

CURRICULUM VITAE
Terry D. Lahm, Ph.D.
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EDUCATION

Ph.D., Geology, Specializing in Hydrogeology, Ohio State University, 1997.
M.S., Geology, Specializing in Hydrogeology, Ohio State University, 1993.
B.A., with Honors in Geology, College of Wooster, 1989.

CONTINUING EDUCATION

CUR, *Council on Undergraduate Research*, 2005, Institutionalizing Undergraduate Research, three day workshop at Harvey Mudd College.
GSA, *Geological Society of America*, 2005, Springs Inventory and Classification Short-Course and Field Trip, one-day short course; Northern Arizona University.
NCSI, *National Computational Science Institute*, 2002, Introduction to Computational Science Modeling and Simulation in the Undergraduate Environment, five day workshop, Ohio Supercomputer Center.
Project TIMS, *Teaching in Math and Science*, 2002, Assessment of Teaching and Learning in Math and Science, one day workshop; University of Akron.
USDA & Keck Geology Consortium, 2001, Soils and the Undergraduate Geology Curriculum Workshop, three-day workshop.
NSF, *National Science Foundation*, 2001, Chautauqua Short Course, Ecological Communities and Geological Features of the Colorado Western Slope, five day short course in Colorado and Utah.
ESRI, *Environmental Systems Research Institute*, 1999, Short Course, Using ArcView Extensions in Geoscience Education, one day workshop in Utah.
CUR, *Council on Undergraduate Research*, 1999, Workshop, Undergraduate Research Opportunities at CUR national meeting, Wooster, Ohio.

PROFESSIONAL EXPERIENCE

- Capital University, Associate Provost, 2011-Present.
- Capital University, Assistant Dean School of Natural Sciences, Nursing and Health, 2008-2011.
- Capital University, Chair, Biology, Geology, and Environmental Science Department, 2008.
- Capital University, Co-director of the Center for Computational Studies, 2006-Present.
- Project Grad, Instructor, Summer 2006.
- Capital University, Associate Professor, Director of Environmental Science Program, Associate Director of the Center for Computational Studies, 2003-2006.
- Capital University, Assistant Professor & Director of Environmental Science Program, 1997-2003.
- College of Wooster, Adjunct Professor, 1997.

- Ohio State University, Instructor, 1995.
- Ohio State University, Graduate Research & Teaching Assistant, 1990-1993, 1994-1996.
- Engineering-Science, Inc., Div. of the Parsons Corp., Cleveland, Ohio, Geologist, 1989-1990.
- College of Wooster, Undergraduate Teaching & Laboratory Assistant, 1987-1989.

OTHER WORK EXPERIENCE

- Association of Ground Water Scientists and Engineers - National Ground Water Association, Assistant Instructor, "Analysis and Design of Aquifer Tests", Professional Short Courses, 1991-1997.
- E.S. Bair, Inc., Consulting Hydrogeologist and Assistant Instructor of Professional Short Course, 1993-1997.
- Brady Lake Citizens Assoc. vs. the City of Kent, Ohio, Hydrogeologist, conducted computer modeling simulations of groundwater flow, 1996.
- Sterling Citizens Assoc. vs. the City of Rittman, Ohio, Hydrogeologist, conducted field work and streambed permeability study, 1996.
- Ohio State University, Instructor, U.S. Department of Defense Environmental Restoration Program, 1995.
- Price Development Corp., Fairfield County, Ohio, Hydrogeologist, conducted and analyzed aquifer tests, logged water well drilling, constructed geologic maps and cross sections, 1993-1994.
- Association of Ground Water Scientists and Engineers - National Ground Water Association, Assistant Instructor, "Capture Zone Analysis for Contaminant Remediation and Wellhead Protection", Professional Short Course, 1992-1993.

