

Night Sky Viewing at Widener University

September 2019

Sunrise & Sunset Times (EDT)

	Sunrise	Sunset
Begin Month	6:29 am	7:33 pm
End Month	6:56 am	6:46 pm

Naked Eye Planets in the Evening & Morning Sky this Month

Mercury (in *Leo-Virgo*): Mercury reaches superior conjunction with (passes behind) the Sun on September 3rd; it will unfortunately be lost in the Sun's glare for most of this month. As it turns out, Mercury will be relatively close (apparently) to Venus for much of the month, and both will technically be "evening stars."

Venus (in *Leo-Virgo*): After having adorned the morning sky for the first part of 2019, Venus passed behind the Sun as viewed from Earth (superior conjunction) last month, and this September it begins to transition into the evening sky. However, Venus is still too close to the Sun to be viewed all month, but it will gradually emerge from the solar glare during October.

Jupiter (in *Ophiuchus*): Brilliant, golden Jupiter burns in the south-southeast at nightfall on the 1st, above and to the left (east) of much dimmer orangish Antares. A telescope or even 7×50 binoculars will reveal Jupiter's four brightest moons. Jupiter sets around midnight EDT as September opens, and by 10 pm on the 30th.

Saturn (in *Sagittarius*): Saturn's rise follows Jupiter's by about two hours, and the ringed world passes due south by around 9 pm in early September. Saturn is now two months past its opposition with the Sun in early July; its brightness is similar to that of a typical first-magnitude star like Altair or Antares, though far less than that of brilliant Jupiter. Saturn sets by about 2 am on the 1st, and by midnight on the 30th.

Mars (in *Leo-Virgo*): Mars reaches conjunction with the Sun on September 2nd, and for a few weeks thereafter is too close to the Sun to be viewed. Mars will begin to reappear at dawn by the start of October.

Earth: reaches the **Autumnal Equinox** on the 23rd at 3:51 am EDT. Summer ends and autumn begins in the Northern Hemisphere.

Lunar Phases



Constellations & Bright Stars Visible Around 9 pm EDT

- 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 *Alphekka*)
- Hercules** – high overhead, 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*
Planet *Jupiter* above & to left (E) of *Antares*
- Sagittarius** – low in S
Asterism the "Tea Pot"; also contains planet *Saturn*
- 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/.