



# Northeastern University

## College of Engineering

**CEE 7400: Graduate Seminar Series**  
**Department Civil and Environmental Engineering**

## **The Emerging Discipline of Sustainable Engineering**

**Cliff Davidson**  
**Professor, Syracuse University**  
**Center of Excellence in Environmental and Energy Systems**  
**and Department of Civil and Environmental Engineering**

**Thursday, September 30, 2010**

**3:00-4:00 PM\***

**105 Shillman Hall**

### **Abstract**

Human civilization faces new challenges as the global population continues to grow and standards of living continue to improve. Both of these trends put added pressure on the earth's finite resources and its life support systems. As governments around the world try to cope with these trends, engineers are being asked to take on ever greater responsibilities to ensure that human development can continue for the long-term future using newly developed principles of Sustainable Engineering. In this seminar, we first survey many of the topics that comprise Sustainable Engineering, taking a "breadth view" of the discipline. Then we choose one of these topics, namely the role of Human Behavior, and examine this topic in some depth to illustrate its complexity and importance to engineers attempting to pursue engineering design in a sustainable way.



**Professor Cliff Davidson** received his B.S. in Electrical Engineering from Carnegie Mellon University, and his M.S. and Ph.D. degrees in Environmental Engineering Science from California Institute of Technology. Following his PhD, he joined the Carnegie Mellon faculty in the Department of Civil and Environmental Engineering and the Department of Engineering and Public Policy where he served for 33 years. While at Carnegie Mellon, he published several books and over 100 journal papers, and served on numerous government committees. He also served as President of the American Association for Aerosol Research in 1999-2000. In 2010, he moved to Syracuse University where he is currently the Thomas C. and Colleen L. Wilmot Professor of Engineering, and Director of the Center for Sustainable Engineering.

*\* 30 minute reception to follow*