GRANTS and AWARDS

- 2006 National Science Foundation – CCLI grant, PI, co-PIs., Karkowski, A. M., Hemkin, S., Mueller, G., & Vakalis, I. Development and dissemination of computational science educational materials and curricula at the undergraduate level, January 2007 to December 2010, \$480,020 grant funded by the National Science Foundation.
- 2005 Capital University, PI, Gerhold Grant, Expanding the Use of Geographic Information Systems in Undergraduate Curriculum, \$1,575.
- 2004 Capital University, co-PI, Use of an Ion Chromatograph to Establish Community-Centered Environmental Research Projects \$8,000 funded by the Capital University Skunkworks.
- 2004 Capital University, co-PI, Epistimi - Capital University's Journal of Undergraduate Research, \$4,000.
- 2003 Capital University, co-PI, Summer Undergraduate Research Fellowships, \$8,000 funded by the Capital University Skunkworks.
- 2003 Capital University, Gerhold Grant, co-PI, Initiating an Interdisciplinary Project for Undergraduate Research, \$3,650.
- 2002 W.M. Keck Foundation, co-PI, Keck Undergraduate Computational Science Educational Consortium (KUCSEC), 6/1/02 - 6/1/04, \$400,000.
- 2002 Capital University, Course Development Grant, \$440.
- 2001 Department of Energy, Energy-Related Laboratory Equipment (ERLE) grant for groundwater flow meter, \$10,625 value.

- 2000 National Science Foundation -CCLI Grant 9952806, co-PI, Computational Science Across The Curriculum, 6/1/00 - 6/1/03, \$396,075 .
- 1999 Capital University, Course Development Grant, \$400.
- 1998 Capital University, Course Development Grant, \$400.
- 1997 Ohio State University, Spieker Book Award, Excellence in Geological Research at the Ph.D. Level.
- 1996 Ohio State University, Presidential Fellowship, \$15,000.
- 1996 Geological Society of America, Graduate Research Grant for Ph.D. research, \$1,500.
- 1993 Ohio State University, Bownocker Fellowship, \$15,000.
- 1992 Ohio State University, Teaching Assistant Award.
- 1989 R.W. McDowell Prize, Highest Senior Standing in Geology, College of Wooster.
- 1989 Keck Geology Award for Excellence in Research, Keck Geology Consortium.
- 1988 Karl Ver Steeg Award, Highest Junior Standing in Geology, College of Wooster.

PROFESSIONAL AFFILIATIONS

American Geophysical Union - Hydrology Section
 Council of Undergraduate Research - Geology Division – Division Councilor 2005-present
 Geological Society of America - Hydrogeology Division
 National Association of Geoscience Teachers
 National Ground Water Association - Association of Ground Water Scientists and Engineers
 Project Kaleidoscope - F21 Member
 Sigma Xi - Scientific Research Society

TEACHING EXPERIENCE

Associate Professor at Capital University, Integrated Science by Inquiry 115, Scientific Terminology 120, Environmental Geology 230, Physical Geology 250, Oceanography 260, Research Methods 315, Geologic Surficial Processes 320, Hydrogeology 330, Senior Biology Seminar 400, Environmental Science 250, Computational Environmental Science 393, Environmental Science Seminar 400.

Assistant Professor at Capital University, Integrated Science by Inquiry 115, Environmental Geology 230, Science, Technology in Society 240, Physical Geology 250, Environmental Science 250, Oceanography 260, Junior Biology Seminar 300, Research Methods 315, Geologic Surficial Processes 320, Hydrogeology 330, Computational Environmental Science 393, Environmental Science Seminar 400, Senior Biology Seminar 400, Topics in Computational Science 493.

Adjunct Professor at College of Wooster, Environmental Geology 110.

Instructor at Ohio State University, Water Resources 204, U.S. Department of Defense Environmental Restoration Program.

Teaching Assistant, Ohio State University, Earth Systems 100, Physical Geology 121, Water Resources 204, Hydrogeology 651, Field Studies in Hydrogeology 652, Containment and Remediation of Contaminants in Ground Water 717, Quantitative Groundwater Flow Modeling 751, Contaminant Hydrogeology 752, National Ground Water Association Professional Short Courses, Michigan Department of Natural Resources Professional Short Course.

