

Course SLOs

<p>Math 13 – Introduction to Statistics</p> <ol style="list-style-type: none">1. Interpret measures of central tendency, variation, and position of data sets2. Compute and interpret probabilities using normal and t-distributions.3. Analyze hypothesis tests.	<p>Math 2 – Pre-Calculus w/ analytic</p> <ol style="list-style-type: none">1. Apply transformations to the graphs of functions and relations;2. Recognize the relationship between functions and their inverses graphically and algebraically;3. Analyze real world applications
<p>Math 201 – Elementary Algebra</p> <ol style="list-style-type: none">1. Solve linear equations involving two variables2. Analyze real world applications.3. Represent linear relationships between two variables graphically, numerically, symbolically, and verbally.	<p>Math 203 – Intermediate Algebra</p> <ol style="list-style-type: none">1. Analyze real world applications.2. Solve quadratic, radical, rational, and absolute value equations.3. Represent linear relationships between two variables graphically, numerically, symbolically, and verbally.4. Apply Logarithmic and Exponent Rules to simplify expressions.
<p>Math 250 - Arithmetic</p> <ol style="list-style-type: none">1. Apply order of operations to simplify and evaluate expressions2. Understand and use fractions, decimals, and percentages3. Analyze real world problems	<p>Math 253 – Pre-Algebra</p> <ol style="list-style-type: none">1. Apply order of operations to simplify and evaluate expressions2. Understand and use fractions, decimals, and percentages3. Analyze real world problems4. Solve one-variable linear equations
<p>Math 3A – Calculus I</p> <ol style="list-style-type: none">1. Evaluate derivatives and integrals using the Chain Rule2. Recognize relationship between derivatives and integrals through the Fundamental Theorem of Calculus3. Analyze rates of change as derivatives	<p>Math 3B – Calculus II</p> <ol style="list-style-type: none">1. Use integration by parts and partial fraction decomposition2. Analyze real world applications using Taylor polynomials.3. Formulate integrals for lengths of curves, areas, and volumes.

Math 3C – Calculus III

1. Develop problem solving abilities: Synthesize data, translate words into math language, and construct an abstract model that describes the problem.
2. Given data, students will analyze information, and create a graph that is correctly titled and labeled, appropriately designed, and accurately emphasizes the most important data content.
3. Students will be to write and manipulate complex algebraic expressions and general functions and integrate algebraic and transcendental functions of several variables.

Math 3E – Linear Algebra

1. Solve systems of equations using various methods appropriate to lower division linear algebra.
2. Calculate the dimensions of subspaces associated with linear transformations.
3. Analyze real world applications involving eigenvectors and eigenvalues.

Math 3F – Differential Equations*

- Phase plane analysis, Trajectories (linear systems at the end of course)
- Solving first-order separable equations and second-order linear homogeneous constant coefficient
- Equilibrium solutions and stability

Math 50- Trigonometry

1. Compute values of the six basic trigonometric functions
2. Graph and apply transformations to the six basic trigonometric functions
3. Analyze real world applications

Math 202 – Geometry

1. Draw and label figures using spatial reasoning and symmetry.
2. Write the converse, inverse, and contrapositive of basic logical statements.
3. Analyze real world applications

Math 225 – Math for Technicians*

1. Manipulate algebraic expressions to simplify them.
2. Develop problem solving abilities: Synthesize data, translate words into math language, and construct an abstract model that describes the problem.
3. Given data, analyze information, and create a graph that is correctly titled and labeled, appropriately designed, and accurately emphasizes the most important data content.

<p>Math 206 – Algebra For Statistics (relook)</p> <ol style="list-style-type: none"> 1. Formulate questions that can be addressed with data, then collect, organize, display, and analyze relevant data to address these questions and communicate findings. 2. Use the properties of algebra to simplify expressions, solve equations and answer questions in context. 3. Apply numerical, algebraic and geometric reasoning skills to statistical analysis. 4. Construct, use, and interpret mathematical models, including linear and exponential functions, that represent relationships in quantitative data. 5. (introduction to probability) 	<p>Math 213 – Support for Statistics</p> <ol style="list-style-type: none"> 1. Interpret measures of central tendency, variation, and position of data sets 2. Compute and interpret probabilities using normal and t-distributions. 3. Analyze hypothesis tests.
<p>Math 1 – Pre-calculus</p> <ol style="list-style-type: none"> 1. Apply transformations to the graphs of functions and relations; 2. Recognize the relationship between functions and their inverses graphically and algebraically; 3. Analyze real world applications 	<p>Math 15 - Math for Liberal Arts**</p> <ol style="list-style-type: none"> 1. Compute, with sophisticated formulas, such quantities as interest payments for amortized loans. 2. Given data, students will analyze information, and create a graph that is correctly titled and labeled, appropriately designed, and accurately emphasizes the most important data content. (Graphing) 3. Students will be to write and manipulate complex algebraic expressions and general functions, and be able to differentiate and integrate algebraic and transcendental functions. (Compute, Simplify, and Solve)

<p>Math 11 – Discrete Mathematics**</p> <ol style="list-style-type: none"> 1. Develop problem-solving abilities: Synthesize data, translate words into math language, and construct an abstract model that describes the problem. 2. Given data, students will analyze information, and create a graph that is correctly titled and labeled, appropriately designed, and accurately emphasizes the most important data content. (Graphing) 3. Students will be to write and manipulate complex algebraic expressions and general functions, and be able to differentiate and integrate algebraic and transcendental functions. (Compute, Simplify, and Solve) 	<p>Math 230</p> <ol style="list-style-type: none"> 1. Solve equations (linear and non-linear) involving at least two of the following: fractions, decimals, parentheses, and like terms for a variable. Non-linear equations include quadratic, exponential, logarithmic, absolute value, radical, rational, etc. 2. Formulate a model (either linear or quadratic or exponential) of a real world application. Interpret the key characteristics of the graph (slope, y-intercept, vertex, intercepts, maximum value, minimum value, asymptotes etc.) in the context of the application. 3. Create a linear graph based on given attributes of a line (e.g., two points, slope and point, slope and y-intercept, etc). Identify key characteristics of a given linear graph (e.g. slope, y-intercept, x-intercept, etc). (NOTE: include scaling, table, define variables, etc).
<p>Math 16A</p> <ol style="list-style-type: none"> 1. Develop problem solving abilities: Synthesize data, translate words into math language, and construct an abstract model that describes the problem 2. Analyze information, and create a graph that is correctly titled and labeled, appropriately designed, and accurately emphasizes the most important data content (Graphing) 3. Write and manipulate complex algebraic expressions and general functions, and be able to differentiate and integrate algebraic and transcendental functions. (Compute, simplify, and solve) 	

* denotes will revisit until the class is taught

** denotes class has not been taught