



# Tufts

UNIVERSITY

## M.S./Ph.D. Research and Teaching Assistantships at Tufts University

The Civil and Environmental Engineering Department at Tufts University has six teaching assistantships and several research assistantships available for students interested in pursuing an MS or PhD degree within a dynamic research environment. Both assistantships include summer support for thesis research. Located only six miles from historic downtown Boston in Medford, Massachusetts, the Department of Civil and Environmental Engineering at Tufts University thrives on interdisciplinary collaborations. Assistantships are currently available in the following areas:

1. Statistical analysis of spatial and temporal geotechnical and geological data related to geohazards (earthquakes and landslides). Contact Prof. Laurie Baise at [laurie.baise@tufts.edu](mailto:laurie.baise@tufts.edu).
2. Relationship between water management and public health. A one year (or more) fellowship available to a PhD student (USA citizen) who also joins the Tufts Water: Systems, Science, and Society (WSSS) Interdisciplinary Graduate Program ([www.tufts.edu/water](http://www.tufts.edu/water)). Contact Res. Prof. Paul Kirshen, [paul.kirshen@tufts.edu](mailto:paul.kirshen@tufts.edu).
3. Experimental, analytical and numerical aspects of nonlinear mechanics, with particular emphasis on development of constitutive equations (mathematical models of material behavior) and computational models of abdominal aortic aneurysms. Contact Prof. Luis Dorfmann at [luis.dorfmann@tufts.edu](mailto:luis.dorfmann@tufts.edu)
4. Experimental investigations of reactive flow and transport processes within porous media containing multiple fluid phases. Contact Prof. Andrew Ramsburg at [andrew.ramsburg@tufts.edu](mailto:andrew.ramsburg@tufts.edu)
5. Predictive modeling and parameter estimation for reactive transport in multiphase porous media systems. Contact Professor Linda Abriola at [linda.abriola@tufts.edu](mailto:linda.abriola@tufts.edu)
6. Water quality modeling. Contact Prof. Steve Chapra at [steven.chapra@tufts.edu](mailto:steven.chapra@tufts.edu)
7. Design and experimental evaluation of novel hand-portable fiber-optic based methods for water quality analysis; or investigations of aging processes on membranes used in water treatment. Contact Prof. Wayne Chudyk at [wayne.chudyk@tufts.edu](mailto:wayne.chudyk@tufts.edu)
8. Possible Enhancement of Hydrologic Cycle Due to Climate Change: Identification and Hydrologic Implications; Remote Sensing of Surface Processes; Development of Medium (several weeks) to Long (seasonal) Range Forecasting Tools for Water Resources Planning and Management in Developing Countries. Contact Prof. Islam at [Shafiqul.Islam@tufts.edu](mailto:Shafiqul.Islam@tufts.edu).
9. Health monitoring of structures such as buildings and bridges using both analytical models and experimental data. Contact Prof. Masoud Sanayei at [Masoud.sanayei@tufts.edu](mailto:Masoud.sanayei@tufts.edu)
10. Seismic design and collapse performance assessment of low-ductility systems in moderate seismic regions. Contact Prof. Eric Hines at [emhines@lemessurier.com](mailto:emhines@lemessurier.com)
11. Development of baseline analytical models and comparison with field measurements for evaluation of long term bridge design and performance. Contact Professor Brian Brenner at [brian.brenner@tufts.edu](mailto:brian.brenner@tufts.edu).

Please include a resume with your inquiry. The application deadline for enrollment in Fall 2008 is January 15, 2008. Research within the Department of Civil and Environmental Engineering at Tufts is sponsored by National Science Foundation (NSF), Defense Advanced Research Projects Agency (DARPA), Strategic Environmental Research and Development Program (SERDP), Department of Energy (DOE), the United States Geologic Survey (USGS), National Institutes of Health (NIH) and the National Institute for Occupational Safety and Health (NIOSH). For general information please contact Laura Sacco at [laura.sacco@tufts.edu](mailto:laura.sacco@tufts.edu)