COMMITTEE SERVICE

Capital University Institutional Review Board: 2002-2004
Council on Undergraduate Research, Finance Committee: 2007-present
Council on Undergraduate Research, Meetings Committee: 2005-2007
Faculty Evaluation Committee: 2003-2008 (chair 2005-2008)
Facilities Subcommittee (Subcommittee of CUBAP): 2007-2008
Friends of Alum Creek, Action Planning Committee: 2002-2006
Friends of Alum Creek, Alum Creek Dam Removal Advisory Board: 2006-2007
Natural Science Working Group: 1997-present
Ohio Academy of Science Local Meeting Committee: 2001-2002
Science Building Planning Committee: 2004-2007
Science Building Project Shepherd: 2005-2007
Green Team Building Leader: 2005-2007
Search Committee, Administrator: 2002
Search Committees, Faculty: 1997, 2000, 2001 (chair), 2002, 2003, 2007
Search Committee, IT Staff: 2003
Senate Ad Hoc Committee on Promotion and Tenure: 2008
Scholarship Symposium Committee: 1999-present (co-chair 2005-2008)
Technology in the Curriculum Committee (TICC): 1998-2001, (chair 1999-2001)
Unified Theme Committee: 2008

PROFESSIONAL SERVICE – REVIEW OF PUBLICATIONS

BOOK AND REPORT EDITING

- McKenzie, Garry and Franklin Schwartz. 1998. Discovering Hydrogeology in Ohio, Ohio Environmental Education Fund & Ohio State University
- Porges, Robert and Matthew Hammer. 2001. The Compendium of Hydrogeology. National Ground Water Association. Westerville, Ohio. 303p.
- Woburn, MA Hydrogeology Field Trip Report, Geological Society of America, 2001 Annual Meeting, Boston, MA

PEER-REVIEW OF JOURNAL ARTICLES

- Epistimi: Capital University's Journal of Undergraduate Research
- Journal of Environmental & Engineering Geoscience
- Journal of Contaminant Hydrology
- Water Resources Research – Journal of the American Geophysical Union

PUBLICATIONS

- Karkowski, A. M., & Lahm, T. D. (2008). Student engagement in service to student learning: Evaluation of undergraduate research experiences across disciplines. Submitted for publication in *Journal for the Study of College Students*.
- Bair, E.S. & T.D. Lahm, 2006, *Practical Problems in Groundwater Hydrology*, Problem-Based Learning Using Excel Worksheets. Prentice Hall: Upper Saddle River, New Jersey.
- Lahm, T.D. & E.S. Bair, 2000, Regional depressurization and its impact on the sustainability of freshwater resources in an extensive midcontinent variable-density aquifer, *Water Resources Research*, Vol. 36, no. 11. Washington, DC: American Geophysical Union, p. 3167-3177.
- Lahm, T.D., E.S. Bair & J.E. VanderKwaak, 1998, The role of salinity-derived variable-density fluid flow in the displacement of brine from shallow, regionally extensive aquifers, *Water Resources Research*, Vol. 34, no. 6. Washington, DC: American Geophysical Union, p. 1469-1480.
- Bair, E.S. & T.D. Lahm, 1996, Variations in capture-zone geometry of a partially penetrating pumping well in an unconfined aquifer, *Ground Water*, Vol. 34, no. 5, Urbana, IL: National Ground Water Association, p. 842-852.
- Lahm, T.D., E.S. Bair, & F.W. Schwartz, 1995, The use of stochastic simulations and geophysical logs to characterize spatial heterogeneity in hydrogeologic parameters, *Mathematical Geology*, Vol. 27, no. 2, New York-London: Plenum for the International Association for Mathematical Geology p. 259-278.

COMPUTATIONAL SCIENCE MODULES

- Lahm, T.D., 2002, Computational environmental science educational modules: Groundwater flow, modeling climate change, and modeling global elemental cycles. product of National Science Foundation-CCLI Grant 9952806, Computational Science Across The Curriculum.

