



# Lake Afton Public Observatory

## 2009 Public Programs



### Observatory Hours

The Observatory is open to the public on Friday and Saturday evenings. Observing through the telescope begins shortly after the doors open. Public program times are given below, but please note that they are subject to change. Call 316-WSU-STAR (316-978-7827) for information on specific programs and times.

January 9 - February 28	7:30-10:00 p.m.
March 1 - 31	8:00-10:00 p.m.
April 1 - April 30	8:30-10:30 p.m.
May 1 - August 31	9:00-11:00 p.m.
September 1 - 30	8:00-10:00 p.m.
October 1 - Dec. 19	7:30-10:00 p.m.
December 20 - January 3	CLOSED

### Program Cancellations

An Observatory program will automatically be canceled if there is a severe thunderstorm warning or tornado warning anywhere in Sedgwick county during the hour prior to the start of a program. Programs will also be canceled if travel conditions are hazardous. If possible, the recorded program information at 316-WSU-STAR will be changed to reflect program cancellations.

### Admission

Admission is \$4 for persons 13 and older, \$3 for children ages 6-12, and free for children under the age of 6. We also have a family rate of \$12.00 for Mom, Dad and their immediate children. (Please note that credit and debit cards are not accepted.) Reservations are not necessary. Call 316-978-3191 during normal office hours for group rates. Admission charges, program times, and program topics are subject to change. Call 316-WSU-STAR (316-978-7827) for current information.

### Public Programs

Each program consists of observing three or four objects through the Observatory's 16-inch telescope. These objects are chosen with a particular theme that ties them together. Of course if it is cloudy the program objects cannot be seen, although the Observatory's exhibits and displays are available.

#### The Discoveries of Galileo

January 9-10, 30-31 February 6-7

Imagine what it would have been like to have been the first person to point a telescope at the heavens. Join us as we "rediscover" craters on the Moon, the phases of Venus and how Galileo tried to use a pair of stars to find the distance to the stars.

#### Astronomy of the Future

January 16-17, 23-24  
February 13-14, 20-21, 27-28

With ever faster computers, giant Earth-based telescopes and telescopes in space, the tools that astronomers use to study the universe have changed dramatically over the last twenty years. What types of changes might the next twenty years bring? We will explore the answer to that question as we observe Venus, a giant dying star, a cluster of stars, clouds of interstellar gas, and a distant galaxy.

#### Moons, Rings, and Other Things

March 6-7 April 3-4  
May 1-2, 29-30 June 5-6, 26-27

This is your chance to come out to the Observatory and use our 16" diameter telescope to get a close up look at the Moon with its mountains and craters, Saturn with its moons and rings, and a red giant star in its final phase of life.

#### Celestial Favorites

March 13-14, 20-21, 27-28  
April 10-11, 17-18, 24-25  
May 8-9, 15-16, 22-23  
June 12-13, 19-20

With so many beautiful objects to view in the night skies, sometimes it is hard for us to pick what you might like to look at. So in addition to looking at Saturn, a dying star, a cluster of stars and a "nearby" galaxy, we will let our visitors choose an object to observe.

### Voyage through the Solar System

July 3-4, 31  
August 1, 28-29  
September 4-5, 25-26

Using the Observatory's 16" telescope, visitors can journey through our solar system as we commemorate the 30<sup>th</sup> anniversary of the Voyager spacecraft's fly-by of Jupiter. Our first stop will be our Moon, then we'll visit Saturn (in July), then Jupiter (beginning August 1), and finally Neptune (beginning August 15)

### Famous Astronomers

July 10-11, 17-18, 24-25  
August 7-8, 14-15, 21-22  
September 11-12, 18-19

Earth turns on its axis once a day; stars fuse hydrogen into helium; our galaxy is only one of billions in a vast expanding universe. Today we know these things, but who were the men and women who figured them out? Attend this program and find out while we look at Saturn (in July), Jupiter (beginning August 1) a cluster of stars, a planetary nebula, and a distant galaxy.

### Exploring the Solar System

October 2-3, 23-24, 30-31  
November 27-28

Join us as we celebrate the anniversaries of significant milestones in the unmanned exploration of our solar system. We will be viewing our Moon, Jupiter, Uranus and Neptune as we discuss the wondrous discoveries made by unmanned probes over the last 50 years.

### Exploring the Milky Way

October 9-10, 16-17  
November 6-7, 13-14, 20-21  
December 4-5, 11-12, 18-19

Our Milky Way galaxy is not just a hazy streak of distant stars visible in the night sky on a dark clear night. Every object we can see with our naked eye in the night sky is part of our home galaxy. During this program, we will explore Jupiter, double stars, clouds of interstellar gas, and star clusters. We will conclude the program by viewing another galaxy that is very similar to our own Milky Way.

