



ARKANSAS TECH  
UNIVERSITY

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## Program Learning Outcomes

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<i>College/School</i>	Natural & Health Sciences
<i>Department</i>	Applied Statistics
<i>Program</i>	Bachelor of Science w/ Actuarial Science or Computer Science Option

*Link to Program Home*

<https://www.atu.edu/mathematics/sturln-appliedstatistics.php>

*Students who complete the program will:*

1. Demonstrate competence with mathematical skills need for statistics, including calculus foundations, linear algebra, symbolic and abstract thinking
2. Demonstrate understanding of the fundamentals of probability and statistical theory
3. Have good understanding of exploratory data analysis, basic statistical inference, and limitations of the procedures
4. Demonstrate knowledge of efficient design and analysis of experiments for standard situations
5. Be able to apply appropriate statistical modeling tools to analyze data, interpret the results with proper scope of conclusions.
6. Understand the basic programming algorithms and logic
7. Implement professional statistical computing and demonstrate competence in database management
8. Be able to explain statistical ideas, methods, and results effectively to statistical and non-statistical audiences
9. Demonstrate knowledge of fundamental probability tools for quantitatively assessing risk and basic financial mathematics

10. Be able to implement various statistical tools for quality monitoring commonly used in industry.