PRESENTATIONS AT PROFESSIONAL MEETINGS

- Lahm, T.D. (August, 2008). A multi-institutional collaboration to create educational materials employing modeling and simulation across the STEM disciplines. Course, Curriculum, and Laboratory Improvement Principal Investigators Conference, Washington D.C.
- Lahm, T.D. & Voss, E. (August, 2008). Leading multi-institution collaborative projects. Workshop at the Course, Curriculum, and Laboratory Improvement Principal Investigators Conference, Washington D.C.
- Hansen, E., Karkowski, A.M. & Lahm, T.D. (June, 2008). Encouraging the transition from button pusher to research scientist. Council on Undergraduate Research 2008 National Conference, College of Saint Benedict. (*Lahm was a substitute presenter*)
- Lahm, T.D., Karkowski, A.M., Douglas, A. & Hemkin S. (June, 2008). Computational science as an organizing principle for cross-disciplinary, multi-institutional, and student-faculty collaborations. Enriching the Academic Experience of College Science Students, University of Michigan - Ann Arbor, MI.
- Karkowski, A.M. & Lahm, T.D. (May, 2008). Evaluating undergraduate research experiences: Student and faculty mentor perceptions. Association for Psychological

- Science, 20th Annual Convention, Chicago, IL.
- Lahm, T.D. (November, 2007). Innovations in undergraduate science education: Modeling and computational science in biology and chemistry. Workshop for the NSF-CCLI grant Development and dissemination of computational science educational materials and curricula at the undergraduate level.
 - Lahm, T.D. (May, 2007). Grant goals and logistics. Workshop for the NSF-CCLI grant Development and dissemination of computational science educational materials and curricula at the undergraduate level.
 - Karkowski, A.M., & Lahm, T.D. (October, 2006). Modeling undergraduate research through computational science: Successes and pitfalls. Project Kaleidoscope National Assembly, Chicago, IL.
 - Karkowski, A.M., & Lahm, T.D. (October, 2006). Transforming lives through undergraduate research. Project Kaleidoscope National Assembly, Chicago, IL.
 - Lahm, T.D. (October, 2006). A problem-based exercise exploring the importance of viscosity and fluid density using spreadsheets. Geological Society of America, 2006 36th Annual Meeting, Philadelphia, PA.
 - Lahm, T.D. (October, 2005). Establishing a computational science program – Successes and pitfalls. Oberlin Conference on Computation and Modeling 2005: The Undergraduate Arena, Oberlin College, Oberlin, OH.
 - Lahm, T.D. (October, 2005). Using Excel to address the math phobia encountered in teaching hydrogeology. Geological Society of America, 2005 36th Annual Meeting, Salt Lake City, UT.
 - Lahm, T.D. (October, 2003) Location, Location, Location: Experiences with local-based hydrogeologic research. Geological Society of America, 2003 35th Annual Meeting, Seattle, WA.
 - Karkowski, A.M., Rosell, M.C., Fournier, J.S. & Lahm, T.D. (May, 2003). Techniques for improving students' scientific writing: Peer review versus listening to another student read a paper draft. National Institute on the Teaching of Psychology conference, St. Petersburg Beach, FL.
 - Karkowski, A.M., Vakalis, I. & Lahm, T.D. (April, 2002). Integrating computational science into the undergraduate curriculum. Undergraduate Research Network, National Conference on Undergraduate Research, Whitewater, WI.
 - Lahm, T.D. (July, 2002). Using computer spreadsheets to teach undergraduates numerical modeling techniques applied to environmental geoscience problems. Proceedings of the 2nd International Conference on the Teaching of Mathematics, Chersonissos, Greece.
 - Lahm, T.D. & Karkowski, A.M. (July, 2001). Computational Science Across the Curriculum. Project Kaleidoscope 2001 Summer Institute, Snowbird Resort, Salt Lake City, Utah.
 - Lahm, T.D., Vakalis, I. & Noyes, J. (June, 2000). Computational science for the liberal arts environment. Council on Undergraduate Research National Conference, College of Wooster, Wooster, OH.
 - Lahm, T.D. (October, 2000). Using numerical models as a tool for addressing complex geologic issues in an undergraduate curriculum. Geological Society of America, 2000 32th Annual Meeting, Boulder, CO.
 - Lahm, T.D. & Bair, E.S. (October, 1999). Teaching quantitative aspects of the Environmental Geosciences with computer spreadsheets, Geological Society of America, 1999 31th Annual Meeting, Denver, CO.
 - Lahm, T.D. & Bair, E.S. (October, 1998). The use of computer spreadsheets and

multimedia in teaching quantitative aspects of Hydrogeology. Geological Society of America, 1998 30th Annual meeting, Boulder, CO.

