

WICHITA STATE UNIVERSITY

Department of Mathematics and Statistics

*The Lecture Series in the
Mathematical Sciences Presents Our Guest:*

Dr. Harold Parks

Oregon State University, Corvallis, OR

*"Generalizing Faulhaber's Formula to
Non-Integral Powers"*

Abstract:

The familiar formulas for the sum of the first N positive integers and for the sum of the squares of the first N positive integers are special cases of a formula for the sum of any positive-integral power of the first N positive integers. This more general formula is attributed to Johann Faulhaber (1580--1635) and can be neatly expressed using the Bernoulli numbers. Faulhaber's formula has a surprisingly nice generalization to non-integral powers that I will describe. An almost entirely elementary proof will be sketched.

**Friday, August 31, 2007
3:00 PM in 372 Jabara Hall**

*Please come join us for refreshments before the lecture
at 2:30 p.m. in room 353 Jabara Hall.*