

Name _____

Sec _____

Prelab-PHYS222
Diffraction and Interference (Spring 20121 version)

1. What is the objective of this lab?

2. What is diffraction?

3. What is interference?

Go to lab website and click on [Diffraction & Interference items](#)

This link will show you how to measure diffraction pattern

4. After viewing website above answer the following question by clicking on

[Data to answer pre-lab question 5](#) next to pre-lab link.

If you are in Monday sections **use slit A**
If you are in Tuesday sections **use slit B**
If you are in Wednesday sections **use slit C**

Using the ruler in the photo determine the width (W) of the pattern and distance to screen to calculate the wavelength of the laser. Slit width is given. **Use eq. 29-1 in procedure.** Show all work.

5. Using the website "[How to measure diffraction patterns](#)" answer the following.

Are the spacings between double slit patterns **that you mark in this experiment evenly spaced or irregularly spaced.** Look at how they are marked and measured. An examination of the photo should quickly provide the correct answer. **Explain your answer.**