

## William W. Montgomery, Ph.D.

### Education

Western Michigan University	PhD - Geology / Hydrogeology	1998
University of Wisconsin-Madison	MS - Geology	1977
University of Michigan	BS - Geology	1975

### Experience

#### **Assistant / Associate Professor of Geoscience, New Jersey City University, 1998 - present**

- Developed and/or taught introductory courses: Science Experience; Computer As A Tool; Earth Science; Physical Geography; Oceanography; First Year Experience: Issues in Environment
- Developed and/or taught intermediate and advanced courses: Contemporary Applications of GIS; Contemporary Analysis with GIS; Geophysics; Field Methods in Geoscience; Coastal Geology; Experimental Meteorology & Oceanography; Hydrogeology
- Developed Certificate in Geographic Information Systems (GIS) Program
- Modernized & upgraded research capacity of Dept & Institution through external funding
- Developed active, community-based undergraduate research program to facilitate student growth and aid communities by studying / solving problems of local interest and importance
- Led institution-wide initiatives to modernize pedagogy and improve educational delivery

#### **1993-1998 Ph.D. Candidate, Western Michigan University**

- 1996-97 - Graduate Research Assistant - Developed and implemented PhD research plans, including well drilling, sample testing, and GIS-based airphoto analysis and mapping
- 1995-96 - Graduate Research Fellow - Developed PhD dissertation topic, procured \$200K for dissertation research, and performed initial phases of dissertation fieldwork and research
- 1993-95 - Instructor / Lecturer - Lectured 300 students per term

#### **1977-1993 Geologist, Atlantic Richfield Company**

- 1991-93 - Technical Evaluator / New Ventures Group - Identified, evaluated, and generated large-scale petroleum exploration prospects throughout the United States
- 1985-91 - Area Supervisor; Midcontinent U.S. - Developed exploration and acreage acquisition strategies, provided development support, supervised technical and support personnel
- 1981-85 - Senior Geologist; Williston Basin and Rocky Mts. - Developed comprehensive computer data base for oil/gas wells, supervised technical personnel
- 1977-81 - Geologist; Gulf of Mexico, Rocky Mountains – Performed geological / geophysical prospecting and development, field mapping, and wellsite duty

### Honors and Awards

- Nat'l Institutes of Health award to map cancer incidence & disparities in minorities – 2004-07
- Dept of Education awards (2) to improve minority student performance – 2000-04; 2004-07
- HUD award to use GIS to study / improve Jersey City flooding problems – 2001-04
- NSF awards (3) to create / upgrade GIS lab & curriculum – 1999-2000; 2001-03; 2004-07
- NJCU awards (3) to support high-tech undergraduate research – 1999-2000; 2001-02; 2004-05
- Geological Society of America, Hydrogeology Division Student Research Award - 1996 (one of top 3 hydrogeology research proposals in nation)
- U.S. Army Research Office - 1996 - \$176,000 for Ph.D. dissertation research
- WMU Research Fellows Program Award - 1995 - among top ten research proposals at WMU

