

Jonathan W. Peterson

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Department of Geological and Environmental Science
Hope College
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Education:

Ph.D., Geology, University of Chicago, 1989
A.B., Hope College, Holland, Michigan, 1984

Experience:

Chairperson - Department of Geological and Environmental Sciences	(2001-pres.)
Associate Professor of Geology & Environmental Science, Hope College	(2000-pres.)
Assistant Professor of Environmental Science, Hope College	(1994-2000)
Remediation Coordinator, Amoco Oil Company	(1992-94)
Responsibilities involved the regulatory, scientific and technological coordination of environmental cleanups of contaminated soil and ground water at Amoco refinery, terminal and pipeline sites across the country.	
Development Geologist, Amoco Production Company	(1990-92)
The focus of this position was the efficient and economic development of south Texas natural gas fields.	
Exploration Geologist, Amoco Production Company	(1989-90)
The objective of this position was the identification of economic opportunities for wildcat oil and natural gas drilling onshore Gulf Coast.	

Honors:

Sigma Xi	(University of Chicago)
Phi Beta Kappa	(Hope College)
Mortar Board National Honors Society	(Hope College)

Selections:

Hope College Faculty Representative to Technos Intl. University, Tokyo, Japan	(June 1999)
Project Kaleidoscope (PKAL) Faculty for 21st Century	(Nov. 1995)

Membership:

Geological Society of America
American Geophysical Union
National Ground Water Association
Council on Undergraduate Research
Michigan Academy of Sciences, Arts & Letters

Publications: (* indicates undergraduates)

- Peterson, Jonathan W., O'Meara, Theresa A*, and Seymour, Michael D., (2007), Experimental investigation of cephapirin adsorption to quartz filter sands and dune sands: effects of grain size, mineralogy, and low organic carbon content, submitted to *Hydrogeology Journal* (in revision) .
- Peterson, Jonathan W., Johnson, Eric M*, Cencer, Jennifer L*, and Thomason, Carrie J.*; (2006), Physiochemical conditions of Folsomia candida occurrence in a shallow coastal Lake Michigan aquifer, *Environmental Geology*, vol. 49, no. 8, p. 1125-1138 .
- Peterson, Jonathan W.; (2004), "Geology/Earth Science" in The College Board Book of Majors, 1st Edition, T. Vandenberg, Edt., Published by College Entrance Examination Board, New York, 1252 pgs.
- Peterson, J.W. and Murray, K.S., (2003), Grain-size heterogeneity and subsurface stratification in air sparging: laboratory experiments-field implications. *Environmental and Engineering Geoscience Journal*, vol IX, No.1, pp.71-82.
- Peterson, J.W., Murray, K.S., Tulu, Y.E.*, Peuler, B.D.* and Wilkens, D.A.*, (2001), Air-flow geometry in air-sparging of fine-grained sands, *Hydrogeology Journal*, v. 9, p. 168-176.
- Bodenbender, B.E., Hansen, E.C., Peaslee, G.F., and Peterson, J.W., (2000), The environmental science minor: a disciplinary approach to interdisciplinary studies with a grounding in undergraduate research: *Council on Undergraduate Research (CUR) Quarterly*, v .21, n. 2, p. 72-76.
- Peterson, J.W. DeBoer, M.J.* and Lake, K.L.*, (2000), A laboratory simulation of toluene cleanup by air sparging of water-saturated sands, *Journal of Hazardous Materials: Special Issue on Air Sparging* 72, 167-178.
- Peterson, J.W., Lepczyk, P.A.*, and Lake, K.L.* (1999), Effect of sediment size on area of influence during ground water remediation by air sparging: a laboratory approach: *Environmental Geology*, v. 38, n 1, p.1-6.
- Peterson, J.W., Lepczyk, P.A.*, VandenHeuvel, B.A.*, Lake, K.L.*, and Shull, K.A.* (1999), An experimental look at air-flow geometry in sediments and its role in cleanup of contaminated ground water: *Michigan Academician*, v. 31, n 1, p. 45-57.
- Peterson, J.W., (1999), Numerical stewardship of the environment: *Perspectives: A Journal of Reformed Thought*, v. 14, n. 1, p. 19-20.
- Peterson, J.W. and Bouma-Prediger, S., (1998), Ethical analysis of risk-based environmental cleanup: a distributive justice approach: *Proteus, A Journal of Ideas*, Fall 1998, Humans

