- SLO 1: Analyze and investigate properties of functions.
- Synthesize connections between equations of functions and their graphs.
- Apply transformations to the graphs of functions and relations.
- Recognize the relationship between functions and their inverses graphically and algebraically.
- Apply functions to model real world applications.
- SLO 2: Apply solution techniques to equations and interpret results.
- Solve and apply equations including rational, linear, polynomial, exponential, absolute value, radical, logarithmic, and trigonometric, and solve linear, nonlinear, and absolute value inequalities.
- Solve systems of equations and inequalities.
- Apply techniques for determining zeros of polynomials and roots of equations.
- SLO 3: Analyze conic sections.
- Construct an algebraic representation of the equation of a conic from a graph.
- Distinguish the differences between algebraic representations of conic sections.
- Accurately graph the equation of a given conic section.
- SLO 4:

- Investigate arithmetic and geometric sequences.
- Use formulas to find the sum of both finite and infinite series.
- SLO 5: Investigate angular measure and trigonometric functions.
- Identify special triangles and their related angle and side measures.
- Evaluate the trigonometric function of angles in degree and radian measure.
- Manipulate and simplify trigonometric expressions.
- Calculate powers and roots of complex numbers using DeMoivre's Theorem.
- SLO 6: Graph trigonometric functions and use identities to solve trigonometric equations.
- Solve trigonometric equations, triangles, and applications.
- Graph the basic trigonometric functions and apply changes in period, phase and amplitude to generate new graphs.
- Evaluate and graph inverse trigonometric functions.
- SLO 7: Use trigonometric identities.
- Prove trigonometric identities.
- Use trigonometric identities to graph trigonometric functions.
- Implement the use of trigonometric identities to solve trigonometric equations.
- SLO 8: Graph polar functions and parametric curves.
- Graph basic parametric curves with proper paths of travel by plotting points or eliminating parameters.
- Convert between polar and rectangular coordinates and equations.
- Graph polar equations.
- SLO 9: Use trigonometric functions in applications.
- Investigate arc length, linear velocity, and angular velocity.
- Represent a vector (a quantity with magnitude and direction) in the form and ai + bj.
- Build and solve applications using sinusoidal models.