Spencer R. "Spence" Titley, professor emeritus of geosciences and a world-renowned geologist who trained Apollo space program astronauts in geology before their missions, died on Aug. 18 at the age of 90.

A native of Denver, Titley attended the Colorado School of Mines in Golden, Colorado, earning a degree in geological engineering in 1951. Among his first professional experiences in geology was work as an underground miner to help pay his tuition, according to a family obituary on the Department of Geosciences website.

Titley served with the U.S. Army during the Korean War beginning in 1952. He spent a year in Busan, South Korea, as a combat engineer, leading a platoon that maintained roads and built bridges in combat zones, his obituary says. He earned a Bronze Star for his service and was interviewed about his time in the Army in the PBS documentary "Unforgettable: The Korean War."

Titley came to the UA as a graduate student on the GI Bill and earned his doctorate in geology and chemistry in 1958. For the next two years, he worked for the New Jersey Zinc Co. in Arizona and New Mexico.

Titley joined the UA in 1960 as an assistant professor. His research focused on regional geography, geochemistry and isotope studies to understand the time and place of metal concentrations. He was a world authority on porphyry copper deposits in southwestern North America, and the publications he wrote and edited on the topic have been read by thousands of economic geologists.

In 1964, Titley worked with the U.S. Geological Survey to map the moon using the McMath-Pierce Solar Telescope at the Kitt Peak National Observatory for the Apollo program.

He also trained Apollo astronauts in the geology needed during their missions. Titley's trainees were Alan Shepard, Scott Carpenter, Wally Schirra, Gordon Cooper, Ed White, and Thomas Stafford.

In addition to being a world-renowned geologist, Titley mentored more than 130 graduate students during his time at the UA.

"Spence Titley is truly one of the most extraordinary economic geologists in the world," said College of Science Dean Joaquin Ruiz. "He also has a legacy of educating students so that they themselves have become leaders in their fields."
Karl Flessa, head of the Department of Geosciences, described Titley as "the foundation of the department" at a 2009 event commemorating Titley's 50 years at the UA, according to an obituary written by Titley's family.

"Field geology, planetary geology, economic geology, geochemistry? Spence has done it all," Flessa said. "And he's always had a keen eye for how geological insight could benefit society."

In 2003, Titley was named curator of what is now the UA Gem and Mineral Museum.


His teaching awards include the Career Distinguished Teaching Award from the College of Science, the Leicester and Kathryn Sherrill Creative Teaching Award from the UA Foundation, and the Department of Geosciences' Distinguished Faculty Member Award.

Titley is survived by his wife, Helen, son Ronald of Sydney, daughters Jane Titley and Jennifer Titley-Rubio, both of Tucson, grandchildren Alex Rubio and Isabelle Rubio, and numerous nieces and nephews.

A celebration of Titley's life was held on Sept. 16 in Tucson.

Source URL: https://uaatwork.arizona.edu/lqp/memoriam-spencer-r-spence-titley

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[1] https://www.geo.arizona.edu/Titley
[5] https://www.nae.edu/30900/Dr-Spencer-R-Titley