

Math 180

1. Communication: Students will use proper mathematical notation and terminology to communicate mathematical phrases and concepts that appear in calculus.
(Relates to UNM/ HED Area II, Calculus Competencies 1 & 2)
2. The Derivative: Students will demonstrate a working knowledge of what slope of a line versus a curve means. They will demonstrate the ways of finding the derivative for a given function and then use this expression to find rates of change and equations of tangent lines. They will also find the derivative through the proper limit definition.
(Relates to UNM /HED Area II, Calculus Competencies 1, 2 & 3)
3. Applications of the Derivative: Students will demonstrate how the derivative is used to describe features for the graph of a function, such as points of extrema, concavity and intervals of increasing and decreasing function values. They will apply this knowledge to solving real world applications which require rates of change, optimization, etc.
(Relates to UNM /HED Area II, Calculus Competencies 2, 3 & 4)
4. Integrals: Students will find anti-derivatives for a variety of functions. They will apply the Fundamental Theorem of Calculus to evaluate definite integrals and apply the knowledge that this provides area of bounded regions.
(Relates to UNM /HED Area II, Calculus Competencies 1 & 4)