The FEWS minor integrates fundamentals of systems thinking into designing FEWS systems. MS trainees are expected to take 2 courses. PhD trainees are required to take the FEWS Minor, 4 courses. The FEWS minor is open to all UA students.

Research projects will develop sustainable, real-world solutions for off-grid production of safe drinking water, brine management operations, and controlled environment agriculture systems. Themes: innovative photovoltaics; holographics; sensors and controls; unit operation technologies; and material, device, and systems resiliency.

The FEWS minor integrates fundamentals of systems thinking into designing FEWS systems. MS trainees are expected to take 2 courses. PhD trainees are required to take the FEWS Minor, 4 courses. The FEWS minor is open to all UA students.

For More Information:
The Institute for Energy Solutions
The University of Arizona

energy.arizona.edu/indigefewss

NSF Award #DGE1735173
AREAS OF STUDY:
- Biosystems Eng.
- Chemical Eng.
- Chemistry
- Electrical Eng.
- Environmental Eng.
- Materials Science and Engineering
- Optics
- Soil, Water, & Enviro. Sciences

Goal: To develop a diverse workforce with intercultural awareness and FEWS expertise to address Food, Energy and Water challenges in indigenous communities

PROBLEM-SOLVING:
Developing technical solutions to food, energy and water challenges requires an understanding of indigenous societies, their governance and culture, and the ability to work effectively in these contexts.

CHALLENGE:
Worldwide, ~370 million indigenous people live in over 90 countries. Indigenous people are only approximately 5% of the world population, yet they represent 90% of cultural diversity and hold 20% of the land that maintains 80% of the world's remaining biodiversity. Indigenous people often lack access to energy, water, and food infrastructure.
- 14% of U.S. Native American households lack access to electricity.
- 35% of dwellings on the Navajo Nation are not connected to central power or potable water.

Training Components
- Cultural Immersion
- FEWS Research
- FEWS minor
- Major Courses
- Pilot Project
- Prof Development
- Internship

“Students will be co-learning alongside an indigenous community.”