## Publications & Presentations

- SooHoo, T., Krantz, M., Collins, J.W., Jr., and **Montgomery, W.W.**, 2008, "Infusing GIS Across the Curriculum: Professional Security Studies at NJCU", 2<sup>nd</sup> Ann Homeland Defense and Security Education Summit, Univ. Park, MD
- Rosiello, Angela, Raia, Justin, Freile, Deborah and **Montgomery, William**, 2008, Spatial distribution of lead in soils near the New Jersey City University campus, Jersey City, NJ and their potential sources, *Geol. Soc. Am. Abstracts with Programs*, Vol.41, [Abstract], p. 247.
- Ramrup, Satish, Kaczka, Paul, Pastor, Raphael, Rosiello, Angela, Robles, Sadira., Freile, Deborah, and **Montgomery, William W.**, 2008, Mapping lead contamination in Jersey City, NJ using Geographic Information Systems. *Geol. Soc. Am. Abstracts with Programs*, Vol.40, [Abstract]
- Rosiello, Angela, Ramrup, Satish, Pastor, Raphael, Robles, Sadira, Kaczka, Paul, Cruz, Samuel, **Montgomery, William**, and Freile, Deborah, 2007, Distribution of lead in soils near the New Jersey City University campus: Jersey City, NJ *Geol. Soc. Am. Abstracts with Programs*, Vol. 39, No. 6, p. 322 [Abstract]
- Ramrup, Satish, Pastor, Raphael, Rosiello, Angela, Robles, Sadira, Kaczka, Paul, **Montgomery, William W.**, and Freile, Deborah, 2007, Using geographic information systems to map lead contamination in soils in Jersey City, NJ, *Geol. Soc. Am. Abstracts with Programs*, Vol. 39, No. 6, p. 322 [Abstract]
- Montgomery, W.W.**, Fagan, J., Brown, D., and Grew, J., 2007, "Improving Community Service through Public Health Informatics", American Public Health Association Ann Mtg, Washington, D.C.
- Montgomery, W.W.**, Ramrup, S., Fagan, J., Grew, J., and Brown, D., 2007, "GIS-Based, Targeted Prostate Cancer Outreach in Newark, NJ - An Approach to Reduce Health Disparities", 2007, Council of State and Territorial Epidemiologists Annual Meeting, Atlantic City, NJ
- Montgomery, W.W.**, Ramrup, S., Fagan, J., Grew, J., and Brown, D., 2007, "Targeted Prostate Cancer Outreach in Newark, NJ - A GIS Approach to Reduce Health Disparities", American Cancer Society: Bridging the Health Care Divide, New Orleans, LA
- Macaoay, S. and **W.W. Montgomery**, 2006, eds, "Environmental Geology of the New Jersey Highlands", Geological Association of New Jersey XXIII Annual Meeting Guidebook
- Brown, D., **Montgomery, W.W.**, Rosado, L., McCathern, R., and Fyffe, D., 2006, "Addressing Cancer Disparities in New Jersey Communities", Nat'l Cancer Inst Health Disparities Summit, Bethesda, MD
- Kaczka, P., **Montgomery, W.W.**, Waldner, J., Friedman, A., and Paczinyk, D., 2006, "GPR / GPS / GIS Characterization of an 18<sup>th</sup> century burial plot, Ho-Ho-Kus, NJ", MAC-URISA Conf, Piscataway, NJ
- Raffaele, A., **Montgomery, W.W.**, Rancier, A., and Yamaguchi, K., 2006, "Use of geospatial techniques and chemical analysis to track contaminants", American Chem Soc, 231<sup>st</sup> Annual Meeting, Atlanta, GA
- Montgomery, W.W.**, 2003, "Enhancement of student learning - Technology in Environmental Science", New Jersey City University Academic Forum, v. 11, no.1, pp. 37-39
- Miklas, S., S. Bandyopadhyah, and **W.W. Montgomery**, 2002, "Use of GIS and GPS to map Jersey City, NJ Infrastructure", New Jersey City University 2002 Science Symposium
- Montgomery, W.W.**, 2001, "Ethics and Global Warming: What We Know and What We Don't Know", New Jersey City University Academic Forum, v.10, no.1, pp.31-33
- Chase, R.B., Chase, K.E., Kehew, A.E., and **Montgomery, W.W.**, 2001, "Determining the kinematics of slope movements using low-cost monitoring and cross-section balancing", *Environmental and Engineering Geoscience*, v.7, no.2, pp. 193-203
- Chase, R.B., Kehew, A.E., and **Montgomery, W.W.**, 2001, "Determination of slope kinematics and causes of failure using geometric models and climate data", in Harmon, R.S. and Doe III, W.W. (eds.), *Landscape Erosion and Evolution Modeling*, Kluwer Academic, N.Y, N.Y.
- Montgomery, W.W.**, 2000, "Geographic Information Systems (GIS) Technology – Examples of Applications in the Study of Shoreline Recession", New Jersey City University Academic Forum, v.8, no.2, pp. 34-37
- Montgomery, W.W.**, 2000, "GIS-Based analysis of bluff failure on Lake Michigan and applications to the Atlantic Highlands, NJ and Staten Island, NY", NE section, *Geol Soc Amer Abstracts w/ Programs*, New Brunswick, NJ
- Montgomery, W.W.**, R.B. Chase, A.E. Kehew, G.P. Anderson, 1999, "GIS-based shoreline recession analysis on the eastern shore of Lake Michigan, Long Island Geologists' 6<sup>th</sup> Ann Conf, Abstracts w/ Programs, Long Island, NY
- Montgomery, W.W.**, R.B. Chase, A.E. Kehew, V.H. Torrey III, 1998, "Factors of Safety and relationships to historical bluff recession in Pleistocene deposits – eastern shore of Lake Michigan", *Geol Soc Amer Abstracts w/ Programs*, Toronto, ON
- Montgomery, W.W.**, R.B. Chase, A.E. Kehew, G.P. Anderson, 1997, "Relationships between lithology, hydraulic head, and shoreline recession on the eastern shore of Lake Michigan", *Geol Soc Amer Abstracts w/ Programs*, Salt Lake City, UT

- Chase, R.B., **W.W. Montgomery**, A.E. Kehew, 1997, "Stratigraphic and hydrogeologic controls on mass movements in heterogeneous glacial materials", Geol Soc Amer Abs w/ Programs, Salt Lake City, UT
- Montgomery, W.W.**, R.B. Chase, A.E. Kehew, G.P. Anderson, 1996a, "Stability of the Lake Michigan Shore, Allegan Co., Michigan - A Preliminary Hazard Map", Geol Soc Amer Abs w/ Programs, Denver, CO.
- Montgomery, W.W.**, R.B. Chase, A.E. Kehew, 1996b, "Degradation of Slopes Composed of Clay-Rich Till: Relationships Between Ground-Water Activity and Accelerated Mass Movements", Geol Soc Amer Abstracts w/ Programs, Denver, CO.
- Montgomery, W.W.**, and C.J. Serpas, 1990, "Log Response of the St. Peter Sandstone, Michigan Basin", Atlantic Richfield Co., 1990 Exploration Symposium
- Montgomery, W. W.**, 1977, "Upper Precambrian Geologic Map of Northern Wisconsin, and western upper Michigan", University of Wisconsin, Madison, WI
- Craddock, J.C., **W.W. Montgomery** and M.G. Mudrey, Jr., 1977, "Lake Superior Field Trip Guidebook", University of Wisconsin, Madison, WI