The Night Sky

Lunar Eclipse on the Morning of March 3rd

If we are lucky enough to get a clear sky early in the morning on Tuesday, March 3rd, 2026, we will be in for a treat -- a total lunar eclipse! Lunar eclipses are best seen with the naked-eye, telescopes or binoculars are NOT needed. All you have to do, is to step outside from your house and look up. The partial eclipse of the Moon begins at 4:50 a.m. EST when the Moon first enters the Earth's umbral (darkest-part) shadow. As the Moon moves deeper and deeper into the Earth's shadow, totality begins at 6:04 a.m., the deepest part of the eclipse, mid-eclipse is at 6:34 a.m., and totality ends at 7:03 a.m. As the Moon then moves out of the Earth's shadow, the partial lunar eclipse ends at 8:18 a.m. Since the Moon needs to be at full phase for a lunar eclipse to occur, the Moon has to be on the opposite side of the sky from the Sun. Since sunrise occurs at 6:57 a.m. on March 3rd, the Moon will be hovering above the western horizon while this eclipse is occurring. Indeed, at moonset, the Moon will still be in totality. It should make for some spectacular photos! If you miss this lunar eclipse, you will have to wait 3 years for the next lunar eclipse visible from eastern Tennessee – this eclipse occurs on June 26, 2029.

After a long hiatis while Venus swung to the back side of the Sun, our brightest planet absence from the night sky has been noted. For most of February, Venus has been sitting very low above the western horizon during the bright evening twilight just after sunset. Now in March, Venus slowly gains altitude and now becomes noticeable above the western horizon for about an hour after sunset. On the evenings of March 7th and 8th, Venus and Saturn have a very close conjunction, where they will appear only one degree apart! On the 7th, Saturn appears to the upper left of Venus, and the following night, Saturn is to the lower left of brilliant Venus. Unfortunately, this close conjunction will be in the bright evening twilight, so you might need binoculars to spot Saturn next to Venus. At this pairing, Venus is 90 times brighter than the ringer planet.

This will be your last chance to see Saturn during this apparision, since within a week of this conjunction, Saturn will become lost in the solar glar as it starts its passage in back of the Sun.

Jupiter sits high overhead during the evening hours throughout the month of March. It makes a nice triangle with Gemini's two brightest stars, Castor and Pollux.

The Moon will reach full phase on March 3rd at 7:38 a.m. EST. As mentioned above, the Moon will be undergoing an eclipse at this full phase. The March Full Moon is known as the Full Worm Moon by many Native Americans. As the temperature begins to warm and the ground begins to thaw, earthworm casts appear, heralding the return of the robins.

Daylight savings time begins at 2:00 a.m. on Sunday, March 8th. Make sure you "spring" your clocks forward by 1 hour before you go to bed the prior Saturday. On March 20th, spring begins in the northern hemisphere at the vernal equinox which occurs at 10:46 a.m. EDT.

The last of this spring's astronomy open house takes place on Saturday, March 21st from 8 to 10 pm at the campus Harry D. Powell Observatory. At these open houses, the public can view objects in the sky through telescopes and hear talks by faculty of the Physics and Astronomy Department. Note that the open houses are cancelled if the sky is cloudy. Further information about these open houses and directions to the observatory can be found on the web at https://www.etsu.edu/cas/physics/observatory/starparty.php.

For those of you who would rather explore the night sky indoors, this month's planetarium show will be on March 19th at 7:00 p.m. at the ETSU Planetarium in Hutcheson Hall. A location map of the Planetarium on the ETSU campus can be found on the web at https://www.etsu.edu/cas/physics/outreach/planetarium.php for further information.

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