# **David Nathan Steer**

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### **Education**:

| Ph.D.   | 1996 | Geophysics, Cornell University.                      |
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| M. Eng. | 1990 | Applied and Engineering Physics, Cornell University. |
| B.S.    | 1982 | Engineering, USMA, West Point, NY.                   |

### Academic Positions:

| 2010 – Present | Professor – Department of Geology and Environmental Science,   |
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|                | The University of Akron, Akron, OH 44325-4101                  |
| 2004 - 2010    | Associate Professor – Department of Geology and Environmental  |
|                | Science, The University of Akron, Akron, OH 44325-4101         |
| 1999 - 2004    | Assistant Professor - Department of Geology, The University of |
|                | Akron, Akron, OH 44325-4101                                    |

### **Publications:**

- McConnell, D., **Steer**, D., Knight, C., and Owens, K., 2010. <u>The Good Earth: An</u> <u>Introduction to Earth Science 2<sup>nd</sup> ed.</u>, McGraw-Hill, Dubuque, IA., 17 chapters, 529 pp.
  - Kortz K., Clark, S., Viveiros, B., Smay, J., **Steer, D.** and Gray, K., *accepted 2010* (*issue TBA*). Counting tectonic plates: A study of college student conceptions of plates and boundaries, GSA Special Publication.
- Gray, K. (*student*), **Steer**, D., McConnell, D. and Owens, K., 2010. Using a Student-Manipulated Model to Enhance Student Learning in a Large Lecture Class, *Jour. Coll. Sci. Teach*, Vol. 40, No. 1, 86-95.
- Steer, D., McConnell, D., Gray (*student*), K., Kortz, K. and Liang, L., 2009, Analysis of student responses to peer-instruction conceptual questions answered using an electronic response system: Trends by gender and ethnicity, *The Science Educator* Vol. 18, No. 2, 30-38.
- Steer, D.N., 2009. Book Review Geology of Coal Fires: Case Studies from around the World, Env. Eng. GeoSci., Vol. XV, No. 3. 213-214.
- McConnell, D., Steer, D., Knight, C., Owens, K. and Park, L. 2008. <u>The Good</u> <u>Earth: An Introduction to Earth Science</u>, McGraw-Hill, Dubuque, IA., 17 chapters, 526 pp.
- Kashubin, S., Juhlin, C., Friberg, M., Rybalka, A., Petrov, G., Kashubin, A., Bliznetsov, M. and Steer, D., 2006. Crustal structure of the Middle Urals based on seismic reflection data, in European Lithosphere Dynamics (Eds. Gee, D.G. and Stephenson, R.A.), The Geological Society of London, London, England, 427-442.

