

University of Notre Dame Department of Mathematics
MATHEMATICS TEACHING SEMINAR

Quinn Culver and Victor Ocasio Gonzalez

University of Notre Dame

Will give two lectures entitled:

**“Derivatives”
&
“An Introduction to Integration in Polar Coordinates.”**

Tuesday, March 1, 2011

At

5:00 PM

In

125 Hayes-Healy Hall

Abstracts

Quinn Culver will present “Derivatives”.

Abstract: In this talk I will give a motivation for and definition of the derivative followed by some examples.

Victor Ocasio Gonzalez will present “An introduction to Integration in Polar Coordinates”.

Abstract: How do we integrate in polar coordinates and how does it differ from conventional integration in rectangular coordinates? We explain briefly the reasoning behind the formula $\frac{1}{2} \int_a^b [f(\theta)]^2 d\theta$ for computing area and how it might differ from conventional integration. Knowledge on polar coordinate plane and polar graphing is presupposed.