- and the Environment, v. 15, n 2, p. 19-24.
- Hansen, E.C. and Peterson, J.W., (1996), Undergraduate research in environmental science & environmental science education: a reconnaissance survey: *Council on Undergraduate Research (CUR) Quarterly*, v.16, n. 3, p. 150-156.
- Peterson, J.W., Chacko, T. and Kuehner, S.M., (1991), The effects of fluorine on the vapor-absent melting of phlogopite + quartz: implications for deep-crustal processes: *American Mineralogist*, 76, p. 470-476.
- Peterson, J.W. and Newton, R.C., (1991), CO₂-enhanced crustal melting: a possible link among porphyritic granite, lamprophyres and gold deposits, in *Greenstone Gold and Crustal Evolution*, Robert, F., Sheahan, P.A., and Green, S.B., eds., *Geological Association of Canada Mineral Deposits Division, NUNA Conference Volume*, p. 67-72.
- Peterson, J.W. and Geiger, C.A., (1990), The Hardwood Gneiss: evidence for high P-T Archean Metamorphism in the Southern Province of the Lake Superior Region: *Journal of Geology*, 98, p. 273-281.
- Goldsmith, J.R. and Peterson, J.W., (1990), Hydrothermal melting behavior of KAlSi₃O₈ as microcline and sanidine: *American Mineralogist*, 75, p. 1362-1369.
- Skirius, C.M., Peterson, J.W. and Anderson, A.T., (1990), Homogenizing rhyolitic glass inclusions from the Bishop Tuff: *American Mineralogist*, 75, p. 1381-1398.
- Peterson, J.W. and Newton, R.C., (1990), Experimental biotite-quartz melting in the KMASH-CO₂ system and the role of CO₂ in the petrogenesis of granites and related rocks: *American Mineralogist*, 75, p. 1029-1042.
- Peterson, J.W. and Newton, R.C., (1989), Reversed experiments on biotite-quartz-sanidine melting in the system KMASH: implications for crustal anatexis: *Journal of Geology*, 97, p. 465-485.
- Peterson, J.W. and Newton, R.C., (1989), CO₂-enhanced melting of biotite-bearing rocks at deep-crustal pressure and temperature conditions: *Nature*, 340, p. 378-380.
- Chacko, T., Ravindra Kumar, G.R. and Peterson, J.W., (1988), Water activities in the Kerala khondolite belt, in Workshop on the Deep Continental Crust of South India: *Journal of the Geological Society of India*, 31, p. 16-18.

Abstracts (Published & Presented at Scientific Meetings, * indicates undergraduates):

- Brisbin, A.M. and Peterson, J.W., (2006), *The Association of Fine-particle Mineralogy and Folsomia candida occurrence in a Coastal Lake Michigan Aquifer*: Annual Meeting of the Geological Society of America, Philadelphia, PA, October 22-25, 2006.
- Omeara, T.A.*, Peterson, J.W., and Seymour, M.D., (2006), *Cephapirin Adsorption in Sand-Iron Systems: Effects of Hematite, Magnetite and Zero-valent Iron*: Annual Meeting of the Geological Society of America, Philadelphia, PA, October 22-25, 2006.
- Dreyer, A. P.*, Sullivan, T. J., and Peterson, J.W., (2006), *Using Genetic Characterization of a Groundwater Arthropod As A Potential Method To Identify Cross-gradient Migration Pathways In Aquifers*: Annual Meeting of the Geological Society of America, Philadelphia, PA, October 22-25, 2006.