- McConnell, D.A., Steer, D.N., Owens, K.D., Knott, J.R., Van Horn, S., Borowski, W., Dick, J., Foos, A., Malone, M., McGrew, H., Greer, L. and Heaney, P., 2006. Using Conceptests to assess and improve student conceptual understanding in introductory geoscience courses, *Jour. Geosci. Ed.*, 54, 61-68.
- Owens, K., **Steer**, D. and McConnell, D., 2006. Researcher, Teacher, Education Researcher: The evolution of a university geoscience instructor, *School Sci. Math.*, **106**, 27-35.
- Steer, D.N., Knight, C.C., Owens, K.D., and McConnell, D.A., 2005. Challenging student ideas about Earth's interior structure using a modelbased, conceptual change approach in a large class setting, *Jour. Geosci. Ed.*, 53 (4), 415-421.
- McConnell, D.A., **Steer**, D.N., Owens, K.D., and Knight, C.C., 2005. How students think: Implications for learning in introductory geoscience courses, *Jour. Geosci. Ed.*, **53** (4), 462-470.
- Steer, D.N., Fraser, L.H. and Seibert, B.A., 2005. Cell-to-cell pollution reduction effectiveness of subsurface domestic treatment wetlands, *Biores. Tech.*, 96, 969-976.
- Picard, C.R.(*student*), Fraser, L.H., and **Steer**, D., 2005. The interacting effects of temperature and plant community type on nutrient removal in wetland microcosms, *Biores. Tech.*, **96**, 1039-1047.
- Fraser, L.H., Carty, S. (*student*), Picard, C. (*student*) and **Steer**, D., 2004. Phytoremediation: Wetland plants and their relative efficiency at treating agricultural runoff, *Rec. Dev. Crop. Sci.*, **1**, 379-391.
- Fraser, L.H., Carty, S.M. (*student*) and **Steer**, D., 2004. A test of four plant species to reduce total nitrogen and total phosphorus from soil leachate in subsurface wetland microcosms, *Biores. Tech.*, **94**, 184-192.
- Steer, D., Aseltyne, T. and Fraser, L., 2003, Life-cycle economic model of small treatment wetlands for domestic wastewater disposal, *Ecol. Economics.*, 44, 359-369.
- Fraser. L.H., Bradford, M.E. and **Steer**, D.N., 2003, Global supply of freshwater: The role of treatment wetlands, *Int. J. Environment and Sustainable Development*, **2**, 174-183.
- McConnell, D.A., **Steer**, D.N. and Owens, K.D., 2003, Assessment of active learning strategies for introductory geology courses, *J. GeoSci. Ed.*, **51**, No. 2, 205-215.
- Steer, D., Fraser, L., Boddy, J. and Seibert, B., 2002, Efficiency of Small Constructed Wetlands for Subsurface Treatment of Single Family Domestic Effluent, *Ecol. Eng.*, 18, 429-440.
- Brown, D., C. Juhlin, A. Tryggvason, D. Steer, P. Ayarza, M. Beckholmen, A. Rybalka and M. Bliznetsov, 2002. The crustal architecture of the Southern and Middle Urals from URSEIS, ESRU and Alapaev reflection seismic surveys. Brown, D., Juhlin, C. and Puchkov, A. (eds) in Mountain Building in the Uralides: Pangea to Present, Geophs. Mono. 132, Am. Geophys. Un., Washington DC, 33 48.

- Seber, D., Steer, D., Sandvol, E., Sandvol, C, Brindisi, C. and Barazangi, M., 2000, Design and Development of Information Systems for the Geosciences: An Application in the Middle East, *GeoArabia*, 5, 269 – 296.
- Steer, D., Seber, D., Sandvol, E., Sandvol, C., Brindisi, C., and Barazangi, M., 1999. Research and Development of a Geographical Information System (GIS) for Nuclear Treaty Monitoring, in *Proceedings of the 21<sup>st</sup> Annual Seismic Research on Monitoring a Comprehensive Test Ban Treaty* (*CTBT*), US Gov. Prnt. Ofc., Washington DC, 399-405.
- Steer, D.N., Knapp, J.H., Brown, L.D., R. Berzin, H. Echtler, and D. Brown, 1998. Deep structure of the continental lithosphere in an unextended orogen: An explosive-source seismic reflection profile in the Urals (Urals Seismic Experiment and Integrated Studies (URSEIS 1995)), *Tectonics*, 17, 143-157.
- Steer, D.N., Brown, L.D., and Knapp, J.H., 1998. Superdeep reflection profiling: Exploring the mantle lid, *Tectonophysics*, **286**, 111-121.
- Diaconescu, C.C., Knapp, J.H., Brown, L.D., **Steer**, D.N., Stiller, M., 1998. Precambrian Moho offset and tectonic stability of the East European platform from the URSEIS deep seismic profile, *Geology*, 26, 211-214.
- **Steer**, D.N., Brown, L.D., Knapp, J.H., and Baird, D.J., 1996. Comparison of explosive and vibroseis source energy penetration during COCORP deep seismic profiling in the Williston Basin, *Geophysics*, 61, 211-221.
- Seber, D., Valve, M., Sandvol, E., Steer, D.N., and Barazangi, M., 1997. Middle East Tectonics: Applications of Geographical Information Systems (GIS), *GSA Today*, 7, No. 2, 1-6.
- Knapp, J.H., Steer, D.N., Brown, L.D., Berzin, R., Suleimanov, A., Stiller, M., Lüschen, E., Brown, D.L., Bulgakov, R., Kashubin, S., and Rybalka, A.V., 1996. Lithosphere-scale seismic image of the southern Urals from explosion-source reflection profiling, *Science*, 274, 226-228.
- Steer, D.N., Knapp, J.H., Brown, L.D., Sokolov, and V., Rybalka, A., 1995. Crustal structure of the middle Urals based upon reprocessing of Russian seismic reflection data, *Geophys. J. Int.*, **123**, 673-682.
- Baird, D.J., Knapp, J.H., **Steer**, D.N., Brown, L.D., and Nelson, K.D., 1995. Upper-mantle reflectivity beneath the Williston basin, phase-change Moho, and the origin of intracratonic basins, *Geology*, **23**, 431-434.

