

Imagine loving a certain topic, but not being encouraged to study that topic because you are a woman. That is exactly what happened to Donna Shirley. Throughout Donna Shirley's life she was told "no," but she persevered and made a large impact on the NASA Mars exploration program.

Donna Shirley was born in Pauls Valley, Oklahoma, in 1941. Her parents, Edward and Ada Brooks Shirley, were of Chickasaw descent. Donna's interest in space exploration started when she read the book *The Sands of Mars* by Arthur C. Clarke. In high school, Shirley was the only girl who didn't take home economics, instead she took mechanical drawing. At age 15, Donna started taking flying lessons and at age 16 she got her pilot's license. When she decided to enroll in aeronautical engineering at the University of Oklahoma, her advisor told her, "Girls can't be engineers." She said, "Well yes I can." In 1965, Donna graduated from the University of Oklahoma with a Bachelor of Science degree in Aerospace and Mechanical Engineering.

In 1966, Donna went to California to work at the Jet Propulsion Lab (JPL). She also earned a Master of Science in Aerospace Engineering from the University of Southern California in 1968. Donna continued working at JPL and made the decision that she wanted to work her way to the top. She also learned how to deal with scientists, "They're very prickly and highly individualistic, trained to be argumentative... You have to be able to hang in there, not burst into tears."

She married a fellow JPL engineer and at the age of 35 she took 6 weeks off to have a baby. She became an advocate for better childcare because of her experience with the great nursery school JPL provided.

In 1992, Donna was assigned to lead development of a planetary rover that would explore Mars. In 1994, Donna was named the manager of the Mars Exploration Team, which made her the first woman to manage a NASA program. During her management, she oversaw the flight of Pathfinder and Sojourner to Mars in 1997. The success of this mission fulfilled Donna's dream of going to the red planet. In 1997, Donna got inducted into the Women in Technology International Hall of Fame, and in 1998 the Oklahoma Aviation and Space Hall of Fame. In 2001, she received NASA's Outstanding Leadership Medal and the National Space Society's Wernher Von Braun Memorial Award.

When Donna retired from NASA in 1998, she returned to the College of Engineering at OU and became the assistant dean. After all that she accomplished, she returned to OU where she was told, "girls can't be engineers." Donna Shirley is a role model for future engineers especially women engineers.