- Eric M. Johnson*, Carrie J. Thomason*, Jennifer L. Cencer*, and Jonathan Peterson., (2006), *Folsomia candida Occurrence in a Shallow Coastal Michigan Aquifer*: Annual Meeting of the Michigan Academy of Sciences, Arts and Letters, Oakland University, Rochester, MI , March 3, 2006
- Theresa A. O'Meara*., Jonathan W. Peterson. and Michael D. Seymour., (2006), *Experimental Investigation of Antibiotic Adsorption in Sand-Iron Systems*: Annual Meeting of the Michigan Academy of Sciences, Arts and Letters, Oakland University, Rochester, MI , March 3, 2006,
- O'Meara, T.A.*, Seymour, M.D., and Peterson, J.W., (2005), *Experimental Investigation of Cephapirin Adsorption to Sands: Implications for Transport of Antibiotics in Groundwater*: Annual Meeting of the Geological Society of America, Salt Lake City, UT, October 15-19, 2005, Abstracts w/Programs, v. 37, n.7, p. 169.
- Cencer, J.L.*, Johnson, E.M.*, Thomason, C.J.*, and Peterson, J.W., (2005), *Physical Conditions of Folsomia candida occurrence in shallow groundwater*. Annual Meeting of the Geological Society of America, Salt Lake City, UT, October 15-19, 2005.
- Peterson, Jonathan W. (2004), *The Savvy Traveler: Learning Language & Customs of Interdisciplinary Research*: Invited presentation in a CUR/GSA Special Session-Integrative Interdisciplinary Undergraduate Research in the Earth Sciences Annual Meeting of the Geological Society of America, Denver, Colorado, November 7-10, 2004.
- Peterson, Jonathan W.; Bassman*, Jennifer; Cencer*, Jennifer; and Johnson*, Eric; (2004), Analysis of Insect Occurrence in Groundwater in a Coastal Lake Michigan Aquifer: Poster presentation at Annual Meeting of the Geological Society of America, Denver, Colorado, November 7-10, 2004. [Note: * = student co-authors, Presentation made by Jennifer Cencer, Eric Johnson and Jon Peterson]
- Halloran, D.J. and Peterson, J.W., (2004) Analysis of Onychiuridae Occurrence in Groundwater Beneath the Hope College Campus, *Michigan Academy of Science, Arts and Letters, Annual Meeting*, March 5, 2004.
- Peterson, Jonathan W., Weiss*, William J., Knapman*, Michelle Y., and Ingersoll*, Erin N., (2003), *Research Offspring in Your Own Backyard: The Campus Ground Water Project*, Invited presentation in a CUR/GSA Special Session, Annual Meeting of the Geological Society of America, Seattle, Washington, November 2-5, 2003. [Note: * = student co-authors, Presentation made by Michelle Knapman and Jon Peterson]
- Peterson, J.W., (2002), Phase relations in undergraduate research: seeking equilibrium in a 3-component system. (Abstract & Presentation), *Geological Society of America Annual Meeting*, October 27-30, 2002, Denver, Colorado.
- Peterson, J.W. and Northup, A*. (2001), Particle-size heterogeneity and subsurface stratification in air sparging: laboratory experiments-field implications (abstract&presentation): *Geological Society of America Annual Meeting*, Boston, Massachusetts, November 5-8, 2001.
- Murray, K.S. and Peterson, J.W., (2001), Groundwater and transport of phosphorous from an agricultural watershed into Lake Michigan (abstract): *The Shiga-Michigan Joint Symposium: Toward Sustainable Management of Lake-Watershed Ecosystems*, University of Shiga Prefecture, Japan, July 19-20, p. 55.
- Murray, K.S. and Peterson, J.W., (2001), Groundwater and transport of phosphorous from an agricultural watershed into Lake Michigan (abstract): *International Association for Great Lakes*

