

Kyle C. Fredrick

Department of Earth Sciences
California University of Pennsylvania
Box #55
250 University Avenue
California, PA 15419

Work: 724-938-4180
Phone: 716-572-3818 (C)
Fax: 714-938-5780
Email: Fredrick@cup.edu

Degrees Earned:

February, 2008 Ph.D. Geology, University at Buffalo, Buffalo, New York.
Dissertation: *Determining effective data requirements for evaluating regional aquifers using the Analytic Element Method*

May, 2000 B.S. Geology, University of Wisconsin at River Falls, River Falls, Wisconsin.

Other Education:

June, 2000 University at Buffalo, Buffalo, New York. Geological Field Methods.
1990-1994 University of Wisconsin at Milwaukee, Milwaukee, Wisconsin.

Positions Held:

2006-2007 Faculty, Multiple Courses, Department of Geosciences, Hobart & William Smith Colleges, Geneva, New York.

2005-2006 Faculty, Multiple Courses, Earth Sciences and Science Education Department, Buffalo State College, Buffalo, New York.

2005-2006 Faculty, Instructor for courses associated with the Buffalo Geosciences Program for diversity in the geosciences at Erie Community College, administered by the University at Buffalo, Buffalo, New York.

Spring 2005 Instructor, Surface Processes and Hydrology II, Department of Geology, University at Buffalo, Buffalo, New York.

2001-2005 Graduate Research Assistant, Department of Geology, University at Buffalo, Buffalo, New York.

Spring 2004 Guest Lecturer, Surface Processes and Hydrology II, Department of Geology, University at Buffalo, Buffalo, New York.

2002-2003 Teaching Assistant, Geological Field Training, Department of Geology, University at Buffalo, Buffalo, New York.

Awards and Honors:

2004 College of Arts and Sciences Dissertation Fellowship, University at Buffalo, Buffalo, New York.

2003 Outstanding Speaker Award, Environment and Society Institute Spring Colloquium, UB.

2001-2002 Environment and Society Institute Fellowship, UB.

2000 Moses Strong Memorial Scholarship, University of Wisconsin at River Falls, River Falls, Wisconsin.

2000 Outstanding Senior in Geology, UWRF.

Publications:

Articles Published

- M.W. Becker, T. Georgian, H. Ambrose, J. Siniscalchi, and K. Fredrick, Estimating flow and flux of ground-water discharge using water temperature and velocity, *Journal of Hydrology*, 296 (1-4), 221-233, August 20, 2004.
- K.C. Fredrick, M.W. Becker, D.M. Flewelling, W. Silavisesrith, and E.R. Hart, Enhancement of aquifer vulnerability of indexing using the analytic-element method, *Environmental Geology*, 45 (8), 1054-1061, June 2004.
- Alan J. Rabideau, James R. Craig, Warit Silavisesrith, Kyle Fredrick, Douglas Flewelling, Igor Jankovic, Matthew W. Becker, Karl Bandilla, L. Shawn Matott, "Analytic modeling of super-regional groundwater flow: Concepts and tools for automated model configuration," *Journal of Hydrologic Engineering*: In Press.
- K.C. Fredrick, M.W. Becker, L.S. Matott, A. Daw, K. Bandilla, and D. Flewelling, "Calibration of a Numerical Ground Water Flow Model to SRTM Elevations." Accepted for publication to *Hydrogeology Journal*, February, 2006.

Reports

- Dakota County Env. Management, Hastings Area Nitrate Study Final Report, March, 2003.

Articles in Preparation

- K.C. Fredrick, M.W. Becker, L.S. Matott, and A.J. Rabideau, "Effects of Element Specification on Residence Time of Ground Water," in preparation for submittal to *Ground Water*. Estimated submittal date: July, 2006.

Presentations and Abstracts

- J.R. Craig, A.J. Rabideau, M.W. Becker, K. Bandilla, D.M. Flewelling, K.C. Fredrick, I. Jankovic, L.S. Matott, W. Silavisesrith, *Development of a Regional-Scale Groundwater Modeling System for Research, Education, and Outreach*, 2005 AEESP Research and Education Conference, Potsdam, NY, July 24-27, 2005
- K.C. Fredrick, L.S. Matott, A.J. Rabideau, and M.W. Becker, High-accuracy Lake Level Measurements as Calibration Observations in Regional Ground-water Modeling, 2004 American Geophysical Union Fall Meeting, San Francisco, California, December 13-17, 2004.
- L.S. Matott, K.C. Fredrick, A.J. Rabideau, M.W. Becker, Calibration of the Geometry of Hydraulic Conductivity Zones in Groundwater Flow Models, 2004 AGU Fall Meeting, San Francisco, California, December 13-17, 2004.
- K.C. Fredrick, Enhancement of aquifer vulnerability of indexing using the analytic-element method, AGU Fall Meeting, San Francisco, California, December 12-16, 2003.

Professional Associations:

- American Geophysical Union (AGU)
National Ground Water Association (NGWA)
Geological Society of America (GSA)
National Association of Geoscience Teachers (NAGT)