Charles N. Haas, Ph.D.
Professor
Department of Civil, Architectural and Environmental Engineering
Drexel University

PROFESSIONAL PREPARATION:

Illinois Institute of Technology	Biology	BS 1973
Illinois Institute of Technology	Environ. Eng.	MS 1974
Univ. of Illinois at Urbaba	Environ. Eng.	PhD 1978

APPOINTMENTS:

2005-- : Head, Department of Civil, Architectural and Environmental Engineering
2003–2005: Interim Head, Department of Civil, Architectural and Environmental Engineering
1991–: : Betz Chair Professor of Environmental Engineering, Drexel University.
1981-1990: Assistant Professor (1981-83), Associate Professor (1983-87), Professor (1987-90) Illinois Institute of Technology
1978-1981: Assistant Professor of Environmental Engineering in the Department of Chemical and Environmental Engineering, (1979-1981), Acting Director of Environmental Engineering Programs, Rensselaer Polytechnic Institute

SELECTED PUBLICATIONS:

"The Role of Risk Analysis in Understanding Bioterrorism", C.N. Haas, Risk Analysis, 22(4):671-7 (2002).
"Effect of Initial Microbial Density on Inactivation of *Giardia muris* by Ozone", C.N. Haas and B. Kaymak, Water Research 37:2980-8 (2003).
"Risk Assessment of Waterborne Coxsackievirus", K.D. Mena, C.P. Gerba, C.N. Haas and J.B. Rose, Journal of the American Water Works Association, 95(7):122-131 (2003).
"Neural Networks Provide Superior Description of *Giardia lamblia* Inactivation by Free Chlorine", C.N. Haas, Water Research, 38:3449-57 (2004).
"CFD Design Approach for Chlorine Disinfection Processes", D.J. Greene, B. Farouk, C.N. Haas, Journal of the American Water Works Association, 96(8):138-150 (2004).
D. Krewski, J. Balbus, D. Butler-Jones, C. N. Haas, J. Isaac-Renton, K. J. Roberts, and M. Sinclair. Managing the microbiological risks of drinking water." Journal of Toxicology and Environmental Health 67:1591-1617, 2004.
"A National Study on the Residential Impact of Biological Aerosols from the Land Application of Biosolids", Journal of Applied Microbiology 99:310-22 (2005), JP Brooks, BD Tanner, KL Josephson, CP Gerba, CN Haas and IL Pepper.
"Chlorine and Ozone Disinfection of *Encephalitozoon intestinalis* Spores", DE John, C.N. Haas, N. Nwachuku and C.P. Gerba, Water Research 39(11):2369-75 (2005)
"It's Not the Heat, It's the Humidity: Wet Weather Increases Legionellosis Risk in the Greater Philadelphia Metropolitan Area " Journal of Infectious Diseases **192**: 2066-73 (2006), D.N. Fisman, S. Lim, G.A. Wellenis, C. Johnson, P. Britz, M. Gaskins, J. Maher, M.A. Mittleman, C.V. Spain, C.N. Haas and C. Newbern.

SYNERGISTIC ACTIVITIES:

Association of Environmental Engineering and Science Professors
Member, Board of Directors, 2001-2004
Treasurer and Member of the Executive Committee, 2002–2004
Chairman, Conference Planning Committee, 2003-present
Water Environment Federation
Director-at-Large, 2004-2006.
Society for Risk Analysis, Councilor (member, Board of Directors), 2000–2003
American Society for Microbiology
Public and Scientific Affairs Board, Committee on Environmental Microbiology, Member (2003)

SELECTED HONORS AND AWARDS:

American Academy of Microbiology, Elected as Fellow (1997)
Frontiers in Research Award, Association of Environmental Engineering and Science Professors (sponsored by Malcolm Pirnie, Inc) (2002).
American Association for the Advancement of Science, Elected as Fellow (2002)
Society for Risk Analysis, Elected as Fellow (2002)

University of Illinois at Urbana-Champaign, Department of Civil and Environmental Engineering, Distinguished Alumnus Award (2003)

International Ozone Association, Harvey M. Rosen Memorial Award (best paper in Ozone Science and Engineering for 2001-3) (2003).

National Academies (National Academy of Sciences, National Academy of Engineering, Institute of Medicine, National Research Council): designated as a National Associate (2004).

American Water Works Association, advisor to 2nd Place Academic Achievement Award Winner (Christopher Crockett—PhD dissertation) (2005).

COLLABORATORS AND OTHER AFFILIATIONS:

Collaborators: Joan Rose (MSU), Chuck Gerba (Arizona), Ian Pepper (Arizona), Mitch Small (CMU)

Graduate Advisors: James Patterson (retired), Vern Snoeyink (Illinois)

RECENT TRAINING ACTIVITIES:

Graduate Students

2001	PhD (Env Eng)	Paula R. Klink	Ion exchange on a chelating resin: multicomponent equilibrium predictions using binary data
2002	MS (Env Eng)	Jason Marie	Use of Microbial Risk Modeling to Determine the Benefit of Topical Antimicrobial Products
2002	PhD (Env Eng)	Dennis Greene	Numerical Simulation of Chlorine Disinfection Processes in Non-Ideal Reactors
2003	PhD (Env Eng)	Baris Kaymak	Effect of Initial Microorganism Concentration on Disinfection Efficiency by Chlorine.
2004	PhD (Env Eng)	Lijie Li	Effects of Initial Microbial Density on Disinfection Efficiency in a Continuous Flow System and Validation of Disinfection Batch Kinetics in a Continuous Flow System
2004	PhD (Env Eng)	Christopher Crockett	The Concentration and Resuspension of *Cryptosporidium* Oocysts by Sediments
2005	PhD (Env Eng)	Thomas Armstrong	A quantitative microbial risk assessment model for human inhalation exposure to *Legionella*

Undergraduates

Senior design groups during all years since 1999/2000

Freshman design groups during all years since 2001/2