- Research Annual Meeting*, University of Wisconsin-Green Bay, Green Bay, Wisconsin, June 10-14, 2001, p.99.
- Peterson, J.W., (2001), The role of GIS in undergraduate liberal arts education (presentation): NSF-AIRE Roundtable Workshop, *Using GIS in Earth and Environmental Sciences Curriculum: Who is Doing What*, University of Michigan-Dearborn, April 21, 2001.
- Brondyke, K.L.*, Lowe, C.L.*, Nash, D.G.*, Van Oort, M.*, and Peterson, J.W., (2001), Determination of the extent and sources of pollution in the Macatawa Watershed through indicator bacteria analysis, *Michigan Academy of Science, Arts and Letters, Annual Meeting*, March 9, 2001.
- Ide, N.D.*, Petersen, A.D*., Rypma, S.J.*, and Peterson, J.W., (2001), Aqueous phosphate uptake rates in Western Michigan wetland plants, *Michigan Academy of Science, Arts and Letters, Annual Meeting*, March 9, 2001.
- Peterson, J.W., Tulu, Y.I.*, Peuler, B.D.*, and Murray, K.S., Flow geometry in air sparging of fine-grained sands (abstract): *Geological Society of America Annual Meeting*, Abstracts with Programs, v. 32, n. 7, Reno, Nevada, November 9-18, 2000.
- Bodenbender, B.E., Hansen, E.C., Peaslee, G.F. and Peterson, J.W., (2000), The environmental science minor: a disciplined approach to interdisciplinary studies, CUR Meeting, 6/2000
- Peterson, J.W., DeBoer, M.J.*, Peuler, B.D.*, Tulu, Y.I.*, and Roy, H.R.*, (1999), An experimental simulation of volatile organic compound remediation by air sparging of water-saturated sands (abstract): *Geological Society of America Annual Meeting*, Denver, Colorado, October 27, 1999.
- Peterson, J.W., Peaslee, G.F., and Hansen, E.C., (1999), Incorporating undergraduate research into an interdisciplinary environmental science program (abstract): *Geological Society of America Annual Meeting*, Denver, Colorado, October 26, 1999.
- Roy, H.R.*, Seramur, E.L.*, Peterson, J.W., and Bouma-Prediger, S.C., (1999), An undergraduate course in applied environmental ethics: an integrated project between natural sciences and the humanities (abstract): *Geological Society of America Annual Meeting*, Denver, Colorado, October 27, 1999.
- DeBoer, M.J* and Peterson, J.W., (1999), Toluene diffusion in water-saturated sediments (abstract): *Michigan academy of Sciences, Arts and Letters, Annual Meeting*, March 12, 1999.
- Peterson, J.W., Peaslee, G.F., and Hansen, E.C., (1998), The research seminar: an integrated capstone to an environmental science curriculum (abstract): *Geological Society of America Annual Meeting*, Toronto, Ontario, October 27, 1998.
- Lake, K.L* and Peterson, J.W. (1998) Experimental determination of the area influenced by sparge air in different grain size sediments, (abstract), *Geological Society of America Annual Meeting*, Toronto, Ontario, October 1998.
- Peterson, J.W. Lepczyk, P.A.*, and Shull, K.A.*, (1997), Air-flow geometry in sediments: an experimental look at air sparging: *Michigan Academy of Science, Arts and Letters, Annual Meeting*, March 21, 1997.
- Peterson, J.W., Lepczyk, P.A*., and Shull, K.A.*, (1996), Laboratory investigation of grain size versus flow geometry & angle of influence during air sparging of saturated sediments: *Geological Society of America Annual Meeting*, Denver, Colorado, October 30, 1996.
- Hansen, E.C., Peterson, J.W., and Peaslee, G.F., (1996), The environmental science minor at Hope College: providing an interdisciplinary framework for future specialists: *Geological*

