

Night Sky Viewing at Widener University

September 2022

Sunrise & Sunset Times (EDT)

	Sunrise	Sunset
Begin Month	6:29 am	7:34 pm
End Month	6:56 am	6:47 pm

Lunar Phases



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

Mercury (*in Virgo*): Mercury was at greatest evening elongation with the Sun on August 27th, and as September opens Mercury can still be viewed at dusk, but with difficulty. Mercury appears to be a bright star quite low in the west after sunset during the first few days of September. Thereafter, Mercury vanishes into the evening twilight, and on September 23rd it passes between the Sun and Earth (inferior conjunction). Mercury pops up at dawn as September closes out.

Saturn (*in Capricornus*): Saturn was in opposition with the Sun in mid-August, when it was closest to Earth, and it remains in excellent position for viewing on September evenings. Saturn is currently nestled among the faint stars of Capricornus the Sea Goat; it resembles a bright, cream-colored star in the southeast at dusk. Saturn culminates (reaches its highest point above the southern horizon) by 11 pm EDT in mid-September; it sets around 4 am as September begins and by 2:45 am at month's end. Saturn's beautiful rings and its largest moon Titan are easily revealed in a small telescope.

Jupiter (*in Pisces*): Jupiter passes from Cetus into Pisces at the very beginning of September; it trails Saturn by roughly 3 hours this month. Brilliant, golden Jupiter is unmistakable as it rises above the eastern horizon by about 8:30 pm EDT during the opening days of September. At the end of the month, on September 26th Jupiter reaches opposition with the Sun, when it will be brightest and visible all night long.

Mars (*in Taurus*): Mars currently resides within the constellation Taurus, and Mars's orangish color is similar to that of Taurus's leading light, Aldebaran. However, the former is at least three times brighter than the latter. Mars rises by 11:30 pm on September 1st, and by 10 pm on the 30th. Mars stands high in the south during dawn twilight. Now just 3 months from its opposition with the Sun (and closest approach to Earth), Mars continues to steadily brighten as it gets nearer to Earth.

Venus (*in Leo-Virgo*): The splendiferous "morning star," Venus lights up the sky near the eastern horizon, but it has become increasingly difficult to locate against the bright dawn sky. At the start of September, Venus rises about an hour before sunrise (around 5:15 am EDT), but by month's end, it rises only about a half-hour before sunrise and will be too close to the Sun to view. Venus will pass behind the Sun (superior conjunction) in late October, and then reappear at dusk in December.

Earth: reaches the **Autumnal Equinox** on the 22nd at 9:04 pm EDT. Summer ends and autumn begins in the northern hemisphere, while winter ends and spring begins in the southern hemisphere.

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"
Planet *Saturn* in neighboring Capricornus
- 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/. A set of free sky maps can be obtained at www.skymaps.com/.