

# Night Sky Viewing at Widener University

## September 2021

### Sunrise & Sunset Times (EDT)

	Sunrise	Sunset
Begin Month	6:29 am	7:34 pm
End Month	6:57 am	6:47 pm

### Naked-Eye Planets in the Evening & Morning Sky this Month

**Mercury** (*in Virgo*): Mercury resides in the evening sky this September, but it sets less than an hour after the Sun all month. Mercury may be glimpsed very low in the west 20-30 minutes after sunset for about the first 2½ weeks of the month; it reaches its greatest evening elongation with the Sun on September 13<sup>th</sup>. Binoculars will help spot Mercury against the bright twilight.

**Venus** (*in Virgo-Libra*): Venus, the second brightest object in the night sky (after the Moon) shines like a brilliant yellow star low in the west shortly after sunset. Little has changed with Venus since last month – it sets about an hour and a half after the Sun all month, which is 9 pm EDT on the 1<sup>st</sup> and by 8 pm on the 30<sup>th</sup>. Venus is best viewed around 30 minutes to an hour after sunset.

**Mars** (*in Leo-Virgo*): Mars is too closely aligned with the Sun to be seen for about the next two months. Mars had been residing in the evening sky since last autumn, but it will reach conjunction with the Sun on October 7<sup>th</sup> when it will lie on the opposite side of the Sun, six times farther away from Earth than it was at closest approach last October. Mars will reappear in the morning sky this coming November.

**Saturn** (*in Capricornus*): Saturn was in opposition with the Sun in early August, and it remains in excellent position for viewing on September evenings. Saturn resembles a cream-colored star to the right (west) of brilliant Jupiter in the southeast at dusk. Saturn reaches its highest point above the southern horizon at 10 pm EDT in mid-September; it sets around 4 am as September begins and by 1:30 am at month's end. Even a small telescope will reveal Saturn's magnificent ring system.

**Jupiter** (*in Capricornus*): Jupiter, which resembles a brilliant golden star to the east of much fainter Saturn, reached its opposition with the Sun on August 19<sup>th</sup>. Jupiter transits the meridian (stands due south) around 11 pm in mid-September, or about an hour after Saturn. Jupiter also sets about an hour after Saturn: 5 am on the 1<sup>st</sup> and 2:30 am on the 30<sup>th</sup>. A modest telescope will show Jupiter's cloud bands and possibly also its Great Red Spot.

**Earth**: reaches the **Autumnal Equinox** on the 22<sup>nd</sup> at 3:22 pm EDT. Summer ends and autumn begins in the Northern Hemisphere, while winter ends and spring begins in the Southern Hemisphere.

### Lunar Phases



New  
6<sup>th</sup>



First Quarter  
13<sup>th</sup>



Full  
20<sup>th</sup>



Last Quarter  
28<sup>th</sup>

"Harvest Moon"

### Constellations & Bright Stars Visible Around 9 pm EDT in September

**Ursa Major** – low above NNW horizon  
Asterism *Big Dipper*, w/ pointer stars *Merak*, *Dubhe*; handle stars *Alioth*, *Mizar* (& *Alcor*), *Alkaid*

**Ursa Minor** – up in NNW, to left of North Star  
Asterism *Little Dipper*, contains *Polaris* (North Star)

**Boötes** – getting low in WSW  
Bright star *Arcturus*

**Corona Borealis** – halfway up in W, above Boötes  
Bright star *Gemma* (also called *Alphecca*)

**Hercules** – high in W, between Lyra & Corona Borealis  
"Keystone" pattern of 4 stars, star cluster M13

**Scorpius** – getting low in SW  
Bright star *Antares*; stars *Shaula* and *Lesath* form "Cat's Eyes" in Scorpius's tail;

**Ophiuchus** – halfway up in SW, above *Scorpius*  
Bright star *Rasalhague*

**Sagittarius** – low in S  
Asterism the "Tea Pot"

**Lyra** – overhead  
Bright star *Vega*

**Aquila** – high up in S, below *Vega*  
Bright star *Altair*

**Cygnus** – high in E, east of Lyra  
Bright star *Deneb*, forms Summer Triangle with *Altair* & *Deneb*

**Pegasus (including the Great Square)** – rising in E

**Cassiopeia** – rising in NE  
Easily recognizable "W" shape

**Perseus** – rising in NE, below Cassiopeia  
Bright stars *Mirfak* and *Algol*

For more information on the night sky, visit the Widener Observatory Stargazing website at [www.widener.edu/stargazing/](http://www.widener.edu/stargazing/). A set of free sky maps can be obtained at [www.skymaps.com/](http://www.skymaps.com/).