

**University of Arkansas – Fort Smith**  
**5210 Grand Avenue**  
**P. O. Box 3649**  
**Fort Smith, AR 72913–3649**  
**479-788-7000**

**General Syllabus**

**STAT 4854V Statistics Independent Study**

Credit Hours: 1-3 Variable      Independent Study 1-3 Variable

Prerequisite: consent of department head

Effective Catalog: 2018~2019

**I. Course Information**

**A. Catalog Description**

Current advanced topics in Statistics are explored by students through faculty-guided independent study. Topics are selected based on faculty research specialization and student interest.

**B. Additional Information - None**

**II. Student Learning Outcomes**

**A. Subject Matter**

Upon completion of this course, the student will have demonstrated the ability to:

1. State a problem in statistics.
2. Independently identify, collect and understand information relevant to the solution of the problem.
3. Independently experiment with examples and compare similar situations and conjecture a solution to the problem.
4. Rigorously prove the validity of the conjectured solution.
5. Effectively communicate the problem and results to a general and mathematical audience.

**B. University Learning Outcomes**

This course enhances student abilities in the following areas:

**Global and Cultural Perspectives**

Students will demonstrate the understanding or application of Statistics in a global environment. Students will demonstrate how Statistics impacts or is impacted by those of different cultures.

**Communication Skills (written and oral)**

Students will communicate statistics effectively with a variety of audiences in any setting. Students will compose coherent statistics documents appropriate to the intended audience. Students will effectively communicate Statistics topics orally in a public setting.

**Analytical Skills**

**Critical Thinking Skills:** Students will draw conclusions and/or solve statistics problems. Students will access and evaluate appropriate information through written and electronic means. Students will think critically to reach viable solutions to a problem and be able to justify those solutions.

**Quantitative Reasoning:** Students will assign and use numbers, read and analyze data, create models, draw inferences, and support conclusions based on sound mathematical and statistical reasoning. Students will apply appropriate statistical models to solve problems. Students will represent mathematical information symbolically, visually, numerically and verbally, and be able to interpret models and data in order to draw inferences.

**Ethical Decision Making**

Students will recognize and analyze ethical dilemmas as they relate to science. Students will apply ethical concepts and rules to determine viable alternatives in any given situation.

**III. Major Course Topics**

Course topics are dependent on each offering because faculty with different specialties will teach the course with interested students. The faculty member responsible for the course will determine the topic and points of emphasis of the given offering.