Department of Chemical Engineering

University of Washington

**LEADERSHIP SEMINAR SERIES**

2:30-3:20 p.m., Wednesday, October 17, 2012

Physics Astronomy Building (PAA) Room A110

*Refreshments to follow in Benson Hall lobby.*

**"My Career in Engineering and Technology”**

Karl Nelson BS ’87, MS ’90

Technology Fellow, The Boeing Company

**Abstract:**

Karl Nelson has spent 30 years as a Chemical Engineer working in engineering and technology.  His experiences have focused on aerospace manufacturing processes, starting with the building of solid rocket boosters for Morton Thiokol, returning to graduate school (UW), and now working for Boeing - specializing in composite materials and processes.  Karl will talk about being an engineer, his challenges, and some of the technical problems he has faced along the way.  In particular, he will talk about the development of composite process modeling technology and how it was applied to create the cure cycle for the 787 composite fuselage.

**Brief Bio:**

Karl was born in Pueblo Colorado in 1960 where he graduated from high school in 1979.  Four years later, he received his BS in Chemical and Petroleum Refining Engineering from the Colorado School of Mines in Golden, after which he worked three years at Morton Thiokol (now ATK Launch Systems).   His first job as a Chemical Engineer was in Technical Services, developing and refining processes for mixing and casting solid rocket propellants.  Thiokol’s filament winding of rocket cases sparked an interest in composite materials.  Karl returned to school, entering the University of Washington’s Chemical Engineering department as a graduate student in 1986.  He studied high-performance thermoplastic composites with Prof. Jim Seferis and Prof. Jan-Anders Manson, graduating with a PhD in 1990.  Ever since this date, Karl has been working for the Boeing Company in technology associated with composite materials and processes.  He is currently a Technical Fellow working for Boeing Research and Technology (BR&T).