At the end of the foundation sequence (BIOL 111, BIOL 112, BIOL 211) students demonstrate the ability to apply knowledge of the core concepts and competencies in biology to classify, explain and interpret biological phenomena. Core concepts include the biology of the cell, biochemistry, molecular biology, genetics, developmental biology of multicellular organisms, physiology of multicellular organisms, anatomy of animals, anatomy of plants, evolution, ecology, conservation biology, population biology, and biodiversity. Core competencies include the ability to interpret experimental and observational data regarding the core concepts.

Students who have completed the Biology BS will have continued beyond the foundation sequence, completed a genetics lecture course, and additional lecture and laboratory classes within biology. Additional coursework in chemistry, mathematics and physics will have been completed. The Biology BS degree is a more rigorous degree than the Biology BA, and includes additional coursework, lab work and additional classes in chemistry, physics and mathematics.

At the end of the program Biology BS majors demonstrate additional improvement in their ability to apply knowledge of the core concepts and competencies of biology to classify, explain and interpret biological phenomena.

Core concepts include the biology of the cell, biochemistry, molecular biology, genetics, developmental biology of multicellular organisms, physiology of multicellular organisms, anatomy of animals, anatomy of plants, evolution, ecology, conservation biology, population biology, and biodiversity. Core competencies include the ability to interpret experimental and observational data regarding the core concepts.

Improvements in core competencies and understanding core concepts will result in students that have performances on standardized exams surpassing the 70th percentile of graduating seniors across the United States. Students completing the program will indicate that they have had a satisfactory education in the biological sciences.