### **Published Electronic Resources:**

- McConnell, D., Steer, D., Knight, C., Owens, K. and Park, L. 2008. <u>Instructors Manual for The Good Earth: An Introduction to Earth Science</u>, McGraw-Hill, Dubuque, IA., Teaching and Learning sections and 17 chapters, 286 pp. (*web-publication*).
- McConnell, D., Steer, D., Knight, C., Owens, K. and Park, L. 2008. <u>Test bank for</u> <u>Instructors Manual for The Good Earth: An Introduction to Earth Science</u>, McGraw-Hill, Dubuque, IA., 17 chapters, 149 pp. (*web-publication*, *informally peer reviewed*).
- Steer, D. and Gray, K. (student), 2008. Teaching with physical models, (http://serc.carleton.edu/introgeo/demonstrations/examples/26478.html), part of the Starting Point "Teaching Entry Level Geosciences" website (web-publication).
- McConnell, D. and **Steer**, D., 2006. 322 Geoscience Conceptest questions (found at <u>http://serc.carleton.edu/sp/library/interactive/conctest.html</u>), part of the Starting Point "Teaching Entry Level Geosciences" website (*web-publication*).

#### Abstracts:

- Steer, D.N., 2010. Analysis of ConceptTest question data: Summary findings from large classes for non-science majors at an open enrollment university, *Geol. Soc. Am. Abs.* Vol. 42, No. 5, p. 555.
- Steer, D.N. and Gray, K., 2009. Electronic student response systems and peer instruction: Who gains? Who loses?, *Geol. Soc. Am. Vol.* 41 (1), No. 18-7.
- McConnell, D., Steer, D. and Libarkin, J., 2009. Assessing learning in introductory geoscience courses using normalized gain scores and the geoscience concept inventory, *Geol. Soc. Am. Vol.* 41 (1), No. 18-6.
- Gray K. (student), Steer, D. and McConnell D., 2008. Evaluating Higher Order Thinking Skills in Large General Education Geology Courses for Non-Majors, Geol. Soc. Am. Abs. No. 175-9.
- Steer, D., Gray K. (*student*), Owens K., McConnell D. and Knight C., 2008. Student Responses and Attitudes Concerning the Use of Physical Models in a Large Classroom Environment, *Geol. Soc. Am. Abs.* No. 221-4.
- Steer, D., McConnell, D., Gray, K. (*student*) and Owens, K., 2008. Using studentmanipulated models to demonstrate key concepts in plate tectonics, *Geol. Soc. Am. Abs.*, 40 No. 5.
- Steer, D., Gray, K. (*student*), McConnell, D., Owens, K., and Knight, C., 2007. Using hands-on physical models to promote learning in large introductory earth science classes, *Geol. Soc. Am. Abs.*, 39 No. 6, p. 252.
- Gray, K., **Steer**, D., McConnell, D., Owens, K., 2007. Evaluating the pedagogical value of using student-manipulated models in a large undergraduate earth science class, *Geol. Soc. Am. Abs.*, 39 No. 6, p. 554.
- Owens, K., Gray, K. (*student*), **Steer**, D., McConnell, D., 2007. Using models to augment teaching and learning in introductory earth science, *Geol. Soc. Am. Abs.*, 39 No. 6, p. 252.
- McConnell, D. A., and **Steer**, D. N., 2006. Pros and Cons of using paired exercises to promote critical thinking and civic thinking in introductory

sciences courses at multiple institutions, *Geol. Soc. Am. Abs.*, **38** No. 7, p. 496.

