

# STARS

## A&M astronomy classes explore the universe at the Physics Observatory

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Staff writer

"Space: the final frontier." The immortal words of Captain Kirk still ring true today. Since the days of Copernicus, Galileo and Newton, the knowledge of the universe has grown from the dots in the sky to the observance of supernovas—all coming together to create the field of astronomy. Astronomy is more than observing stars and planets, it is the scientific study of the universe beyond the Earth. Astronomy specifically entails the observation, calculation and theoretical interpre-

tation of the positions, dimensions, distributions, motion, composition and evolution of celestial bodies and phenomena.

With the discovery of pulsars, landing on the moon and the space probe Galileo travelling to Jupiter, astronomy is peaking the interest of many people.

Courses are offered on campuses to meet student's growing interest in astronomy.

Texas A&M offers a general astronomy class, astronomy for engineers and observational astronomy. Many campuses are also equipped with telescopes for observing the phenomenon of outer space.

In 1982, the Physics Observatory was built for the observational astronomy class

at A&M. It is equipped with an 8-inch and a 14-inch telescope.

Timothy Bronk, a teacher of observational astronomy, said the telescope has been used for research but is mainly used for the observational classes.

"Many people are not aware that there is a telescope on campus," Bronk said. "When they have to take a science elective, they skip over the physics section because they think it is too hard."

Dr. George Kattawar, a physics professor and director of the Physics Observatory, said there is not a broad interest in astronomy on the A&M campus.

"We do not have any astronomy professor on campus and the classes offered have been reduced," Kattawar said. "At Berkeley, 25 percent of the students take astronomy; U.T. offers over 20 classes in astronomy, and they have two of the biggest telescopes in Texas. This is a shame because A&M students do not realize what they are missing. Astronomy is the oldest science."

Kattawar said astronomy is not just looking at stars and the planets, but it is the history of the Earth and the universe.

"Through the Hubbell telescope we have been able to see a quasar," Kattawar said. "By looking at the quasar we were looking at the beginning of the universe. Imagine if a star is 11 billion light years away then it would take 11 billion years for that light to travel to Earth and for us to see it. So it is like we are seeing history. There is no where else you can see that."

Bronk said the department received a \$50,000 grant to make improvements on the telescope.

Photographing devices will be added to the telescope, which will allow them to move the telescope with a computer.



COURTESY: THE TEXAS A&M UNIVERSITY PHYSICS OBSERVATORY  
The Galilean satellites that surround Jupiter as photographed by the Physics Observatory telescope.

"The improvements will enhance the class and attract more people to do research," Bronk said. "We are able to see galaxies and star clusters. One of the neat things I saw through the telescope was the space station Mir flying by. I happened to know when it was coming and when to be at the observatory. I did not see the actual solar panel, but most people do not know that you can actually see the sun reflect off of the station."

Kattawar said the telescope is a good instrument for observation. People have been able to see comets, stars and planets.

Bronk said the landing on Mars has helped to bring interest toward astronomy. Shah Zaman, a former student who received his graduate degree in geophysics,

took students to the Physics Observatory to see the stars and the planets.

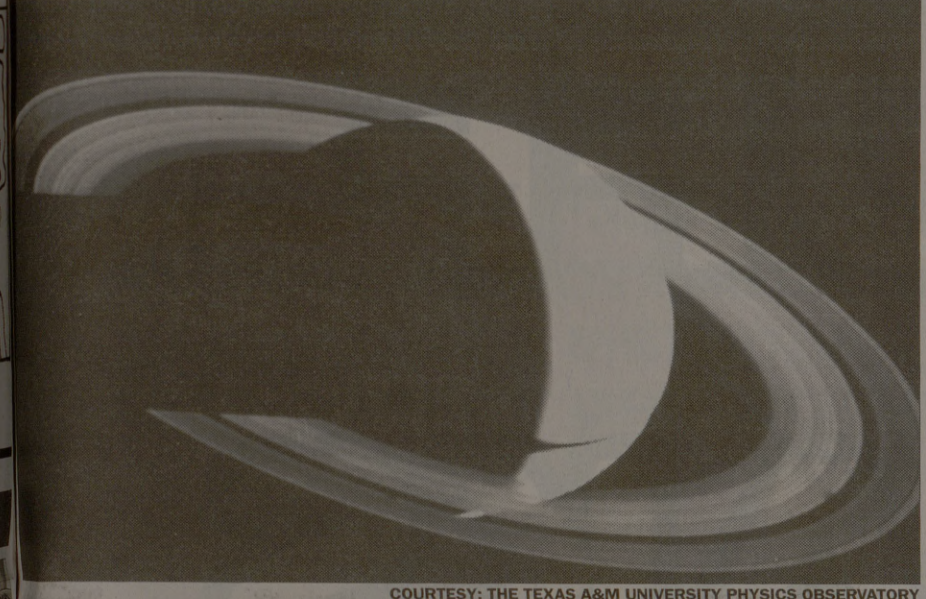
"I wanted to take a field trip to the observatory because I thought it would be nice for students to see the stars," Zaman said.

"Most are amazed by things you can see, especially when they see the moon or Saturn. Saturn is the most interesting because the students can see the rings."

Zaman said he noticed there is a lack of interest in science among children. He said the observatory helps spark an interest in astronomy among children.

The Physics Observatory is open to the public on the first Friday of every month.

For more information about tours and going to the observatory call the physics department at 845-7717.



COURTESY: THE TEXAS A&M UNIVERSITY PHYSICS OBSERVATORY  
The ringed planet Saturn is captured by the telescope at the TAMU Physics Observatory. The Physics Observatory was established in 1982 for observational astronomy classes.

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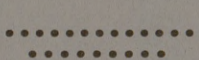
TUESDAY, NOVEMBER 18  
7 PM RUDDER 601

PANELISTS WILL INCLUDE:

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Nov. 19



12 noon

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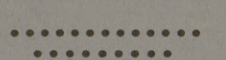
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Nov. 20



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