- Society of America Annual Meeting*, October 30, 1996.
- Peterson, J.W. and VandenHeuvel, B.A.*, (1996), Laboratory investigation of air sparging: an experimental technique for identifying air flow pathways in a saturated porous medium: *Fourth Symposium of Michigan: Its Geology and Geological Resources, Michigan Department of Environmental Quality, Michigan Geological Survey Division, and Michigan Basin Geological Society Proceedings*, Lansing, Michigan, March 14-15, 1996.
- Chacko, T., Peterson, J.W., and Kuehner, S.M., (1990), Reversed experiments constraining the vapor-absent melting of the assemblage F-OH phlogopite+quartz: *Geological Association of Canada/Mineralogical Association of Canada Annual Meeting*, Vancouver, British Columbia, May 1990.
- Peterson, J.W. and Newton, R.C., (1990), Experimental CO₂-melting of granite and its bearing on the Archean gold association: *Geological Association of Canada/ Society of Economic Geologists, Proceedings from NUNA Research Conference on Greenstone Gold and Crustal Evolution*, p. 70-71.
- Irwin, J.J., Bohlke, J.K. and Peterson, J.W., (1989), Microanalysis of halogens (Cl, Br, I) and noble gas isotopes (Ar, Kr, Xe) in synthetic fluid inclusions: *Geological Society of America, Abstracts with Programs*, v. 21, n. 26, p.285.
- Skirius, C.M., Peterson, J.W. and Anderson, A.T., (1989), Pre-eruptive volatile content of Bishop Tuff ash flow magma: results of glass inclusion homogenization experiments: *Geological Society of America, Abstracts with Programs*, v. 21, n. 26, p.270.
- Goldsmith, J.R. and Peterson, J.W., (1989), Water-saturated melting behavior of microcline and sanidine: *Geological Society of America, Abstracts with Programs*, v.21, n. 26, p.157.
- Peterson, J.W. and Newton, R.C., (1989), Melting of phlogopite-quartz-sanidine at reduced activity of water: *EOS, American Geophysical Union Transactions*, 70, n. 15, p.507.
- Peterson, J.W. and Newton, R.C., (1989), Melting of phlogopite-quartz-sanidine in the presence of H₂O-CO₂ fluid: Implications for granites and charnockites: *Geological Society of America, Abstracts with Programs*, v.21, n. 26, p.158.
- Peterson, J.W., Chacko, T. and Kuehner, S.M., (1989), Petrographic and microprobe study of isolated iron-formation lense near Republic, Michigan: a search for high-grade, pre-Penokean metamorphism: *35th Annual Meeting of the Institute on Lake Superior Geology*, Duluth, Minnesota, May 3-6, 1989.
- Peters, M.T., Peterson, J.W. and Geiger, C.A., (1988), High P-T granulite in the Upper Peninsula of Michigan-Lake Superior Region: *Geological Society of America Abstracts with Programs*, 20, p. 7.
- Peterson, J.W. and Newton, R.C., (1988), Experimental constraints on the vapor-absent melting of phlogopite + quartz: *EOS, American Geophysical Union Transactions*, 69, n. 16, p. 498.
- Peterson, J.W. and Newton, R.C., (1988), Experimental P-T constraints on the phlogopite-quartz-sanidine-enstatite-vapor-liquid invariant point: *Geological Society of America Abstracts with Programs*, 20, p. 7.
- Peterson, J.W. and Geiger, C.A., (1988), Two generations of garnet growth in the Hardwood Gneiss, Dickinson County, Michigan: *34th Annual Meeting of the Institute on Lake Superior Geology*, May 1988, Marquette, Michigan.

- Peterson, J.W. and Newton, R.C., (1987), Reversed biotite + quartz melting reactions: *EOS, American Geophysical Union Transactions*, 68, n. 16, p. 451.
- Peterson, J.W. and Geiger, C.A., (1987), The Hardwood Gneiss-a basic two-pyroxene granulite: *33rd Annual Meeting of the Institute on Lake Superior Geology*, 33, 1, p. 55.

Invited Talks and Presentations:

- April 21, 2001, Workshop Speaker for NSF-AIRE Roundtable, University of Michigan-Dearborn
- February 7, 2000, Seminar Speaker for Geology Department Seminar, Western Mich. Univ.
- November 16, 1999, Seminar Speaker for Geology Department Seminar, Calvin College.
- March 18, 1999, Seminar Speaker for Geology Department Seminar, Wheaton College.
- November 20, 1998, Seminar Speaker for Natural Science Division Seminar, University of Michigan-Dearborn.
- November 16, 1998, Seminar Speaker for Geology Department Seminar, Grand Valley State University.
- September 25, 1998, Speakers at Faculty and Administrative Staff Luncheon, with Steve Bouma-Prediger.
- May 1, 1998, Speaker at Hudnall Mini-Symposium, Department of Geophysical Sciences, University of Chicago.
- October 14, 1996, Presentation to Hope Academy of Senior Professionals
- April 20, 1995, Speaker at North Park Theological Seminary, 25th Anniversary of Earth Day Service.

