Change in Direct-ion

The Planetarium would like to welcome the new director the planetarium, Levent Gurdemir.

Gurdemir, the former associate director of the planetarium and astronomy lab supervisor, has hit the ground running. Due to his endless work and enthusiasm, the planetarium has undergone many improvements. The planetarium has a new console, that allowed for new equipment. Come check out the new dance and strobe lights at the Rock Hall of Fame show on Fridays at 8:00 PM.

With his help, the planetarium has also been able to secure a tire from the space shuttle Columbia, on loan for the next three years. Read more about it on page 2. Better yet, come see it for yourself!

He has even secured the money for an upgraded video projection system. The new projectors will provide a brighter, more colorful show to our audiences. We expect the new projectors to be installed in December.

Good luck Levent!

---

Fall Schedule

Planetarium is playing two new full-dome planetarium shows this Fall. The shows are “TimeSpace” from the Adler Planetarium, and “Seven Wonders,” from Evans and Sutherland.

In “TimeSpace” travelers meet at the Event Horizon Cafe and make stops across time to see the Big Bang, the extinction of the dinosaurs, Mayan astronomers, the first walk on the Moon, and a possible future for mankind. The show is recommended for all ages.

“Seven Wonders” takes visitors to the ancient wonders of the world and describes them in detail, comparing them to our modern wonders; then transports the audience to see seven wonders of the Universe. The show is good for all ages.

Need something to do on Friday night? Visit the planetarium for the show Rock Hall of Fame. Rock Hall of Fame journeys through all the great classic rock of the seventies and eighties. Your educator will be there to entertain you with “trippy” light shows and amazing effects. Have a favorite song? The planetarium can take a few requests. Check with the educator for the list of songs.

Be sure to visit the planetarium during our Tuesday Morning Special. It’s great for small groups, homeschoolers, or walk-ins. The program will run at 10:00 A.M. on the second and fourth Tuesdays of the month, a different show each time. The price for the program will be $3 per person. Seating is limited, so groups should call 817-272-1185 in advance to reserve space. A full schedule is available on page 3.

Last but not least, come to our Spanish show on the first Sunday of every month, the planetarium will be showing Seven Wonders in Spanish at 4:00 PM.

---

SPECIAL NOTICE:

Want to have a special event at a special location? Try the planetarium! We host birthdays, weddings, holiday parties, and more. Call Tina at 817-272-1185 for details!
Space Shuttle Columbia Tire

The Planetarium at UT Arlington has been selected as a recipient in the new artifact loan program at NASA. The planetarium has received a tire from the main landing gear of the Space Shuttle Columbia, which was destroyed over East Texas on Feb. 1, 2003, on its landing descent to Kennedy Space Center after the completion of a microgravity research mission. University of Texas at Arlington alumnae Kalpana Chawla, for whom the university’s newest residence hall is named, was one of the crew members tragically killed in the accident.

The tire, which was used in mission STS-73, is on loan for three years, and will be displayed in the atrium area near the planetarium.

Space Shuttle Columbia launched on October 20, 1995 marking the start of mission STS-73, which is remembered at NASA as the mission with the most scrubs (cancellations of the launch date). STS-73 was a successful mission, whose experiments had a direct impact on Earth. Included in these technologies are LEDs, or Light Emitting Diodes, which produce a lot of light, with very little energy. These little lights have found their way into everything from flashlights, stoplights and police lights. They were used on Columbia to grow a few small potatoes. Many greenhouses have taken this technology home as well. Mission specialists were also able to grow crystals that improved computer chips, allowing computers to work faster and use less power.

When Columbia landed, on November 5, 1995, it rolled 9,032 ft. and took 55 seconds to come to a complete stop. During the entire mission, the shuttle traveled over 6.6 million miles. More about the mission, and Kalpana Chawla can be found at the planetarium.

NASA supported the University in the development of its 2007 original show, “Cosmic CSI.” Another two NASA-funded shows, “SOFIA – the Unseen Universe,” and “Magnificent Sun,” are under development, funded by grants awarded to Dr. Manfred Cuntz, associate professor of physics and the co-director of astronomy.

Image Left: STS-73 Crew with Commander Kenneth Bowersox, Pilot Kent Rominger, Payload Commander Kathryn Thornton, Mission Specialists Catherine Coleman and Michael Lopez-Alegria, Payload Specialists Fred Leslie and Albert Sacco Jr.
Image Above: Kalpana Chawla
Image Credit: NASA
September 5, 2008 - February 15, 2009

Fridays:
7:00 - Seven Wonders
8:00 - Rock Hall of Fame
* No 8:00 P.M. show on Oct. 24

Saturdays and Sundays:
1:00 TimeSpace
2:30 - Seven Wonders
4:00 - Un programa en español el primer domingo del mes

NEW - Tuesday Morning Special

September 23, 2008 – February 10, 2009
Second and fourth Tuesdays of each month, a different show each time. Good for small groups, homeschool groups, or walk-ins.
Groups: space is limited, call to secure seating.

Schedule:
Sept. 23 Honey, I Shrunk the Solar System
Oct. 14 Seven Wonders
Oct. 28 Spooky Skies
Nov. 11 TimeSpace
Nov. 25 Cosmic CSI
Dec. 9 Stars at Night are Big and Bright
Dec. 23 Season of Light
Jan. 13 Stars of the Pharoahs
Jan. 27 Astronaut
Feb. 10 Black Holes

Go and See It!
Want to know when the Space Shuttle, the ISS, or other satellite is visible? Check out www.heavens-above.com. Enter your viewing location or coordinates, then bookmark your home location’s page. Great links to other space information, too!
Frozen Death Looms for Phoenix Mars Lander

After more than four months on the arctic plains of the red planet, NASA's Phoenix Mars Lander’s days are finally numbered. As the sun begins to set for the frigid Martian winter, the spacecraft will lose its energy supply, freeze and eventually fall into a mechanical coma from which it will likely never wake up.