- Lahm, T.D. & Bair, E.S. (October, 1997). The influence of regional depressurization in a salinity-derived variable-density groundwater environment, Geological Society of America, 1997 29th Annual Meeting, Boulder, CO.
- Lahm, T.D. & Bair, E.S. (October, 1997). The role of salinity-derived variable-density fluid flow in the displacement of brine from a shallow, regionally extensive aquifer, Geological Society of America, 1997 29th annual meeting, Boulder, CO.
- Lahm, T.D. & Bair, E.S. (October, 1996). The role of variable-density fluid flow in regional hydrodynamics of midcontinent sedimentary basins. Geological Society of America, 28th annual meeting, Boulder, CO.
- Bair, E.S., Finton, C.D., Lahm, T.D. & McClenahan, L.M. (October, 1996). On the scale dependency of permeability and anisotropy. Geological Society of America, 28th annual meeting, Boulder, CO.
- Bair, E.S. & Lahm, T.D. (October, 1995). Variations in capture-zone geometry of partially penetrating pumping wells in unconfined aquifers. Geological Society of America, 1995 27th annual meeting, Boulder, CO.
- Lahm, T.D., Bair, E.S. & Schwartz, F.W. (May, 1993). Determination of the hydraulic-conductivity distribution in the Milk River Aquifer, Alberta, Canada, using two-dimensional stochastic simulations, *EOS*, Vol. 74, no. 16, AGU 1993 spring meeting, Washington, DC: American Geophysical Union, p. 153-154.
- Lahm, T.D. (April, 1989). Marine boring of carbonate hard substrates on San Salvador Island, The Bahamas. Second Keck Research Symposium in Geology, Colorado College, Vol. 2, p. 32-35.

INVITED PROFESSIONAL PRESENTATIONS

- Oberlin College, Oberlin Conference on Computation and Modeling 2005: *The Undergraduate Arena, Computational Science Across the Undergraduate Curriculum*, 2005.
- University of Nebraska, Lincoln, Teaching Hydrogeology in the 21st Century workshop, *Using EXCEL to Ease the Math Phobia Encountered in Teaching Hydrogeology*, 2005.
- Ohio Wesleyan University, Science Lecture Series, *Water, Rocks and Fighting Scots*, 2004.
- Marietta College, Physics Colloquium, *Physics through a Hydrogeologist's Eyes – Lessons from the Environmental Sciences*, 2003.
- College of Wooster, Geology Colloquium, *The Meeting of the Waters- Measuring Groundwater at the Edge*, March 2002.
- Capital University Fall Faculty Forum, co-presenter, *Well Being of Our Environment*, Bexley, Ohio, August 2001.
- University of Akron, *Computational Science Curriculum*, Interdepartmental Seminar, March 2001.
- Daughters of the American Revolution, *Environmental Impact of Urban Sprawl*, Cleveland, Ohio, March 1999.
- Intercollegiate and Governmental Meeting, *Regional Water-Level Declines in the Silurian-Devonian Carbonate Aquifer in Central and Northwestern Ohio*, July 1997.
- American Water Work Association Meeting, *Possible water quality impacts of regional depressurizing of the Silurian-Devonian Carbonate aquifer*, Columbus, Ohio, 1997.

