



FHSU Department of Nursing Provides Critical Training in Western Kansas

Efforts to expand the number of highly-trained nursing professionals in rural Kansas will be aided by two grants from the Health Resources and Services Administration (HRSA) totaling more than \$4 million, awarded to FHSU's Department of Nursing. The grants include a 4-year Advanced Nursing Education Workforce Program (ANEW) grant for \$2,599,647 over four years and a 3-year \$1,499,793 Nurse Education, Practice, Quality and Retention (NEPQR) grant.

The HRSA Advanced Nursing Education Workforce (ANEW) grant aims to increase the number of healthcare providers in rural areas. Continuing education is essential to attaining this goal. Through the grant, the FHSU Nursing Department will host two skills workshops. These workshops will be offered free of charge, led by national presenters, and will allow those attending to refresh or learn different procedures commonly performed in primary care.

A portion of the Nurse Education, Practice, Quality, and Retention (NEPQR) Simulation Education Training (SET) grant is to provide, develop, or enhance academic-practice partnerships with a total of 10 community colleges, technical colleges, critical access hospitals, public health departments, and federally qualified health centers in western Kansas to increase patient outcomes by identifying critical skills gaps in rural and underserved areas. The Department of Nursing will develop a Stakeholder Advisory Board consisting of these partners to meet twice yearly to discuss critical skills gaps in nursing graduates.

Water Research at FHSU

As the only public university in western Kansas, FHSU is uniquely positioned to study the state's water resources. The benefits of water research in rural Kansas are numerous and far-reaching. By focusing on rural Kansas, FHSU contributes to understanding local communities' specific challenges regarding water availability, quality, and sustainability. This research can provide valuable insight and data-driven solutions to address issues of scarcity, contamination, and infrastructure limitations that disproportionately affect rural areas.

FHSU faculty in the Werth College of Science, Technology and Mathematics offer courses and conduct research on various water-related topics, from the study of weather with faculty in Geosciences to the health of the Kansas water systems with faculty from both Geosciences and Biological Sciences departments.

One such research project was recently conducted by three undergraduates under the supervision of Dr. Claudia Carvalho, Assistant Professor of Biology. These students examined wastewater samples from both Hays and Colby, searching for evidence of bacteria resistant to several antibiotics, including Meropenem, Oxacillin, Erythromycin, Doxycycline, Ciprofloxacin, and Clindamycin. These drugs were chosen as they are some of the most common antibiotics used to treat people and livestock. Preliminary results indicated high levels of resistance to several antibiotics compared to national averages, enough to warrant further study, which the students plan to continue throughout 2023 and into 2024.

Another multi-year study that recently concluded involved the FHSU Department of Geosciences partnering with the Kansas Department of Health and Environment (KDHE) to examine the quality of well water to determine the distribution and concentrations of Uranium and other water contaminants, including Arsenic, Selenium, Nitrate, Chloride, Iron, Manganese, Sulfate, and elevated electrical conductivity, often an indicator of polluted water in western Kansas.

The project was conducted over a two-and-a-half-year period, starting in January 2021 and ending in May 2023. During 2021, Prairie Dog Creek near Norton was the geographic area of focus, and in 2022, the study shifted to two other nearby creeks, Sappa Creek and Beaver Creek. While results from this study did not find any single contaminant across the area of study, one or more contaminants were found at elevated levels in nearly every sampled well.

Also, along the lines of water quality in Kansas, a study done in collaboration with the Kansas Department of Wildlife and Parks examined freshwater mussels (Family: Unionidae), as they are good indicators of water quality. The objective of this work was to develop an aquatic environmental DNA (eDNA) protocol that increases detection sensitivity of rare and endangered aquatic organisms in Kansas. The Cylindrical Papershell mussel (*Anodontoidea ferussacianus*) was listed as endangered in Kansas in 2019. This species was the focus of protocol development due to its contracting distribution, low population density, and historical presence in the Smoky Hill River just south of Hays, KS. This protocol, in conjunction with traditional sampling efforts, will aid in future monitoring and recovery plans of native aquatic species as we address the challenges of water quality and quantity in the region.

These are but a few of the many studies being carried out by FHSU faculty and students. A few of the other research projects currently underway include dye tracing of storm water drainage systems, microplastics concentrations in the water system, study of pH, Alkalinity, Conductivity, Salinity, and Dissolved Oxygen along Big Creek, and more.

Peter Laipson Selected to Lead Affiliation Initiative Implementation

Dr. Peter Laipson, a higher education executive with more than two decades of senior higher education leadership experience, was chosen from a nationwide pool of candidates to lead Fort Hays State University's, North Central Kansas Technical College's (NCK Tech), and Northwest Kansas Technical College's (Northwest Tech) strategic affiliation initiative.

As the Director of Strategic Affiliation, Laipson will coordinate the efforts of governance and implementation teams from the three institutions currently working to create robust, efficient, and cost-effective solutions that meet the key affiliation goals of delivering market-smart and highly accessible programs and unparalleled student services.

"I am eager to work with all three institutions to help move this initiative forward, and I am enthusiastic about the opportunities it will create for the students and communities of rural Kansas," Laipson said.

Laipson joins the Affiliation Initiative in time to guide the effort through its final major administrative milestone, securing the approval of the Higher Learning Commission (the accrediting body for all three institutions) of a Change of Control request that, once approved, will finalize the affiliation and permit the process of integrating academic programs and student services to commence.

Strategic Affiliation Initiative Timeline



Dr. Peter Laipson

