

Name _____

PHYS319 Optics
Pre-lab Michelson Interferometry

1. What is interferometry?
2. How did Thomas Young, discoverer of a method to measure interference, generate a coherent beam before the invention of lasers?
3. What is a beam splitter?
4. A micrometer will be used to move the movable mirror. What is the resolution of a micrometer in meters and nanometers? What is the uncertainty of micrometer in meters and nanometers assuming an uncertainty of $\frac{1}{2}$ of readability? This uncertainty is what you will use if you counted only one fringe (which is why you make multiple measurements, i.e., counts).
5. What is “backlash”? Google “backlash” or “backlash + thread” or “machine backlash”