Observatory programs are subject to change. Call 316-978-7827 to confirm dates and times.

## Photography Programs

Have you ever wanted to take astronomical photographs of the planets, Moon, or stars? If so, join us for our special photography programs.

On selected clear nights, bring your 35 mm single-lens reflex camera (the type with a removable lens) to take astronomical photographs using the Observatory's telescope. [Note that Automatic 35 mm cameras without a manual override cannot be used to take astronomical photos.]

If you do not have the proper camera, bring a USB flash drive instead. After you use the Observatory's digital SLR to take your pictures, we will transfer them to your flash drive for you to take home and print.



The Orion Nebula as photographed through the Observatory's 16" telescope.

Object	Time and Date
Venus	6:30 p.m., Jan. 17
Orion Nebula (M42) <sup>1</sup>	10:00 p.m., Feb. 21
Saturn	10:00 p.m., Mar. 21
Saturn	10:30 p.m., April 18
Saturn	11:00 p.m., May 16
Full Moon	11:00 p.m., June 6
Summer Milky Way <sup>2</sup>	11:00 p.m., July 18
Jupiter	11:00 p.m., Aug. 15
Moon	10:00 p.m., Sept. 26
Jupiter	10:00 p.m., Oct. 17
Moon	10:00 p.m., Nov. 28
Andromeda (M31) <sup>1</sup>	10:00 p.m., Dec. 12

<sup>1</sup>ISO 800 or faster speed film, **telephoto lens, and cable release are required.**

<sup>2</sup>ISO 800 or faster speed film, **a tripod, 50mm lens, and cable release are required.**

For all other programs ISO 400 or 800 color film and a cable release are recommended.

## Exhibits

Only part of the world of astronomy can be seen through a telescope. Satellites bring us close-up views of distant planets and their moons. Computers help astronomers unravel the lives of stars. These ideas and more are brought down to Earth by the Observatory's interactive exhibits and displays.

You can make your own telescope, travel through the solar system on a scavenger hunt, explore the properties of light, examine rocks from both Mars and the Moon, learn to use a small telescope and much, much, more.

## School Programs

Tuesday and Thursday evenings as well as Wednesday mornings and afternoons are available for school groups by reservation only. For information about school programs, school resource materials, or making a reservation, contact the Observatory office at (316)978-3191 during normal business hours.

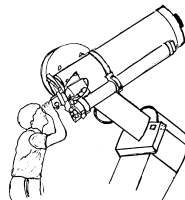
## Cloudy Night Activities

It is a fact of life that there will be cloudy nights. While the telescope can't see through clouds, there is still much to do at the Observatory. You can:

- receive a tour of the telescope and an explanation of how it works,
- use a computer to view images of objects you would have seen that evening had it been clear and to discover how those objects are related,
- explore the Observatory's hands-on astronomy exhibits.

## Current Sky Information

For information on events taking place in the sky call 316-WSU-STAR and choose option number three.



## Contact Us

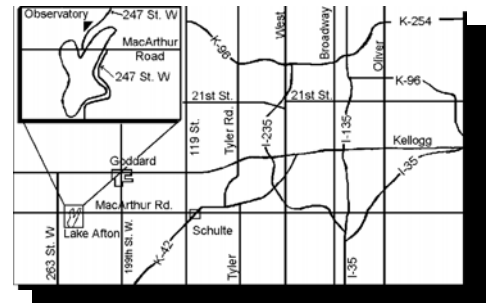
Program information can be found at:  
**316-WSU-STAR**  
**(316-978-7827)**

For inquiries and reservations call:  
**316-978-3191**  
during normal office hours

Our Internet address is:  
**[www.wichita.edu/lapo](http://www.wichita.edu/lapo)**

## Location

The Observatory is located approximately twenty miles southwest of downtown Wichita on MacArthur Road at 247th Street West in Lake Afton County Park. It is immediately north of the lake, just off MacArthur Road. Lake Afton can be reached by any of the following routes: west from Wichita on MacArthur; west from Wichita on U.S. 54 to 199<sup>th</sup> St. West in Goddard, then south three miles to MacArthur and then three miles west; or southwest on K-42 to the stoplight at MacArthur Road and then nine miles west (turn right) on MacArthur



### Notice of Nondiscrimination

Wichita State University does not discriminate on the basis of race, religion, color, national origin, sex, age, or disability. The following person has been designated to handle inquiries regarding nondiscrimination policies: Director, Office of Affirmative Action, Wichita State University, 1845 Fairmount, Wichita, Kansas 67260-0145; telephone 316-978-3371.

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The Lake Afton Public Observatory is supported primarily by Wichita State University and operated by the WSU Fairmount Center for Science and Mathematics Education. Additional support is provided by Sedgwick County.