- Gay, K. (student), Owens, K. and Steer, D., 2006. Coaching geoscience graduate assistants to effectively support student inquiry, Geol. Soc. Am. Abs., 38, No. 7, p. 524.
- Steer, D.N., McConnell, D.A. and Owens, K.D., 2006. Student success in Earth Science: Which logical thinking skills are important and why? *Geol. Soc. Am. Abs.*, 38, No. 4, p. 11.
- McConnell, D.A., **Steer**, D.N. and Park, L.E., 2006. Assessment of critical and civic thinking in introductory science classes using a common approach at multiple institutions, *Geol. Soc. Am. Abs.*, **38**, No. 4, p. 11.
- Steer, D. N., McConnell, D. and Owens, K., 2005. Concept mapping for assessing student to institutional level learning goals, *Geol. Soc. Am. Abs.*, 37 No. 7, p. 231.
- McConnell, D., Steer, D. and Owens, K., 2005. Comprehension surveys and formative assessments in introductory geoscience classes, *Geol. Soc. Am. Abs.*, **37** No. 7, p. 119.
- Owens, K., McConnell, D. and **Steer**, D., 2005. The A, B, C's and 1,2,3's of assessment: A primer, *Geol. Soc. Am. Abs.*, **37** No. 7, p. 118.
- Warino, C.T. (*student*) and Steer, D.N., 2005. Electrical Imaging of a Subsiding Abandoned Coal Mine in Summit County, Ohio, *Geol. Soc. Am. Abs.*, 37 No. 5, p. 15.
- Loken, M.A. (*student*) and **Steer**, D.N., 2004. Tectonic Implications of Reflective Fabrics in Dzhabyk Batholith, Russia, *Eos Trans. AGU*, **85**(17), T31B-03.
- Owens, K., McConnell, D., Steer, D., Van Horn, S., Knott, J., Borowski, W., McGrew, H., Dick, J., Greer, L., and Malone, M., 2004. Changing pedagogy to include conceptests and peer instruction in introductory geoscience courses: The impact on instructors and students, *Geol. Soc. Am. Abs.*, 36, No. 5, p. 218.
- McConnell, D., Steer, D., and Owens, K., 2004. Technology in support of effective pedagogy: Conceptests, peer instruction, electronic response systems, and good practice in undergraduate education, *Geol. Soc. Am. Abs.*, **36**, No. 5, p. 490.
- Steer, D. N. and McConnell, D., 2003. Reforming geology courses for majors and non-majors using peer instruction and other inquiry-based learning strategies: Quantitative results, *Geol. Soc. Am. Abs.*, **35**, No. 2., p. 9.
- McConnell, D.N., **Steer**, D.N. and Owens, K.D., 2002. Conceptests and a personal response system: Using technology to enhance inquiry-based learning in an introductory geology course, *Geol. Soc. Am. Abs.*, **34** (2), A-46.
- Steer, D.N. and Fraser, L.H., 2002. Using wetlands to improve water quality in Ohio: Expectations and reality, *Geol. Soc. Am. Abs.*, **34**, No. 2., A-107.
- Bralek, R. and Steer, D.N., 2002. Performance of constructed wetlands for treatment of acid mine drainage in Ohio, *Geol. Soc. Am. Abs.*, **34** (2), A-113.
- Aseltyne, T.A., **Steer**, D.N. and Fraser, L.H., 2002. The future of constructed treatment wetlands for the on-site disposal of domestic wastewater, *Geol.*

Soc. Am. Abs., 34, No. 2., A-113.

- Steigerwalt, R.S. and Steer, D.N., 2002. New constraints on transport direction during the Grenville orogeny: Evidence for a basement lateral ramp in the eastern mid-continent, *Geol. Soc. Am. Abs.*, 34 (2), A-16.
- Carty, S. M., Fraser, L.H. and **Steer**, D.N., 2002. An experimental study of the effectiveness of four wetland plant species and community composition for wastewater treatment, *Geol. Soc. Am. Abs.*, **34** (2), A-120.
- Owens, K.D., McConnell, D.A. and **Steer**, D.N., 2002. Assessment of teaching and learning in introductory geology courses, *Geol. Soc. Am. Abs.*, **34**(2), A-20.

