Norma L. Ortiz (nlortiz@[nospam]vcu.edu[1]), Virginia Commonwealth University, Richmond, VA, 23284, *The Generalized Problem of Bolza with Time Delay* (203 Prescott Hall, Wednesday May 24th, 1:30-2:00).

In this talk we present the generalized problem of Bolza with continuously varying time delay in both the state and velocity variables. We present an existence result and explain how this problem is related to the general optimal control problem. Our work uses a decoupling technique, developed by Clarke for the case without delays, to obtain necessary conditions for optimality. The material presented in this talk is based on the following papers:

[1] Ortiz, N., "Necessary conditions for the neutral problem of Bolza with continuously varying time delay," *Journal of Mathematical Analysis and Applications*, Volume 305, 2005, pp. 513-527.

[2] Ortiz, N., and P. Wolenski, "An existence theorem for neutral variational problems of Bolza," *Journal of Mathematical Analysis and Applications*, Volume 289, 2004, pp. 260-265.

Biographical Sketch. Norma Ortiz was born in San Juan, Puerto Rico and received her B.S. in Computer Science from the University of Louisiana at Lafayette. She received her Ph.D. in Mathematics from Louisiana State University in May 2005 under the direction of Peter R. Wolenski. She has been an Assistant Professor at Virginia Commonwealth University since August 2005. Her research interests include dynamical systems with time delay and optimal control.

[1] The [nospam] should be omitted when sending email. It was included here to avoid automatic "harvesting" by spam-list makers.