Observatory Report

OBJECTIVES

After completing this lab exercise the student will be able to

- State the name and location of the observatory visited.
- Identify the optical configuration, Newtonian, Cassegrain, etc., of at least one of the telescopes at the observatory.
- Make a list of some astronomical objects viewed with a telescope while at the observatory.
- Provide a picture of themselves at the observatory.

STUDENT MATERIALS

Students should bring the following items with them to the observatory

- penlight or flashlight
- camera to take a selfie at the observatory
- clip board (optional)

STUDENT REQUIREMENTS

Students doing this lab should turn in the Observatory Report form. This form is to be completed individually by each student. The observatory visit should be fun, and you will miss out on the best part of astronomy if you simply copy a friend's report. If you do this, it will not count as a completed lab.

INTRODUCTION

Attending an observatory open house, or a special observing session provided for your class, should be one of the most enjoyable experiences you will have in your astronomy course. There may be observatories in your area that hold regular open houses for the general public. These are usually operated by small colleges or universities. Your lab instructor can tell you when and where such open houses are being held. If there are no such facilities, then your lab or lecture instructor may be willing to hold observing sessions somewhere on campus using small portable telescopes. These telescopes will provide you with an excellent view of the moon, planets, binary stars, and the brighter nebulae in the sky. A little preparation on your part can make your observing experience more rewarding.

Several days before going to the observing facility you should read up about telescopes in general and about what things are currently visible in the night sky. Your textbook has at least one chapter which covers telescopes. Skim through this to refresh your memory about different types of telescopes and mountings. This material will usually be heavily slanted towards professional telescopes and observatories. However, you may also want to be familiar with amateur telescopes which you are also likely to encounter in the lawn of the observatory or at a campus observing session for your class. Both **Sky and Telescope** and **Astronomy** magazines have articles and advertisements about amateur telescopes. They also have monthly sky charts which tell you what can be seen in the early evening sky. These magazines can be purchased at most book stores and one or both are usually available in libraries. There respective Web sites are www.skypub.com and www.kalmback.com (click on the Astronomy magazine icon.) By making this preparation in advance you will be better prepared for the terms and jargon used by any astronomers you may encounter, and you will also be in a better position to ask intelligent questions to any astronomers you meet.

PROCEDURE

Preparation for Observing

1) Obtain a list of observatories and their public observing schedule. Your lab instructor will probably be able to help you with rounding up this list.

2) Watch the weather reports and look for a potentially clear night which also occurs on a night listed as a public night at one of the observing sites.

3) Before attending round up any materials you may want to take with you such as flashlights, star charts, writing materials, phone camera, insect replant, etc.

4) You should dress appropriately. Wear pants and comfortable shoes. You may be climbing some stairs, or standing on decking, high heels and skirts are not recommended. Most observatories are open to the outside air. So, if it is cold outside be sure to bring a jacket, coat, gloves, etc. Open toed shoes are discourage in case you step in an ant hill or encounter some other ground hazards.

5) Before you attend it may be a good idea to make one last check of the weather. If it has become overcast, you may want to reconsider and try on a different night when you can see something. If it is clear, then go out and enjoy the beauty of the starry sky.

At the Observatory

6) On the Report form write down the date of your visit, the observatory's name and general location, such as Hard Labor Creek Observatory, Hard Labor Creek State Park.

7) Before it is completely dark or at a specified location take a picture of yourself at the observatory, or have a friend take your picture. All observatories forbid flash pictures being while people are looking through telescopes. That is why you need to take your picture outside during twilight or at the specified location in a hallway or reception area. Be sure to include your picture on the observatory report as proof you attended.

8) On the report form write down the weather conditions while you were at the observatory, such as clear, partly cloudy, overcast (hopefully you stayed home and will not list this one).

9) On the report form write down the optical design of at least one of the telescopes you used at the observatory, such as 20-inch Cassegrain, or 12-inch Newtonian, etc. There may be more than one telescope. You only need to write down one not all of them.

10) On the report form write down two objects viewed through one of the telescopes, such as Jupiter, the Moon, etc.

Name _____

Lab Sec. _____

Observatory Report

Date: Name of Observatory: Location: Weather Conditions: Optical Design of Telescope: Objects View with Telescope: 1) 2)	Student Picture Goes Here