### Awarded Research Grants:

- Collaborative Research: Evaluating student learning in geoscience curricula that employ conceptests using electronic student response systems, NSF CCLI-Phase II Expansion grant, \$247,221 (total of \$472,247 granted to five institutions), **P.I. of Lead Institution**, 08/01/07 07/31/11.
- Collaborative Research: Critical Thinking for Civic Thinking in Science, NSF CCLI-Phase I, \$47,697, **Senior Personnel**, 01/01/07 12/01/08.
- OBR Research Challenge Match (07-09 Biennium) for NSF Collaborative Research: Evaluating student learning in geoscience curricula that employ conceptests using electronic student response systems, NSF CCLI-Phase II Expansion grant, \$18,505, **P.I.**, 08/01/07 07/31/11.
- Addressing student conceptions of plate tectonics using physical models, NSF Geoscience Education, \$167,727, **P.I**., 08/01/05 08/01/08.
- Evaluating connections between logical thinking scores and first year experience student success, Univ. of Akron internal education grant, \$4,500; **P.I.**, 9/03 5/04.
- Renewal: Crustal and Upper Mantle Structure Beneath the Urals Affecting IMS Stations ARU and UFA; Preparatory Commission for the CTBTO; \$37,600; **P.I.**; 11/01/01 10/31/02.
- Fold and Thrust Belt Geometry of the Middle Urals, Russia, American Chemical Society Petroleum Research Fund, \$35,000; **P.I.**; 6/01/02 8/31/02.
- Crustal and Upper Mantle Structure Beneath the Urals Affecting IMS Stations ARU and UFA; Preparatory Commission for the CTBTO; \$30,000; **P.I.**; 12/20/00 10/31/01.
- Crustal and Upper Mantle Structure Beneath the Urals Affecting IMS Stations ARU and UFA; OBR Research Challenge; \$7,500; **P.I.**; 12/20/00 10/31/01.
- Reinventing Introductory Geology Courses for Majors and Non-Majors Using Peer Instruction and Other Inquiry-based Learning Strategies; NSF CCLI; \$127,983; co-P.I.; 6/1/01 – 7/31/05.
- Evaluation of NPS Built Wetlands as a BMP for Septage and Acid Mine Drainage; Ohio and Federal EPA; \$227,574; **P.I.** 7/1/00 7/1/2003.
- The puzzling Urals: A search for orogenic collapse in an ancient mountain belt, Univ. of Akron internal research award, **P.I.**, \$8,000, 5/00 8/00.

# **Teaching**:

Courses Taught:

Earth Science (F99-F10); Field Studies (F08); Advanced Field Studies (F08); Geophysics (F00; F02; F04, F06, F10); Global Tectonics (S01; S03); Exploration Geophysics (F01; F03, S05, F07, F09), Environmental Geophysics (S06, S08, S10); Seminar (S01); Colloquium (F99)

