

Night Sky Viewing at Widener University

July 2017

Sunrise & Sunset Times (EDT)

	Sunrise	Sunset
Begin Month	5:37 am	8:34 pm
End Month	6:00 am	8:16 pm

Lunar Phases



Naked Eye Planets This Month in the Evening & Morning Sky

Mercury (*in Gemini-Cancer-Leo*): The planet Mercury is visible at dusk especially toward the end of the month when it at greatest elongation with the Sun (on the 30th). Look for Mercury hovering very low above the northwestern horizon about 30 minutes after sunset; it looks like a yellow star. Binoculars will help pick it out of the bright twilight.

Jupiter (*in Virgo*): Jupiter maintains its residence within Virgo, resembling a brilliant golden star to the west of the much fainter bluish-white (true) star Spica. Jupiter stands halfway up in the southwest at nightfall in mid-July, and remains in fine position for viewing during the first half of the night, setting around 1 am on the 1st and by about 11 pm on the 31st. Jupiter will remain in the evening sky for the rest of the summer, getting lower with each passing week.

Saturn (*in Ophiuchus*): Saturn reached opposition with the Sun last month, and it continues to be well placed for viewing in July. At around 10:30 pm in mid-July, Saturn stands low in the south and resembles a bright cream-colored star to the far left of the orangish true star Antares. Saturn sets after 4:30 am EDT on the 1st, and about 2:30 am on the 31st. This month is an ideal time to view Saturn's rings through a telescope (even a small amateur one) or a pair of high-quality 10×50 or larger binoculars mounted on a tripod.

Venus (*in Taurus-Orion-Gemini*): Venus continues its dominance among both stars and planets in the pre-dawn sky, shining like a majestic yellow star in the east-northeast. Venus rises around 3 am, or nearly three hours before the Sun, for most of July. Back in early June, Venus was at greatest elongation with the Sun, but the ecliptic plane was then unfavorably orientated to the eastern horizon at dawn; the orientation has improved since then, so that Venus hovers a bit higher above the horizon in the early morning hours than it did over a month ago.

Mars (*in Gemini-Cancer*): Mars reaches conjunction with the Sun on July 26th EDT, and is not viewable all month. One year from now, in July 2018, Mars will reach its best opposition since 2003, so be patient!

Earth: Earth is at aphelion, its greatest distance from the Sun, on July 3rd, when it will be 3.3% farther from the Sun than it was in January.

Sun: (*in Gemini-Cancer*): On July 20th, the Sun crosses from the constellation Gemini into Cancer.

Constellations & Bright Stars Visible Around 10 pm EDT

- Leo** – very low in W, setting
Bright star *Regulus*, about to set
 - Virgo** – low in WSW, getting lower
Bright star *Spica*
Planet *Jupiter* to right of Spica
 - Ursa Major** – halfway up in NW, getting lower
Asterism *Big Dipper*, w/ pointer stars *Merak*, *Dubhe*;
handle stars *Alioth*, *Mizar* (& *Alcor*), *Alkaid*
 - Ursa Minor** – halfway up in N, directly above North Star
Asterism *Little Dipper*, contains *Polaris* (North Star)
 - Boötes** – high in WSW
Bright star *Arcturus*, well above Spica
 - Corona Borealis** – high in SW, to upper left of Arcturus
Bright star *Gemma* (also called *Alphekka*)
 - Libra** – one-third of way up in SSW
Bright stars *Zubenelgenubi*, *Zubeneschamali*
 - Scorpius** – low in S
Bright star *Antares*, forms triangle w/ Mars & Saturn
 - Ophiuchus** – halfway up in S, above Scorpius
Bright star *Ras Alhague*
Planet *Saturn* to left of Antares
 - Sagittarius** – low in SSE
Asterism the "Tea Pot"
 - Lyra** – high in E, approaching overhead
Bright star *Vega*
 - Aquila** – halfway up in SE
Bright star *Altair*
 - Cygnus** – high in E, below Lyra
Bright star *Deneb*
- Altair*, *Deneb*, & *Vega* form the Summer Triangle

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/.