Phoenix’s mission has been to dig up samples of Martian dirt and the subsurface layer of rock-hard water ice at its landing site in Mars’ Vastitas Borealis plains. The lander has been scanning the samples for signs of the region’s past potential for habitability.

Phoenix landed on Mars on May 25, late spring in the Martian northern hemisphere. The mission was originally slated to last three months, to the end of August, but was extended twice; first to the end of September and recently through the end of December.

But whether or not Phoenix will survive that long is uncertain and depends on how the spacecraft’s systems handle its ever-dwindling energy supply and the harsh conditions of the Martian winter.

“We’re at the mercy of Mars,” said Phoenix project manager Barry Goldstein, of NASA’s Jet Propulsion Laboratory in Pasadena, Calif.

As winter descends on the Martian arctic, two important things will happen: The sun will sink below the horizon, and “it’s going to get cold,” said Phoenix meteorological team member Peter Taylor of York University in Toronto, Canada.

Of course, Mars is never warm by Earth standards, but summer above the Martian arctic circle is downright balmy compared to the winter.

Midday temperatures at Phoenix’s landing site hit about -4 degrees Fahrenheit in the summer. Nighttime temperatures then still dropped to -112 F. By mid-November, those night temperatures are expected to plummet to -184 F.

Read more at http://www.space.com/business/technology/081006-tw-phoenix-dying.html

NASA’s Legacy: The Quest for the Moon

The first manned spaceflights occurred in the shadow of the tensest moments of the Cold War between the United States and the Soviet Union. With the world’s European powers in disarray after World War II, the United States and the Soviet Union used propaganda, alliances and proxy wars to outflank the other and broaden their respective spheres of influence. Space became another way to exert dominance over the other.

The space race was “war by another means,” said Roger Launius, senior curator at the National Air and Space Museum here. The Cold War rivals were engaging in a technological rivalry and wanted to prove to non-aligned nations and the rest of the world that they were “second to none,” Launius said in an Aug. 25 interview.

The Soviet Union struck first in the space race, launching the first satellite, Sputnik, Oct. 4, 1957, leading to the formation of NASA a year later. The agency celebrated its 50th anniversary this month.

The superpowers were roughly on parallel paths, according to Launius and John Logsdon, former director of the Space Policy Institute at George Washington University here. The United States launched the first American to space, Alan Shepard, on a Mercury capsule, just about a month after the Soviets sent the first man, Yuri Gagarin, into orbit on a Vostok spacecraft April 12, 1961.

“The [U.S.] military had been talking about humans in space since the mid-50s on,” Logsdon said in an Aug. 20 phone interview. The U.S. Air Force’s Man-In-Space-Soonest project was a conceptual program, which then was transferred to NASA control and eventually became Project Mercury.

October Skymap

October 1 - 9:30 P.M.
October 15 - 8:30 P.M.
October 30 - 7:30 P.M.

Skymap from www.heavens-above.com
In the Sky this Month

The Sun

<table>
<thead>
<tr>
<th>Date</th>
<th>Sunrise</th>
<th>Sunset</th>
</tr>
</thead>
<tbody>
<tr>
<td>October 1</td>
<td>7:23 A.M.</td>
<td>7:12 P.M.</td>
</tr>
<tr>
<td>October 15</td>
<td>7:33 A.M.</td>
<td>6:55 P.M.</td>
</tr>
<tr>
<td>October 31</td>
<td>7:46 A.M.</td>
<td>6:38 P.M.</td>
</tr>
</tbody>
</table>

Moon

- First Quarter: October 6
- Full Moon: October 14
- Last Quarter: October 21
- New Moon: October 28

Planets

Venus enters the stage in the evening sky after sundown. Look towards the West as soon as it gets dark. If you see a bright blinking object it’s heading for the airport. If it’s a bright steady object, that is Venus. Watch as Venus gets higher each week at sundown through the end of Summer and into Fall.

Jupiter continues its good showing this month, starting the evening out almost due South, about one-third of the way from the horizon to the zenith.

If you head outside about 1 hour before sunrise, you will be treated to a two more planets.

Saturn will be visible all month, low in the eastern horizon about an hour before sunrise. Don’t confuse it with the bright star Regulus, in the constellation Leo, the Lion, which is up and to the right.

Mercury will also become visible in Mid-October. Look very low to the eastern horizon one hour before sunrise. This will be the best time all year to see this small planet.

Stars

Look for the Pleaides, a beautiful cluster of stars, in the constellation Taurus, the Bull. It will rise around 9:00 P.M. October 1, but by Halloween it will rise around 7:00 P.M.

Planetarium this Month

Fridays:
- 7:00 - Seven Wonders
- 8:00 - Rock Hall of Fame

Saturdays and Sundays:
- 1:00 TimeSpace
- 2:30 - Seven Wonders
- 4:00 - Un programa en español el primer domingo del mes

Tuesday Morning Special:
- Oct. 14 at 10:00 A.M. Seven Wonders
- Oct. 28 at 10:00 A.M. Spooky Skies

Prices:
- $5 - adults
- $4 - Kids (18 & under), Seniors, Non-UTA students
- $3 - UTA Faculty/Staff/Alumni (with ID)
- $2 - UTA students
- $3 - Groups of 10 or more with reservation