



## *HLC Accreditation Evidence*

- Life and Physical Science Laboratories

URL:

Office of Origin:

- Vice President of Instruction

Contact(s):

- Dean Academics

## **Life and Physical Science Laboratories**

### **Chemistry Laboratory**

In addition to a fully-equipped chemistry lab, the Chemistry and STEM instructors collaborate with faculty from Kansas peer institutions to implement a National Science Foundation project that expands the classroom to the field. Students will go out to the field to collect water-well samples and analyze those collected samples in the chemistry laboratory. The project aims to determine the effect of fertilizers on groundwater quality. The experiments allow the students to apply the concepts discussed in lectures. The students will use some chemistry laboratory equipment to perform the experiments.

### **Biology Laboratory**

Biology students in all formats (online, on the Great Bend Campus, and on the military bases) use a lab simulation program to perform experiments to learn concepts and how to apply the information in real-world scenarios.

Additionally, the students enrolled in biology on the Great Bend campus conduct authentic research as part of a Course (based) Undergraduate Research Experience (CURE). CUREs provide students with a more inclusive entry into scientific research than independent research opportunities. There is growing evidence that CUREs increase student retention in science majors and interest in pursuing a Ph.D. This is particularly important for students of underrepresented minority backgrounds.

As part of the CURE, biology students conduct ecology research at Cheyenne Bottoms Wetlands (designated a Ramsar Wetland of International Significance) and use cutting-edge biotechnology and bioinformatics techniques. The College will eventually include the CURE component in the military biology course offering and the Environmental Science Laboratory and Botany courses in the coming semesters.

### **Microbiology Laboratory**

A microbiology laboratory is devoted to the culturing, examining, and identifying of microorganisms, including bacteria, fungi, yeasts, etc. The microbiology laboratory is crucial in effective infection prevention and control (IPC).

The Anatomage Table is the most technologically advanced anatomy visualization system on the market. It is both a virtual library of human and animal cadavers and a clinical diagnostic tool by visualization of any Medical CT, CBCT, or MRI scan.