Math 1101
Departmental Course Syllabus

The following are the core objectives for this course that are assessed at the University level.
<u>VSU General Education Outcomes:</u>

<u>Area A2</u>: Students will demonstrate mathematical proficiency by analyzing a variety of functions and solving various equations

<u>Critical Thinking:</u> Students will identify, evaluate, and apply appropriate models, concepts, or principles to issues, and they will produce viable solutions or make relevant inferences.

Topics & Suggested Pacing Guide --- (Not including Testing & Review)

<u>Course Outline:</u> (based on 45 sessions, 3 days per week)

Chapter/Section	Topics	Suggested Days
P, 1.1, 1.2, 1.3, 1.4	Calculator Arithmetic Functions Given by Formulas Functions Given by tables Functions Given by Graphs Functions Given by Words	7 - 8
2.1, 2.2, 2.3, 2.4, 2.5, 2.6	Tables and Trends Graphs Solving Linear Equations Solving Nonlinear Equations Inequalities Optimization	9 - 10
3.1, 3.2, 3.3, 3.4, 3.5	The Geometry of Lines Linear Functions Modeling data with Linear Functions Linear Regression Systems of Equations	8 - 9
4.1, 4.2, 4.3, 4.4, 4.5	Exponential Growth and Decay Constant Percentage Change Modeling Exponential Data Modeling Nearly Exponential Data Logarithmic Functions	6 - 7
5.5, *(5.2 & 5.3 optional)*	Polynomials and Rational Functions Power Functions (optional) Modeling Data with Power Functions (optional)	3 - 5

Math 1101 – Intro Mathematical Modeling
3 Credit Hours Nevins Hall
Mathematics Department
Valdosta State University

Required Text: Functions and Change: A Modeling Approach to College Algebra (5th Edition) by Crauder, Evans, and Noell. Book may not be current – see your instructor

Course Description: Math 1101 is a study of algebraic topics from a modeling perspective including Introduction to different types of models including linear, quadratic, polynomial, exponential, and logarithmic. Its emphasis is on gathering, presentation, and interpretation of data by using real-world examples as models.

Student Learning Outcomes:

Upon completion of this course, students will be able to:

1. Represent quantitative relationships from a variety of applications using appropriate mathematical models, and use such models to solve real-world problems (goal #5);
2. Extract, express, manipulate, and evaluate quantitative information in algebraic, graphical, numeric, and verbal form (goal #4 and #7);
3. Use appropriate technology to manipulate and evaluate quantitative information (goal #3).

Grading Scale: A(90-100) B(80-89.99) C(70-79.99) D(60-69.99) F(59 and below)

Attendance & Tardiness : Attendance is expected. A student who misses more than 20% of the classes will be subject to receiving a failing grade in the course.

Accommodations Statement: Students with disabilities who are experiencing barriers in this course may contact the Access Office for assistance in determining and implementing reasonable accommodations. The Access Office is located in Farbar Hall. The phone numbers are 229-245-2498 (V), 229-375-5871 (VP) and 229-219-1348 (TTY). For more information, please visit VSU's Access Office or email: access@valdosta.edu.

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Student Success Center: The Student Success Center: The Student Success Center (SSC) provides free peer tutoring in core courses, the top four of which are math, writing, Spanish, and biology/chemistry. It also offers time management and study skills workshops as well as provides free professional academic advising and on-campus job information in one location: Langdale Residence Hall. Help is available to all VSU students. Call 333-7570 to make an appointment, or visit the website: www.valdosta.edu/ssc.