### **Student Theses:**

- Gray, Kyle. (Ph.D.) 2009. A study of student responses to text-only and illustrated conceptest questions related to plate tectonics: Differences by gender and prior achievement, (**Committee Member** who funded entire research program).
- Warino, Charlie, (MS) 2008. Resistivity and radar images of collapse features attributed to a previously undocumented mine in Summit County, Ohio, 41 pp. (Advisor)
- Atef, Ali, H., (MS) 2007. Analysis of URSEIS Moho reflections beneath the Pre-Uralian foredeep of the Ural Mountains Russia, M.S. Thesis, The University of Akron, 182 pp. (Advisor)
- Harbi, Hussein, M., (MS) 2005. 2-D modeling of southern Ohio based on magnetic field intensity, gravity field intensity and well logs, M.S. Thesis, The University of Akron, 115 pp. (Advisor)
- Loken, Mark, A., (MS) 2005. Tectonic implications of shallow reflections over the East Uralian Zone in the southern Ural mountain belt, M.S. Thesis, The Univ. Akron, 52 pp. (**Advisor**)
- Picard, Robert, P., (MS) 2004. Nutrient removal in treatment wetlands at two scales, M.S. Thesis, The Univ. Akron, 70 pp. (**Reader**)
- Aseltyne, T., 2002, The future of constructed wetlands for the on-site disposal of domestic wastewater, M.S. Thesis, The Univ. Akron, 59 pp. (Advisor)
- Gebrehewit, T., 2002, Modeling of the crustal and upper mantle velocity structure beneath Ohio based on explosions from mines in Ohio and neighboring states, M.S. Thesis, The Univ. Akron, 103 pp. (Advisor)
- Steigerwalt, R., 2002, New evidence for shallow lateral movement within the Grenville Province: Implications for basin development, M.S. Thesis, The Univ. Akron, 28 pp. (Advisor)
- Visocky, S., 2002, Comparison of flow-through and non-point source acid mine drainage (AMD) treatment wetlands, M.S. Thesis, The Univ. Akron, 144 pp. (Advisor)
- Carty, S. (2002), An experimental study of the effectiveness of four wetland plant species for wastewater treatment, M.S. Thesis, Univ. Akron, 103 pp. (**Reader**)
- Nandi, A. (2002), Evaluation of the cycloid as a function for describing longitudinal stream profiles, M.S. Thesis, Univ. Akron, **94** pp. (**Reader**)

#### **Invited Presentations**:

- Steer, D.N. and Trujillo, A., 2008/2009. Developing Interactive Lectures, invited presentation at NSF-sponsored Cutting Edge Workshop: Preparing for an Academic Career, National Weather Center, Norman, OK (2008); UNLV (with Eugene Cordello in 2009).
- Steer, D.N., 2008/2009. Researching Learning in the Geosciences, invited presentation at NSF-sponsored Cutting Edge Workshop: Preparing for an Academic Career, National Weather Center, Norman, OK (2008); UNLV (2009).
- Steer, D.N., 2008/2009. Improving Student Success by Scaffolding Learning, invited presentation at NSF-sponsored Cutting Edge Workshop: Preparing for an Academic Career, National Weather Center, Norman, OK (2008); UNLV (2009).
- Steer, D.N., 2008. Assessing How do we get beyond the final exam and effectively assess what our students are learning?, invited presentation at NSFsponsored Cutting Edge Workshop: Teaching Introductory Geoscience in the 21<sup>st</sup> Century, Northfield, MN.
- McConnell, D.A. and Steer, D.N., 2005-2008. NAGT Distinguished Lectures: The Tourist the Gunslinger and the Gardener: Rethinking Metaphors of Teaching and Learning to Enhance Student Reasoning; Technology in Support of Effective Pedagogy: Peer Instruction, Electronic Response Systems, and Good Practice in Undergraduate Education; Teaching for Understanding: Less Talk and More Action in Introductory Science Courses, presented at Florida State University, Kentucky State University, SW Section of NAGT, Western Michigan, Florida International University, and University of Florida.
- Steer, D.N., 2003, Evaluating how our students think and learn: Research results from the trenches, invited by NASA to present at the Earth System Science Education for the 21<sup>st</sup> Century meeting, Morgan State University, MD.
- Steer, D.N., 2001, *Researching Crustal and Upper Mantle Structure for Central Russia*, presented at 3<sup>rd</sup> Location Workshop: Expert Group on Event Location Calibration, Oslo, Norway.