Scholarly Reviews:

- 2006 Manuscript Review for American Geophysical Union publication *Water Resources Journal*, Joseph Ryan, Associated Editor.
- 2005: Manuscript Review, for American Geophysical Union publication *Water Resources Journal*, Joseph Ryan, Associated Editor.
- 2002: NSF Proposal Review, Hydrologic Sciences, L. Douglas James-Program Officer
- 2000: NSF Proposal review of "*Modeling Contaminant Transport Across Hydrologic Boundaries*"
- 2000: Manuscript review of "*Cleanup of Chemical Spills Using Air Sparging*," submitted for publication in The Handbook of Hazardous Materials Spills Technology
- 1998: Manuscript review of "*Particle size and Chemical Control of Heavy Metals in Bed Sediment from the Rouge River, Southeast Michigan*," submitted for publication in Environmental Science & Technology
- 1997: Book manuscript review of "*N.L. Bowen and Crystallization-Differentiation: The Evolution of a Petrologic Theory*," by Davis A. Young, published by the Mineralogical Society of America
- 1996: NSF Proposal review of "*Evaluation and Refinement of Geophysical Methods to Determine Variation in the Depth to the Ground water Table and Soil Moisture*"
- 1996: NSF Proposal review of "*Proposal for Integrated Modeling of Interacting Microbial, Geochemical and Fluid Flow Processes in Subsurface Bioremediation*"
- 1996: Manuscript review of "*Phlogopite Stability in the Silica-Saturated and Over-Saturated Portion of the System KAlO₂-MgO-SiO₂-H₂O: New Data and a Reappraisal of Phase Relations to 1.5*"

Gpa," submitted for publication in American Mineralogist

Grant Proposals Funded or Pending:

- Mohonk Preserve-Hope College Collaborative Research Grant (\$10,000), Jonathan W. Peterson (PI) and Terrence J. Sullivan: *Genetic Characterization of Ground Water Collembola in the Shawangunk Conglomerate: Using Insect Mobility as a Potential Bioindicator in Fractured Bedrock Aquifers* -Summer 2007
- Cooperative Faculty Development/Student Research Grant (\$12,000), Edward Hansen, Jonathan Peterson, Amanda Brisbin, and Carrie Thomason, *X-Ray Diffraction Analysis of Coastal Lake Michigan Sand and Clay Depositis: Implications for Dune History and Groundwater Ecology*, Matthew and Anne Wilson Faculty Development fund -Summer 2006.
- Michigan Space Grant Consortium Research Seed Grant Proposal: *Looking for Antibiotics, Estrogens, and their Biological Effects in Surface and Ground Water in a Coastal Lake Michigan Watershed*: Jonathan W. Peterson (PI), \$5000, submitted on 11/20/03.
- American Waterworks and Wastewater Association (AAWA) Fellowship for Water Quality and Treatment Program: *Looking for Antibiotics, Estrogens, and their Biological Effects in Surface and Ground Water in a Coastal Lake Michigan Watershed*: Jonathan W. Peterson (PI) and Jennifer L. Bassman (student) \$2000, submitted on 12/09/03.
- NSF-GOALI (Grant Opportunities for Academic Liaisons with Industry) Proposal for \$132,728 (June 1, 1999 - June 1, 2001) entitled, "*An Evaluation of the Effectiveness of Air Sparging Techniques in Non-Homogeneous Natural Sediments*," by joint principle investigators Jonathan W. Peterson (PI-Hope College) and Kent S. Murray (PI-U of Mich.-Dearborn), with Daniel T. Rogers (Co-PI, Clayton Environmental Consultants, Inc.) and Klaus Rathfelder (Co-PI, University of Mich.-Ann Arbor). Hope College portion of the grant = \$37,777.
- NSF-ILI (Instrumentation and Laboratory Improvement) Proposal for \$27,653 (June 1998 - June 2000) entitled, "*Environmental Science Instrumentation for Interdisciplinary Undergraduate Research Teams*," by Brian E. Bodenbender (PI), Graham F. Peaslee (Co-PI) and Jonathan W. Peterson (Co-PI)
- MACC (Macatawa Area Coordinating Council) Proposal for \$3500 (Summer 1998) for summer research student internship for watershed research, by Jonathan W. Peterson and Graham F. Peaslee.
- PKAL (Project Kaleidoscope) Visiting Scholars proposal for \$1000 (Summer 1996) for summer research student site visits by Jonathan W. Peterson and Kent Murray of University of Michigan-Dearborn.
- HHMI (Howard Hughes Medical Institute) Proposal for \$10,000 (Summer 2005) entitled, *Identification, Quantification and Fate of Antibiotics and Estrogens in Surface and Ground Water*: by Jonathan W. Peterson and Michael D. Seymour (Chemistry Department).
- Jacob E. Nyenhuis Cooperative Faculty/Student Research Grant: *Looking for Antibiotics, Estrogens, and Some Potential Biological Effects in Surface and Ground Water in the Macatawa Watershed*: by Jonathan W. Peterson (Faculty) and Eric M. Johnson (student), \$6000, submitted on 12/19/03.
- Hope College Faculty Development Grant, \$3600, *Assessing Ground Water Transport of*

