

MARK DOUGHERTY

GRADUATE RESEARCH AND TEACHING EXPERIENCE:

Research Fellow, Charles E. Via, Jr. Department of Civil & Environmental Engineering, Virginia Tech, Blacksburg, VA, September 2000 – present

Graduate research and coursework in environmental engineering, hydrology, and remote sensing. Research area: water quality analysis of the Occoquan watershed in northern Virginia using geographic information/modeling systems. Taught two Civil & Environmental Engineering Measurements Laboratories covering data analysis and AutoCAD application of field-surveyed data.

Research Assistant, Forestry Department, Virginia Tech, Blacksburg, VA, August 1998 – August 1999

Graduate research and coursework in soils, statistics, and modeling of biological systems. Enrolled in interdisciplinary program in Crop, Soils, and Environmental Science and Forestry Departments. Assisted in teaching of mid-level Forest Measurements Laboratory. Obtained engineering licensure in Virginia and Pennsylvania in March, 1999.

M.S. Research, Biological Systems Engineering Department, Virginia Tech, Blacksburg, VA, August 1993 – March 1995

Developed and conducted on-farm manure sampling of dairy and poultry producers in Virginia. Applied preservation treatments to manure samples for study. Analyzed manure for moisture content, bulk density, pH, total Kjeldahl nitrogen, exchangeable ammonium, and nitrate/nitrite using standard laboratory techniques. Identified effects of preservation treatments by designing and evaluating a statistical randomized block. Assisted major professor with classroom teaching of senior-level agricultural machine design course, including class lectures, laboratory instruction, and examination writing.