UNDERGRADUATE STUDENT RESEARCH PROJECTS MENTORED

- Amanda Huntsberry. (April 2009). The Carbon Footprint of Capital University. 13th Annual Symposium on Undergraduate Scholarship. (*co-mentored with Alan Stam*)
- David W. Pickering. (April 2009). The Pickens Plan: Good for America or T. Boone Pickens? 13th Annual Symposium on Undergraduate Scholarship. (*co-mentored with Kevin R. Griffith*)
- Corey J. Hinkle & Ryan M. Griffin. (April 2009). Nutrient Contamination and Wetland Effects Near Logan, Ohio: A Pilot Study. 13th Annual Symposium on Undergraduate Scholarship. (*William J. Clark, Margaret E. Ginn-Pease co-mentors*)
- Ryan Griffin & Corey Hinkle (April, 2008). The Primmer Outdoor Classroom. 12th Annual Symposium on Undergraduate Scholarship. (*co-mentored with Alan Stam*)
- Chelsea Ridenour (April, 2008). South Well Field Model Visualization. 12th Annual Symposium on Undergraduate Scholarship.
- Naomi Hake (April, 2007). The Effects of Quarrying on Wells in Southern Franklin County, Ohio. Ohio Academy of Science Annual Meeting, *The Ohio Journal of Science*, Vol. 107 no. 1. Cleveland State University, Cleveland, OH. and 11th Annual Symposium on Undergraduate Scholarship.
- Michael S. Vail, Robert Johnson, & Daisy Sigman (April, 2006). Dammed if We Do, Dammed if We Don't. 10th Annual Symposium on Undergraduate Scholarship. (*co-mentored with Alan Stam*)
- Michael S. Vail, Robert Johnson, & Daisy Sigman, (April, 2006). Capital University Green Building Proposal. 10th Annual Symposium on Undergraduate Scholarship. (*co-mentored with Alan Stam*)
- Byrom, J. (April, 2004). Assessment of the Hydrological Effects of Urbanization on the Lower Alum Creek Watershed within Central Ohio. Ohio Academy of Science Annual Meeting, *The Ohio Journal of Science*, Vol. 104 no. 1. University of Toledo, Toledo, OH. and National Conference on Undergraduate Research in Indianapolis, Indiana.
- James, M.A. (April, 2003). Baseflow Analysis of the Upper Blacklick Creek in Central Ohio. Ohio Academy of Science Annual Meeting, *The Ohio Journal of Science* Vol. 103 no.1. and 7th Annual Symposium on Undergraduate Scholarship.
- James, M.A. (April, 2003). Genetic Use Restriction Technology. 7th Annual Symposium on Undergraduate Scholarship.
- Rhoad, A. (April, 2003). The Effect of Wastewater Treatment Effluent on Antimicrobial Resistance in Central Ohio Stream Water. 7th Annual Symposium on Undergraduate Scholarship. (*co-mentored with Alan Stam*)
- Starner, R., Roepcke, J., Lichtenberger, D. (April, 2003). Comparing Land Use to Dissolved Oxygen Levels. 7th Annual Symposium on Undergraduate Scholarship. (*co-mentored with Erica Brownstein*)
- Carse, N.B. (April, 2002). Examination of the Relation of Nitrate Loads and Land Use in the Big Darby Creek and Alum Creek Watersheds in Central Ohio. National Conference on Undergraduate Research, 2002 annual meeting, Whitewater, WI. and Ohio Academy of Science Annual Meeting, *The Ohio Journal of Science* Vol. 102 no.1. and the 6th Annual Symposium on Undergraduate Scholarship.
- Hudgins, A.P. (April, 2002). The Determination of Groundwater Discharge to The Hellbranch Run Tributary On the Darby Till Plain. National Conference on Undergraduate Research, 2002 annual meeting, Whitewater, WI. and Ohio Academy of Science Annual Meeting, *The Ohio Journal of Science* Vol. 102 no.1. and the 6th Annual Symposium on Undergraduate Scholarship.
- Badgerow, K.L. (April 2001). Comparative Study of Nutrient Loads Between Two

Tributary Watersheds To Lake Erie. 5th Annual Symposium on Undergraduate Scholarship.

- Heironimus, J.D. (April, 2001). Hydrogeologic Characteristics of the Granville Aquifer, National Conference on Undergraduate Research, 2001 annual meeting, Lexington, KY.
- Jordan, S. (April, 2001). Water Quality Study of Blacklick Creek Focusing on Blacklick Estates Waste Water Treatment Plant, Ohio Academy of Science Annual Meeting, *The Ohio Journal of Science*, Vol. 101 no. 1. and 5th Annual Symposium on Undergraduate Scholarship.
- Sherman, S. (April, 1999). Chemical Characterization of Wastewater Effluent on the Big Darby Creek Water Quality. 3rd Annual Symposium on Undergraduate Scholarship.

REFERENCES: Available on Request