

# MAE 3195, Credit Sheet 13

## Modeling Spur Gears with Involute Teeth

Work through the spur gears tutorial. When you are finished with the tutorial, save copy of the original file to “\*\*\*-spur\_gear”. Load the file “\*\*\*-spur\_gear”. Modify the parameters/dimensions of the part and add new features to model the spur gear identified as “YD-16” on the Boston Gear catalog page (12 diametral pitch, 20 degree pressure angle, 16 teeth).

Produce a detailed drawing of your gear that labels the dimensions of the gear and its teeth. The drawing should have three views:

1. Front view of the gear (appears circular),
2. Side view of gear (appears rectangular), and
3. Detailed view of the involute gear teeth.

Add dimensions to the detailed view of the teeth; you probably want to refer to your undergraduate textbook on machine design to refresh your memory. Print a copy of the drawing, and be prepared to hand it in on the due date.