BIOLOGY, B.S. (BEHREND)

Begin Campus: Any Penn State Campus

End Campus: Erie

Program Learning Objectives

• **Apply Physical Laws**: Students will be able to apply physical laws to biological dynamics.

• **Apply Statistics**: Students will be able to apply statistical methods to diverse data.

• **Biological Structures**: Students will be able to articulate and explain for multiple levels of the biological hierarchy the physical and chemical characteristics of biological structures influence their function.

• **Chemistry**: Students will understand the relationship of the chemistry of molecules to biological systems.

• **Communicate**: Students will be able to communicate ideas and results of experiments and research effectively both orally and in writing.

• **Data Visualization**: Students will be able to develop and interpret graphs.

• **Design**: Students will be able to design scientific processes to understand living systems.

• **Develop Biological Applications**: Students will be able to develop biological applications to solve societal problems.

• **Energy and Matter**: Students will be able to articulate and explain for multiple levels of the biological hierarchy that organisms captures and transform energy and matter.

• **Evolution**: Students will be able to articulate and explain for multiple levels of the biological hierarchy that evolution explains the diversity and unity of life.

• **Literature**: Students will be able to search for, acquire, and interpret original scientific literature.

• **Model**: Students will be able to computationally model dynamic systems.

• **Organisms**: Students will be able to articulate and explain for multiple levels of the biological hierarchy that organisms store and process information.

• **Systems**: Students will be able to articulate and explain for multiple levels of the biological hierarchy that biological systems are complex and hierarchical.