

APRIL 2011 ASTRONOMY  
*From the Trackman Planetarium at Joliet Junior College*

April is a good month for viewing the evening skies. The sun sets relatively early, the temperatures are mild, and the mosquitoes have yet to start their hunt for fresh blood. Get out your binoculars and look at the universe - and wonder if someone isn't up there looking back at you!

In April, there are still some of the best winter targets in the sky. Orion, with the spectacular Orion Nebula is low in the western sky after sunset. The nebula is a cloud of gas that is a nursery for new solar systems and is visible to the naked eye below the three stars that make up Orion's belt. The Nebula is an excellent binocular target. We will be losing Orion in the sun's glare at the end of April. Follow Orion's belt to the east and you come to the brightest star in the sky - Sirius. Above Orion and to the left are two stars that mark the heads of the Gemini twins. Follow those two stars down and to the left with your binoculars and you will come across the Beehive star cluster. The Big Dipper is high in the sky at mid-evening. The two stars that make up the part of the bowl opposite the handle are the pointer stars. Follow them to the north and you come to Polaris - the north star. If you were at the north pole, the Polaris would be directly above you. However, you wouldn't be able to see Polaris because the sun won't set again at the north pole until September. Below the Big Dipper is Regulas, the star that marks the chin of Leo the Lion. Continue west from Regulas and you come to Arcturus - the fourth brightest star in the sky. Arcturus is at the bottom of the constellation of Bootes. Below and to the right of Arcturus is another bright star, Spica. Above Spica is what appears to be a yellow star. That yellow "star" is Saturn. Saturn will be in the evening sky all summer, and if you get the chance to see the ringed planet in a telescope - take it! Everyone is astonished when they see Saturn and its rings. Saturn is at its closest to the Earth on April 3rd when it will be 800 million miles from us. There are tentative plans to have a "Saturn Viewing" at Joliet Junior College during June. Meanwhile, we have lost Jupiter in the sun's glare. Jupiter will pass behind the sun on April 6th and it will be a morning planet starting in May. Venus is still rising just before sunrise but we will be losing it in the sun's glare at the beginning of May.

The April full moon is on the 17th local time. (The 18th Universal Time - which is five hours ahead of us.) If you missed the super-hyped full moon on March 19th, look for the full moon on April 17th. The April full moon will only be 1,260 miles further from Earth than the March moon when it rises at 7:30 pm. That means the April moon image will be only 12 arc seconds smaller than the March moon. To put that in perspective, the two stars that make up the center star in the handle of the Big Dipper are Alcor and Mizar. They are so close together that the Native Americans and the ancient Egyptians used the two stars as an eye test - if they could see two stars, they had good eyesight. (Try it!) The hardly perceptible separation between those two stars is 710 arc seconds.

The sun starts April in the constellation of Pisces and on the 19th it moves into the constellation of Aries where it will spend the rest of the month.

On March 17th the Messenger spacecraft was inserted into an orbit around Mercury. Messenger is the first spacecraft to orbit Mercury and the first new pictures of Mercury have already been released by NASA.

The Lyrid Meteor Shower is on the 22nd when the Earth passes through the debris left by comet Thatcher. Normally, the Lyrid Shower results in 20 - 30 meteors per hour, but there have been years when it is more intense. (1982 for one.) The best time to view the Lyrids is in the early morning hours. Look toward the bright star Vega which is in the eastern sky. Unfortunately, the moon will make viewing difficult.

On April 18th, Dr. You-Hua Chue from the University of Illinois at Urbana-Champaign will be giving a public talk at Joliet Junior College on "Interplay between Massive Stars and Gas in Galaxies". The program will be held in room D2002 at 5:00 pm. Refreshments will be served at 4:45 pm. The program is presented at no charge by the Department of Natural Sciences and the Trackman Planetarium. Call Dr. Noella D'Cruz at 815-280-2572 for more information.

The April shows at the Planetarium are on the 7th at 6:30 pm (*Are There Aliens?*), on the 12th at 7:30 pm (*Comets, Asteroids and Meteors*), on the 21st at 6:30 pm (*The Solar System*), and on the 26th at 7:30 pm (*Sun, Earth and Moon*). Public shows at the Trackman Planetarium are presented at no charge as a community service of Joliet Junior College. The public shows will continue until the first week in June, but we are accepting requests for Group Shows throughout the summer. For more information on Group Shows, call Christine McKittrick at 815-280-NOVA (6682) between 7:00 am and 12:30 pm.

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