## Where we have been: uni-axial loading

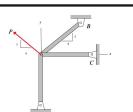
stress

load/deformation

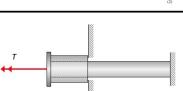
Rod



Truss



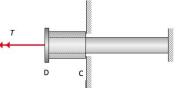
Thermal loading



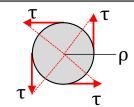
$$\sigma = \frac{F}{L}$$

$$e = \frac{FL}{EA}$$

Shaft



$$\tau = \frac{T\rho}{I_P}$$



$$\Delta \phi = \frac{TL}{GI_P}$$

Where we are going: bending beams