- Nutrients in the Lake Macatawa Watershed*, by Jonathan W. Peterson.
- NSF-AIRE Curriculum Proposal for \$6000 (Summer 1999) for development of May Term course, "Applied Environmental Ethics," by Jonathan W. Peterson and Steven Bouma-Prediger (Religion Department).
- HHMI (Howard Hughes Medical Institute) Proposal for \$5000 (Summer 1998) entitled, "The Effectiveness of Channelized Air Flow in Reducing Concentrations of Volatile Organic Compounds in Fine-Grained, Water-Saturated Sediments," by Jonathan W. Peterson
- Wilson Foundation Cooperative Faculty/Student Research Proposal for \$4800 (Summer 1997) entitled, "Implementation and Effectiveness of Risk-Based Environmental Cleanup in Michigan," by Jonathan W. Peterson and Jessica R. Black

Meetings Attended (since 1994):

- 2006 Michigan Academy of Sciences, Arts and Letters Annual Meeting, Oakland University
- 2005 Geological Society of America Annual Meeting, Salt Lake City, Utah
- 2005 Geosciences in Global Ministry, Wheaton College
- 2004 Michigan Academy of Sciences, Arts and Letters Annual Meeting, Grand Valley State University
- 2003 Geological Society of America Annual Meeting, Seattle, Washington
- 2002 Geological Society of America Annual Meeting, Denver, Colorado
- 2001 NSF-AIRE Roundtable Workshop, *Using GIS in Earth and Environmental Sciences Curriculum: Who is Doing What*, University of Michigan-Dearborn, April 21, 2001
- 2001 Michigan Academy of Sciences, Arts and Letters Annual Meeting, University of Michigan-Dearborn
- 2000 Geological Society of America Annual Meeting, Reno, Nevada
- 2000 Michigan Academy of Sciences, Arts and Letters Annual Meeting, Saginaw Valley State University
- 1999 Geological Society of America Annual Meeting, Denver, Colorado
- 1999 Project Kaleidoscope National Assembly, 10th Anniversary, Washington, D.C.
- 1999 Michigan Academy of Sciences, Arts and Letters Annual Meeting, Grand Valley State University
- 1998 Geological Society of America Annual Meeting, Toronto, Ontario, Canada
- 1998 Project Kaleidoscope Roundtable on Facilities for the Future, St. Paul, Minnesota
- 1998 Michigan Academy of Sciences, Arts and Letters Annual Meeting, Alma College
- 1997 Project Kaleidoscope National Assembly, Houston, Texas
- 1997 Michigan Academy of Sciences, Arts and Letters Annual Meeting, Calvin College
- 1996 Geological Society of America Annual Meeting, Denver, Colorado
- 1996 Project Kaleidoscope National Assembly, Kansas City, Missouri
- 1996 Conference on Growing Communities and Quality of Life: Environmental Ramifications of Urban Development, Grand Rapids, Michigan
- 1996 Project Kaleidoscope Roundtable on the Reaserch Rich Environment, Hope College
- 1996 Fourth Symposium of Michigan: Its Geology and Geological Resources, Michigan Department

