| **PROFESSOR:** |   |
| --- | --- |
| **OFFICE LOCATION:** |   |
| **OFFICE HOURS:** |   |
| **PHONE NUMBER:** |   |
| **E-MAIL:** |   |
| **SEMESTER:** |   |
| **DELIVERY METHOD:** |   |

# COURSE NUMBER AND TITLE, CATALOG DESCRIPTION, CREDITS:

## STA 2023 Statistical Methods (3 Credits)

This is an introductory course covering the fundamental topics of statistics. Topics include: descriptive measures, probability, probability distributions, central limit theorem, sampling distributions, confidence intervals, hypothesis testing, correlation, regression analysis and non-parametric test procedures. If completed with a grade of “C” or better, this course serves to demonstrate competence in the general education mathematics requirement.

## PREREQUISITES FOR THIS COURSE:

(SB 1720 exemption AND high school statistics course with a “B” or better), or testing, or [MAT 1100 or MAT 1033 or MGF 1106 or MGF 1113] with a “C” or better, or [MAC 1105 (or higher) with a “C” or better].

### CO-REQUISITES FOR THIS COURSE:

## GENERAL COURSE INFORMATION:

Topic Outline

Probability

Random variables

Hypothesis testing

Confidence interval estimation

Small sample methods

Correlation

Simple linear regression

Nonparametric statistics

## ALL COURSES AT FLORIDA SOUTHWESTERN STATE COLLEGE CONTRIBUTE TO THE GENERAL EDUCATION PROGRAM BY MEETING ONE OR MORE OF THE FOLLOWING GENERAL EDUCATION COMPETENCIES:

**C**ommunicate clearly in a variety of modes and media.

**R**esearch and examine academic and non-academic information, resources, and evidence.

**E**valuate and utilize mathematical principles, technology, scientific and quantitative data.

**A**nalyze and create individual and collaborative works of art, literature, and performance.

**T**hink critically about questions to yield meaning and value.

**I**nvestigate and engage in the transdisciplinary applications of research, learning, and knowledge.

**V**isualize and engage the world from different historical, social, religious, and cultural approaches.

**E**ngage meanings of active citizenship in one’s community, nation, and the world.

A. General Education Competencies and Course Outcomes

1. Listed here are the outcomes/objectives assessed in this course which play an integral part in the student’s general education along with the general education competency they support.

 General Education Competency: Evaluate

Course Outcomes or Objectives Supporting the General Education Competency Selected:

Select an appropriate distribution model to calculate the probability of an event.

Quantify and analyze the components of correlation and regression analysis.

2. Listed here are the outcomes/objectives assessed in this course which play a supplemental role in the student’s general education along with the general education competency they support.

General Education Competency: Communicate

Course Outcomes or Objectives Supporting the General Education Competency Selected:

Apply basic rules of probability and explain how probability is used to make statistical inferences.

Conduct appropriate hypothesis tests to answer research questions about real-world situations and discuss the implications of the results.

B. In accordance with Florida Statute 1007.25 concerning the state’s general education core course requirements, this course meets the general education competencies for mathematics.

Students will determine appropriate mathematical and computational models and methods in

Problem-solving, and demonstrate an understanding of mathematical concepts.

Students will apply appropriate mathematical and computational models and methods in problem-solving.

C. Other Course Objectives/Standards

Define and use the basic terminology of statistics.

Organize, display, analyze, and/or compare different sets of data using graphs, charts, tables, or numerical measures.

Calculate and interpret the various descriptive measures of central tendency, dispersion, and relative position.

Describe the sampling distributions of population parameters.

Construct confidence intervals to estimate population parameters.

Understand and apply the basic principles of non-parametric tests

## DISTRICT-WIDE POLICIES:

### PROGRAMS FOR STUDENTS WITH DISABILITIES

Florida SouthWestern State College, in accordance with the Americans with Disabilities Act and the College’s guiding principles, offers students with documented disabilities programs to equalize access to the educational process. Students needing to request an accommodation in this class due to a disability, or who suspect that their academic performance is affected by a disability should contact the Office of Adaptive Services at the nearest campus. The office locations and telephone numbers for the Office of Adaptive Services at each campus can be found at <https://www.fsw.edu/adaptiveservices>.

### REPORTING TITLE IX VIOLATIONS

Florida SouthWestern State College, in accordance with Title IX and the Violence Against Women Act, has established a set of procedures for reporting and investigating Title IX violations including sexual misconduct. Students who need to report an incident or need to receive support regarding an incident should contact the Equity Officer at equity@fsw.edu. Incoming students are encouraged to participate in the Sexual Violence Prevention training offered online. Additional information and resources can be found on the College’s website at <https://www.fsw.edu/sexualassault>.

## REQUIREMENTS FOR THE STUDENTS:

List specific course assessments such as class participation, tests, homework assignments, make-up procedures, etc.

## ATTENDANCE POLICY:

The professor’s specific policy concerning absence. (The College policy on attendance is in the Catalog and defers to the professor.)

## GRADING POLICY:

Include numerical ranges for letter grades; the following is a range commonly used by many faculty:

| **Grade Percent** | **Letter Grade** |
| --- | --- |
| 90 - 100 | A |
| 80 - 89 | B |
| 70 - 79 | C |
| 60 - 69 | D |
| Below 60 | F |

(Note: The “incomplete” grade [“I”] should be given only when unusual circumstances warrant. An “incomplete” is not a substitute for a “D,” “F,” or “W.” Refer to the policy on “incomplete grades.)

## REQUIRED COURSE MATERIALS:

(In correct bibliographic format.)

## RESERVED MATERIALS FOR THE COURSE:

Other special learning resources.

## CLASS SCHEDULE:

This section includes assignments for each class meeting or unit, along with scheduled Library activities and other scheduled support, including scheduled tests.

## ANY OTHER INFORMATION OR CLASS PROCEDURES OR POLICIES:

(Which would be useful to the students in the class.)