of 0.005 inches (2pts)
- Put a Limit tolerance on the Front Cut feature diameter dimension of no less than the basic dimension but can be 0.050 inches larger (2pts)
- Add a Feature Control Frame on this dimension stating cylindricity of 0.005 inches (2pts)
- Put a Symmetric tolerance on the Revolve Thin feature dimension (0.25") that defines the back exterior cut on the outer surface with a deviation of 0.010 inches (2pts)
- Add a Feature Control Frame on the interior edge of the previous defined cut stating parallelism of 0.020 inches at the MMC referencing Datums B and C (3pts)
- Add a Feature Control Frame on the back edge of the part stating perpendicularity of 0.010 inches at the MMC referencing Datum A (2pts)

Assembly Model Part Drawing (20 pts)

- For your Assembly Model part use the drawing created in Week 7 or a new one from your Final Project and add the following GD&T items of your choice (the items below must make sense)
- B sized template, printed full sized to scale and gray scale (2pts)
- At least 3 dimensions with at least 3 different types of tolerances (6pts)
- At least 3 datums of your choice (3pts)
- At least 3 feature control frames of your choice (6pts), the feature control frame has to be completely filled out with material conditions referring to the appropriate datum
- Cannot all be the same as the *Housing Drawing*, choose at least 2 unique ones of your choice (3pts)