Bold-type indicates core outcome

Group L: Limit Outcomes (I can calculate, use, and explain the concept of limits.)

- **L.1: I can find both one-sided and two-sided limits of a function (or determine they do not exist) at a point using graphical and algebraic methods and interpret the meaning of my answer. (2.2/2.3)**
- L2: I can evaluate both infinite limits and limits at infinity, distinguish between them, and use them to find asymptotes. (2.4, 2.5)
- L3: I can determine whether an elementary or piecewise-defined function is continuous at a point algebraically and/or graphically; Additionally, I can use continuity to evaluate limits. (2.6)
- L4: I can identify limits in indeterminate form and correctly apply L'Hópital's Rule to evaluate them. (4.7)

Group M: Meaning of the Derivative (I can explain and interpret the meaning of the derivative.)

- **M1: I can compute the derivative of a function, both at a point and as a function, using the limit definition. Additionally, I can graphically and/or algebraically recognize points at which a function is (and is not) differentiable and can use the definition or interpretation of the derivative to support my thinking (3.1, 3.2).**
- M2: I can match the graph of the derivative of a function to the graph of the function (3.2).

Group D: Derivative Rules (I can use differentiation rules to correctly calculate derivatives.)

- D1: I can recall derivatives correctly for function such as constant, power, polynomial, ex, sine and cosine functions, and basic combinations of these (constant multiples, sums, differences). (3.3)
- D2: I can compute derivatives of products and quotients of functions. I can apply these techniques to compute derivatives of trigonometric functions. (3.4, 3.5)
- D3: I can compute derivatives using the chain rule. (3.7)
- D4: I can compute derivatives using implicit differentiation. I can apply this technique to compute derivatives of inverse functions (including inverse trig functions), logarithms, and exponentials. I can also use implicit differentiation to compute derivatives using logarithmic differentiation. (3.8, 3.9, 3.10)
- **D5: I can compute derivatives correctly by selecting appropriate tools and, possibly, using multiple rules in combination. (Chapter 3 in combination)**

Group A: Applications of the Derivative

- A1: I can recognize the derivative as a rate of change as well as interpret and apply the meaning of the derivative in the context of the function. This includes the context of relationships between position, velocity, and acceleration. (3.6)
- A2: I can use derivatives to find critical points as well as any absolute extrema (maxima or minima) of functions on a closed interval. (4.1)
- **A3: I can use derivatives to find critical points, intervals of increase/decrease, inflection points, intervals of concavity, as well as any local and absolute extrema of functions using the first and second derivative tests. (4.3)**
- A4: I can use derivatives to set up and/or solve optimization problems (4.5).

- A5: I can use the derivative to find the tangent line to a function at a given point. I can also use derivatives to find the linearization of a function at a point and use the linearization to estimate function values (4.6)

Group I: Integration

- I1: I can find antiderivatives of standard functions. (4.9)
- I2. I can interpret areas under graphs as Riemann sums and Riemann sums as area. I can use Riemann sums to approximate the area under a graph. (5.1)
- I3: I can express a definite integral as a limit of a Riemann sum and vice versa. I can compute definite integrals by evaluating limits of Riemann sums and/or using geometry. (5.2)
- **I4. I can use the Fundamental Theorem of Calculus and properties of integrals to evaluate definite integrals. (5.3)**
- I5. I can determine whether substitution is an appropriate method, and I can evaluate integrals using the substitution method. (5.5)