

MEMS 1029-2197

Homework 1 - Due May 13, 4:00 p.m.

Reading: Shigley Chapter 7 - Shafts and Shaft Components

Exercise: Any one of 3-70, 3-71, 3-72, or 3-73

Submit your assignment in a neatly-formatted technical report, with solutions derived algorithmically.

Handwritten solutions are not acceptable.

In other words, the code that you use in preparing your solution should accept modest variations on the input parameters (such as changes to dimensions, forces, or torques). This code should be readily available for inspection - not buried in a spreadsheet.

I strongly suggest using this assignment as an opportunity to learn the Jupyter Notebook format. It's a very powerful tool that combines formatted text, equations, graphics, and code in a single unified document.

It is freely available via the Anaconda Python distribution, and in cloud services such as Google Colaboratory, Microsoft Azure, and Cocalc (among others).

Please upload a .pdf of your solution (not the raw code) directly to Gradescope.