**Grading Procedure:** Points obtained on unit exams, problem sets, quizzes, and the final exam will determine the final grade in this course. There is NO extra credit.

The grading scale is as follows: 90-100% for A, 80-89% for a B, 70-79% for a C; 55-69% for a D, and 54% and below is Fail.

The points will be distributed as follows:

- **Unit exams** – 100 points possible for each exam (about 60% of final grade)
  - All exams, to be completed in a bluebook, will be closed book. There is no makeup given on a missed exam; however, an exam may be taken earlier if student anticipates being absent on a scheduled exam date. If an exam (only one exam is allowed) should be missed, the percentage score from the final exam will be used in place of the missing score; any other exam missed after that will receive a score of zero.
- **Quizzes** – 4 to 6 points possible on each and will be given at instructor’s discretion. No makeup on missed quizzes.
- **Homework** – 3 to 8 points possible for each problem set. The problem set will consist of all assignments for a chapter and will generally be turned in on the day of the exam (unless otherwise indicated). On the average, a minimum of two hours should be spent on homework for each lecture hour. Not turning in homework could result in a student’s final grade being lowered by one grade. (Quizzes & homework will be approximately 10% of final grade)
- **Final exam** – about 30% of final grade

**Text:** Sullivan, Michael & Sullivan, Michael III; *College Algebra: Concepts Through Functions*, 3rd edition, Pearson, 2015

**Calculator:** A non-graphing scientific calculator will be permitted on most exams and quizzes.

**Attendance:** It is absolutely imperative that students are in class everyday that the class meets. Three unexcused absences will put a student in jeopardy of being dropped from the class. It is the student’s responsibility to be aware of withdrawal dates and to take the appropriate necessary steps.

**Academic Honesty:** All students are expected to abide by the *Code of Academic Conduct and Reporting Policy*; that is, students will turn in their own work (homework, exams, and quizzes). Any student caught cheating, in addition, to receiving a grade of zero on his/her work, will be in danger of being dropped from the class as well as have a Dishonesty Report placed in his/her academic file.

**Course Content:**

<table>
<thead>
<tr>
<th>Term</th>
<th>Percentage of</th>
<th>Topics</th>
</tr>
</thead>
<tbody>
<tr>
<td>7%</td>
<td>Review of Equations and Inequalities</td>
<td></td>
</tr>
<tr>
<td>24%</td>
<td>Functions, Modeling with Functions, Graphing Techniques, Graphing Functions</td>
<td></td>
</tr>
<tr>
<td>34%</td>
<td>Polynomials, Rational Function, Modeling, Graphing Rational &amp; Rational Functions</td>
<td></td>
</tr>
<tr>
<td>25%</td>
<td>Exponential &amp; Logarithmic Functions, Models, Graphing</td>
<td></td>
</tr>
<tr>
<td>10%</td>
<td>Geometric Sequences &amp; Series, Rational Exponents, Review for final exam</td>
<td></td>
</tr>
</tbody>
</table>

**Prerequisite Skills:** To ensure that a student will have the most successful experience in this class, it will be assumed that the student can (prior to enrolling in Math 26) perform with reasonable accuracy all of the following:

- Perform all routine elementary algebraic operations with accuracy.
- Solve linear and quadratic equations/inequalities involving one variable and express the answer in interval notation.
- Perform fundamental operations on polynomials and rational expressions.
- Solve application problems using equations.
- Find domain of functions.
- Perform fundamental operations on functions.
- Graph linear, quadratic, and absolute value functions.
- Demonstrate the relationship between exponential and logarithmic functions.
- Solve elementary exponential and logarithmic equations.
- Solve polynomial equations by factoring.
Exit Skills: In order to pass this course, students must be able to do all of the following:

- Construct the function or equation that best models the description of a mathematical or practical situation.
- Analyze a functional model to determine information relevant to an application.
- Solve specific problems relating to, but not limited to, compound interest, supply and demand, cost, maximizing revenue and profit, and exponential growth/decay.
- Solve polynomial, rational, radical, exponential, and logarithmic equations.
- Use the language and notation of the algebra of functions, including algebraic combinations and compositions.
- Use interval and set-builder notation to state the domain and range of functions.
- Use algebraic principles of graphing including translations, reflections, expansions, and contractions.
- Graph polynomial, absolute value, rational, radical, exponential, logarithmic, and piecewise-defined functions without the aid of graphing devices. Graphs must include any intercepts, holes, & asymptotes.
- Solve polynomial and rational inequalities in one variable.
- Evaluate, manipulate and interpret summation notation using properties of sequences.
- Use geometric sequences and series and related formulas to solve problems relating to, but not limited to, annuities.
- Use a scientific calculator to support computation for application problems.
- Given an algebraic expression with rational exponents, rewrite it in simplest form as a product or quotient in which only positive exponents occur.

Student Learning Outcomes:

- Given an algebraic function, students will analyze the function and create a graph that includes intercepts, asymptotes (if any exists), and approximate maximum and/or minimum values.
- Given the description of a practical situation such as compound interest, supply and demand, cost, maximizing revenue and profit, or exponential growth/decay, define a function that models the situation and analyze this function to obtain relevant information.

Hints for success in this class:

- Attend class regularly. Keep track of your scores on homework, quizzes, & exams so that you will be aware of your approximate grade at all times.
- Be an active participant in the class. Take good notes and ask questions.
- Read the next section before coming to class.
- Do homework as it is assigned. Try to be neat, accurate, and well organized.
- Get to know others in the class. These friends make good study partners, someone to call when you are absent, or just someone who can provide moral support when you are experiencing difficulties.
- Take advantage of instructor’s office hours as well as instructional assistants and tutors in the Math Lab (Math Complex 84).
- Prepare for your exams in a timely manner—do homework as it is scheduled so that you will have time before the exam to work on chapter reviews and/or reviews provided by the instructor (to be downloaded from the instructor’s website).
- And most importantly—DO NOT GIVE UP! It takes time for some concepts to make sense. The important thing is to hang in there, get help, and work on it until you get it right.