

SCHEDULE

BEGINNING/ADVANCED ADULT ASTRONOMY CAMP

MAY 26 (Friday)

Welcome to Camp!

Local Sidereal Time at midnight = 15:55:15

1:00 PM	meet at University Foundation Building (room 205) welcoming, refreshments, distribute materials	
2:15	tour the UA Mirror Laboratory	(Don)
4:00	drive to Mt. Lemmon	
6:00	arrive at Mt. Lemmon summit quick drive around site, move into dorms, dress for the outdoors	
6:30	dinner with video <i>“Cosmic Voyage”</i>	
7:19	moonset	
7:21	view sunset from the Army Tower	
7:30	drive to Mt. Bigelow 61" telescope for nighttime observing	
8:00	<i>“Reach for the Stars”</i>	(David Levy)
8:21	Iridium satellite flash (V=-6; azimuth 346 deg, altitude = 18 deg)	
8:30	observe planets and comet at 61" telescope must see: Jupiter, Saturn, NGC 3242 look for the “zodiacal light” observing options: <u>telescope</u> : eyepiece observing & astrophotography <u>outdoors</u> : constellation hunting & small telescopes <u>warm room</u> : image processing & Internet surfing	
8:57	end of astronomical twilight	
11:15	Great Red Spot transits on Jupiter	
12:00 AM	<u>snack</u> ; continued observing if desired or drive back to the summit also NEO hunting with 60" telescope on Mt. Lemmon also CCD color imaging with 12" telescope on Mt. Lemmon	
3:48	start of astronomical twilight	
5:20	sunrise	

MAY 27 (Saturday)
Planets & Solar Systems

Local Sidereal Time at midnight = 15:59:12

New Moon

- 5:20 AM sunrise
up early? feel free to snack in Army building
12:00 PM brunch
1:00 solar observing at 12" & 40" telescopes:
imaging the Sun in hydrogen-alpha & continuum light
"safe sun": eclipse glasses, welders glass, pinholes
see the daytime solar spectrum
see Venus in the daytime (naked eye & telescopic)
music selections: *"The Sun is a Mass of Incandescent Gas"*
- 2:00 *"The Foundations of Modern Cosmology"* (Don)
3:00 snack break
3:30 *"The Search for Near-Earth Objects"* (Al)
4:30 free time:
informal discussions with staff
plan your evening observing sequence
view cosmic rays in the cloud chamber
- 5:15 *"Music and Astronomy"*
(Matthew)
"Music of the Night" (Phantom of the Opera)
"On Viewing the Island Orb from Afar" (Whitehouse)
- 6:00 dinner with video *"Kennedy's Space Speech: 1962"*
7:21 view sunset from the Army Tower
7:30 meet at 60" telescope
one group drives to Mt. Bigelow
- 8:00 observing options:
60" telescope: Catalina Sky Survey for NEOs (Al)
61" telescope: eyepiece observing on Mt. Bigelow (Eric)
Europa shadow near setting on Jupiter
12" telescope: color CCD imaging (Don)
- 8:09 Iridium satellite flash (V=-6; azimuth 345 deg, altitude = 21 deg)
8:15 Iridium satellite flash (V=-1; azimuth 344 deg, altitude = 19 deg)
8:25 moonset
8:58 end of astronomical twilight
12:00 AM snack; bedtime or continued observing
1:00 Great Red Spot transits on Jupiter
3:08 Orbital pass of HST (V=3.1; SE-ESE; max altitude = 27 deg)
3:44 start of astronomical twilight
5:20 sunrise

MAY 28 (Sunday)
Traveling Through Time & Space

Local Sidereal Time at midnight = 16:03:08

5:20 AM	sunrise
up early?	feel free to snack in Army building
12:00 PM	brunch
1:00	“Stellar Astrophysics” (Patrick)
2:00	choice of activities: 1. “Space is Sooo Empty!” (outdoor hiking activity) scale modeling of our solar system and the nearby stars 2. CCD image processing (Eric)
4:15	“What Wakes Up the Black Holes?” (Eric)
5:15	“Music and Astronomy” (Matthew)
	“The Galaxy Song” (Black) “Time Machine” (Bates)
5:00	free time
6:00	dinner liquid nitrogen ice cream
7:22	sunset
7:15	meet at 60" telescope
7:30	observing options: <u>60” telescope</u> : Catalina Sky Survey for NEOs (Al) <u>61” telescope</u> : eyepiece observing on Mt. Bigelow (Eric) <u>12” telescope</u> : color CCD imaging (Don)
8:08	Iridium satellite flash (V=-1; azimuth 344 deg, altitude = 21 deg)
8:59	end of astronomical twilight
9:25	moonset
12:00 AM	<u>snack</u> ; bedtime or continued observing
3:07	Orbital pass of HST (V=3.6; SE-SE; max altitude = 19 deg)
3:44	start of astronomical twilight
4:07	Orbital pass of ISS (V=1.2; S-ENE; max altitude = 21 deg)
5:20	sunrise

MAY 29 (Monday)
Summing It Up

Local Sidereal Time at midnight = 16:07:05

5:20 AM	sunrise
up early?	on-your-own breakfast in Minnesota building check out the library: Videos, computer software, etc.
11:00	brunch; pack up your gear; group picture
12:00 PM	leave Mt. Lemmon for UA Foundation building
1:30	arrive in Tucson
1:45	drive to Kitt Peak National Observatory
3:00	tour of Kitt Peak facilities Visitors' Center & gift shop first
6:15	“picnic” dinner on Kitt Peak
7:23	sunset
7:30	leave for Tucson
8:02	Iridium satellite flash ($V=-1$; azimuth 344 deg, altitude = 24 deg)
8:59	end of astronomical twilight
8:45	Camp ends

All dinners and lectures will be held in the lounge of the Army radar facility.

We will try to keep the telescopes available ALL NIGHT LONG. However, campers should feel free to "sack out" at any time either for a nap or for the remainder of the night on Mt. Lemmon. Let us know if you are getting tired!!

See next page for details of optional activities.