- of Environmental Quality, Michigan Geological Survey Division, and Michigan Basin Geological Society Proceedings, Lansing, Michigan
- 1995 Geological Society of America Annual Meeting, New Orleans, Louisiana
- 1995 Project Kaleidoscope National Assembly, Minneapolis, Minnesota
- 1994 Chicago Conference on Human Health and the Environment- United Nations Environment Program and Physicians for Social Responsibility, Chicago, Illinois

Courses Taught (w/ Hope College Course Number):

- First Year Seminar (IDS 100)
- Physical Geology (GES 101)
- Environmental Geology (GES 108)
- Environmental Geology Lab (GES 109)
- Planet Earth (GEMS 157/GES 100)
- Planet Earth Lab (GEMS 157/GES 100)
- Earth Environmental Systems-I (GES 211)*
- Laboratory Methods in Environmental Science (GES 220)
- Mineralogy & Mineralogy Lab (GES 241)
- Field Course in Environmental Geology of the Pacific Northwest (GES 295)
- Petroleum and People (GEMS 295)
- Environmental Public Policy (GES 310)*
- Petrology and Petrography Lab (GES 332)
- Regional Geology - Arizona (GES 341)
- Advanced Environmental Research Seminar (GES 401)*
- Environmental Geochemistry (GES 430)*
- Hydrogeology (GES 450)
- Senior Seminar: God, Earth and Ethics (IDS 495)*

* indicates team-taught course

Service:

Committees

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| 1) | Environmental Science Task Force | 1994-95 |
| 2) | Faculty Position Search Task Force | 1995 |
| 3) | Campus Beautification Committee | 1995 |
| 4) | PKAL Research-Rich Environment Conference-Planning Committee
Planning Group | 1996 |
| 5) | Religious Life Committee | 1996-7 |
| | Chair Religious Life Committee | 1998 |
| 6) | Hope College Elder Hostel Committee | 1995 |
| 7) | New Science Building Committee | 1995-97 |

8)	Architect Selection Task Force	1998
9)	New Science Building Program Committee	1998-2002
8)	Critical Issues Symposium Committee	2003
9)	Dean of Chapel Search Committee	2003-04
10)	Chair-Strategic Thinking Committee for Spiritual Life	2005
11)	Dean of Natural Sciences Search Committee	2005
12)	Greek Judicial Board	2005-06

On-Campus other than Committees

1)	College representative for the Morris K. Udall Scholarship Program	1995-2001
2)	Geological & Environmental Science Department External Review	1997
3)	Political Science Department External Review	1997
4)	Hughes Science Project for Under-represented Students	1996, 1999
5)	Departmental Library Liaison	1995-96, 02
6)	Participation in Senior Day	1995-96
7)	Participation in High School Science Day	1994-2003
8)	Panelist for Academic Support Center	1995
9)	Joyce Foundation Summer Workshop for High School Science Students	1995
10)	Geological & Environmental Science Department External Review 2004	
11)	Secretary-Hope College Chapter of Sigma Xi	2005-07

Off-Campus

1)	Member of the Ottawa County Environmental Health Board of Appeals	2003-pres.
2)	Elder-Immanuel Baptist Church	2006-pres.
3)	Co-Chair - NSF-AIRE Roundtable <i>Workshop-Using GIS in Earth and Environmental Sciences Curriculum: Who is Doing What</i> , University of Michigan-Dearborn	4/ 21, 2001
4)	Care Elder-Beechwood Reformed Church	1999-2000
5)	Chair- Geology Section-Michigan Academy of Sciences, Arts & Letters	1999-2001
	Co-Chair- Geology Section-Michigan Academy of Sciences, Arts & Letters	1998
6)	PKAL-Keck Science Facility Consultant, Ashland University, November 8-10,	1998
7)	Earth Science Project - Boy Scouts of America	1997