#### Service:

- 2010: Past President: National Association of Geoscience Teachers (NAGT). Chair, BCC Curriculum Committee, Faculty Senate.
- 2009: President: National Association of Geoscience Teachers (NAGT). Chair, BCC Curriculum Committee
- 2008: Vice President: National Association of Geoscience Teachers (NAGT); University Faculty Research Council, NAGT Distinguished Lecturer, NAGT representative to the American Geologic Institute, Graduate and Undergraduate Advisor for Geophysics, Graduate and Undergraduate Advisor for Engineering Geology.
- 2007: Vice-President: NAGT, Education Division representative Joint Technical Program Planning Committee for 2007 Geological Society of America Annual Meeting, University Faculty Research Council, NAGT Distinguished Lecturer, NAGT representative to the American Geologic Institute, Graduate and Undergraduate Advisor for Geophysics, Graduate and Undergraduate Advisor for Engineering Geology.
- 2006: University Faculty Research Council; NAGT Distinguished Lecturer, NAGT representative to the American Geologic Institute.
- 2005: Planning Committee member: Digital Library for Earth System Education 2005 Annual Meeting, St. Petersburg, FL, College Hearing Board, Faculty Mentor, Graduate and Undergraduate Advisor for Geophysics, Graduate and Undergraduate Advisor for Engineering Geology.
- 2004: Chair of the Planning Committee: Digital Library for Earth System Education 2004 Annual Meeting, Madison, WI., Faculty Mentor, Graduate and Undergraduate Advisor for Geophysics, Graduate and Undergraduate Advisor for Engineering Geology.
- 2003: Member College Hearing Board, Faculty Mentor, member of the 2003 NASA REASON grant review panel, Co-director of one week workshop "Rapid in-class Assessment Techniques for Introductory Courses, 200 Conceptest Questions in Five Days," Presenter: Wright State University and Ohio University Colloquium series, Graduate and Undergraduate Advisor for Geophysics, Graduate and Undergraduate Advisor for Engineering Geology.
- 2002: Member College Hearing Board, Faculty Mentor, Presenter at the "Celebrating Excellence in Teaching and Learning Conference," 4/19/02, Panel Member at the "Celebrating Excellence in Teaching and Learning Conference," 4/19/02, Presenter: Ottawa River Coalition meeting 01/23/02, Presenter: Dept. of Biology, Ecolunch, 03/20/02, Presenter: Akron Physics Club, 03/25/02, 2<sup>nd</sup> Akron Symposium on Teaching and Learning on 10/25/02, Graduate and Undergraduate Advisor for Geophysics, Graduate and Undergraduate Advisor for Engineering Geology.
- 2001: Chair Geology Department Search Committee, Presenter at 2001 Teaching and Learning Day sponsored by Council for Teaching and Learning, Presenter at Project TIMMS Workshop, Graduate and Undergraduate Advisor for Geophysics, Graduate and Undergraduate Advisor for Engineering Geology.

2000: Chair - Graduate Student Guidelines Committee, Chair - Geology Department Search Committee, Faculty Mentor Program Representative, Presenter at meeting of Ohio Chpt. Am. Inst. Prof. Geologists., Participant at University Honors Colloquium.

# **Synergistic Activities:**

- 2009: President NAGT
- 2008: Vice-President NAGT; NAGT liaison to the American Geological Institute. 2007: 2<sup>nd</sup> Vice-President NAGT; NAGT liaison to the American Geological
  - Institute.
- 2006: Session Chair NCGSA Regional Meeting: Evaluating Student Learning in Geoscience Courses
- 2005: Participant and Presenter at NSF sponsored workshop at Carleton College, WI: Workshop on Student Learning: Observing and Assessing
- 2005: Session Chair GSA National Meeting: Methods of Assessing Teaching and Learning in the Geosciences
- 2005: National Association of Geoscience Teachers (NAGT) Distinguished Lecturer
- 2005: Planning Committee Member for the 2005 Digital Library for Earth System Education (DLESE) Annual Meeting
- 2004: Program Chairman for the 2004 DLESE Annual Meeting
- 2004: Fellow: The University of Akron Scholarship of Teaching and Learning
- 2003: Panel member NASA ReaSon Panel
- 2002: Presenter at The University of Akron Institute for Teaching & Learning Symposium on the Scholarship of Teaching, Assessment, and Learning.
- 2001 2006: Faculty Mentor for The University of Akron Learning Assistant program.
- 2003 2005: Presenter at The University of Akron Institute for Teaching and Learning

2001: Presenter at the Teaching in Math and Science (TIMS) regional meeting.

# **Research Awards**:

2002: Chair's Outstanding Achievement Award: Research