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

# COURSE NUMBER AND TITLE, CATALOG DESCRIPTION, CREDITS:

## MAT 1100 Mathematical Literacy for College Students (4 Credits)

This course reinforces elementary algebra and quantitative reasoning skills and introduces basic statistical concepts through data analysis in preparation for college-level statistics and liberal arts mathematics. Topics include, but are not limited to, ratios, proportions, scaling, dimensional analysis, modeling with equations and inequalities, tables, graphs, linear functions, and exponential functions. Written and verbal communication skills will be emphasized along with critical thinking. Students who complete this course will be prepared to enroll in STA 2023, MGF 1106 and/or MGF 1107. However, students who have completed this course are not eligible to enroll in MAC 1105 without meeting other prerequisites.

## PREREQUISITES FOR THIS COURSE:

MAT 0028 or MAT 0057 or MAT 0058 (all with a minimum grade of “C”) or Testing or SB 1720 Exemption

### CO-REQUISITES FOR THIS COURSE:

None

## GENERAL COURSE INFORMATION:

Topic Outline

Number Sense and Estimation Skills

Ratios, Proportions and Scaling

Algebraic Modeling with Equations and Inequalities

Data Exploration with Tables

Basic Elements of Graphing

Basic Elements of Linear and Exponential Functions

Basic Elements of Measures of Central Tendency and Dispersion

Basic Elements of Correlation and Regression

## 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:

Create and utilize mathematical models to investigate, represent, and solve problems using the language and structure of algebra

Estimate, calculate and interpret the slope of linear functions represented in tables, graphs and equations

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:

Investigate and summarize patterns exhibited in various graphs using both prose and mathematical languageB. Other Course Objectives/Standards

Apply the order of operations and commutative, associative, and distributive properties on real numbers

Recognize and estimate reasonable solutions to a problem utilizing various representations of rational numbers

Solve problems requiring the use of ratios, proportions, scaling and unit conversions

Create and utilize mathematical models to investigate, represent, and solve problems using the language and structure of algebra

Select or create an appropriate model to solve problems involving personal finance

Solve applications involving linear equations and linear inequalities

Solve a formula for a given variable

Analyze data recorded in tables

Construct graphs that appropriately reflect data, equations and/or functions

Investigate and summarize patterns exhibited in various graphs using both prose and mathematical language

Compare and contrast linear, quadratic and exponential functions

Estimate, calculate and interpret the slope of linear functions represented in tables, graphs and equations

Select and apply an appropriate technique for solving quadratic equations using factoring, the quadratic formula or the zero (root) feature of a graphing calculator

Select and apply an appropriate method for solving systems of linear equations in two variables

Evaluate functions for specified values of the domain

Construct a Venn diagram based on, at most, two sets

Solve problems involving basic concepts of counting methods

Solve problems involving basic concepts of empirical and classical probability

Calculate and interpret statistical measures of central tendency and dispersion

## 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](mailto: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.)