

WICHITA STATE UNIVERSITY  
Department of Mathematics and Statistics

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

**Dr. Kirk Lancaster**  
Wichita State University

*“Blow ups of prescribed mean curvature surfaces  
at boundary points: convex corners”*

Abstract:

One technique which is useful in the calculus of variations is that of “blowing up”. This technique can contribute to the understanding of the boundary behavior of solutions of boundary value problems, especially when they involve mean curvature (or generalizations of mean curvature) and a contact angle boundary condition.

This talk will discuss the structure of “blown up” sets which arise from generalized solutions of prescribed mean curvature problems (in the sense of Miranda and Giusti) and the behavior of the unit normal to a prescribed mean curvature surface “at a convex corner.” This talk is intended to be accessible to undergraduate students and represents joint work with Professor Thalia Jeffres.

**Friday, October 27, 2006**  
**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.*