

**Fall 2025**

**Course Preview Week:** August 26 - September 01, 2025

**Semester Dates:** September 02 - December 12, 2025

**ABT 720 Experimental Design and Analysis in Biotechnology\*** **3 Credits**

Principles of descriptive and inferential statistics with applications in biotechnology including experimental design, quantitative data analysis, and bioinformatic evaluation of complex molecular and biological data sets.

[ABT 720 course syllabus](#)

**ABT 730 Python for Bioinformatics** **3 Credits**

Learn diverse strategies for computational analysis of macromolecular data using Python, including sequence alignment, genome annotation, data retrieval, phylogenetic analysis, and molecular evolution. Experiential learning is emphasized; confidence in practical skills is developed through persistent application of course content to projects focused on current problems in bioinformatic research.

[ABT 730 course syllabus](#)

**ABT 785 Applications of Bioinformatics** **3 Credits**

Explore and apply existing bioinformatic tools, including implementation of pre-coded solutions to data acquisition, wrangling, analysis, visualization, and structural modeling problems. Students will complete a final project that generates a multi-system workflow to solve bioinformatic problems.

*Prerequisites:* ABT 720, ABT 730

[ABT 785 course syllabus](#)