CURRICULUM VITAE

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	Dept. of Physical & Environment Sci.	Web:	www.coloradomesa.edu/directory/physical-environmental-sciences/gregory-baker.html
	Colorado Mesa University		
	Grand Junction, CO		

Education

Ph.D., Geology (Honors), "Seismic Imaging Shallower than Three Meters," The University of Kansas, Lawrence, Kansas, 1999 (Don W. Steeples, Advisor).

M.S., Geological Sciences, "An Examination of Triassic Cyclostratigraphy in the Newark Basin from Shallow Seismic Profiles and Geophysical Logs," Lehigh University, Bethlehem, Pennsylvania, 1994 (Anne S. Meltzer, Advisor).

B.S., Geological Sciences (Honors), "Paleomagnetic Evidence for Block Rotation in the Fransiscan Terrane, Point San Pedro, CA," Lehigh University, Bethlehem, Pennsylvania, 1992 (Kenneth P. Kodama, Advisor).

Professional Experience

Professor of Geology, Dept. of Physical & Env. Sci., Colorado Mesa Univ., 2022-present (Assoc. Prof., 2019-2022)

Pilot/Owner/Operator, GeoAvatar LLC, Drone Solutions, 2016-present

Adjunct Associate Professor and Teaching Fellow, Geology, University of Kansas, 2017-2022

Adjunct Associate Professor, Geology & Geological Engineering, South Dakota School of Mines & Technology, 2014-2018

Instructor, Johnson County Community College, 2018

Visiting Associate Professor, Dept. of Geology, University of Kansas, 2015-2016

Adjunct Associate Professor, Dept. of Environmental Studies, Illinois Wesleyan University, 2014-2015

Jones/Bibee Endowed Associate Professor of Geophysics, Dept. of Earth and Planetary Sciences, University of Tennessee, 2006-2015 (Asst. Prof., 2005-2006)

Research Associate Professor, Dept. of Geology, University at Buffalo, 2005-2012

Assoc. Professor, Dept. of Geology, University at Buffalo, 2004-2005 (Asst. Prof. 1999-2004)

Technical Chair, Environmental & Engineering Geophys. Soc. conference (SAGEEP), 2011

Board of Directors, Environmental & Engineering Geophysical Society, 2007-2010

Editorial Board Member, *The Leading Edge*, 2010-2013

Associate Editor, *Journal of Geoscience Education*, 2006-2009

Associate Editor, *Geophysics*, 2001-2004

Visiting Instructor, National Science Foundation Research Experience for Undergraduates (REU) Program, Matanuska Glacier, Alaska, Summer 2000, 2001, 2002

Visiting Instructor, Dept. of Earth and Env. Sci., Lehigh Univ., Summer Sessions 1996-1999

Research Assistant, Dept. of Geology, University of Kansas, 1996-1999

Research Assistant, Dept. of Earth and Env. Sci., Lehigh University, 1995-1996

Geologist, GS-5, U.S. Geological Survey, Reston, VA, USGS/NAGT cooperative program, 1994

Research/Education Funding

Active Support

1. Unconventional Energy Center, Grant #2646 (Sole Investigator: $66775) "Drone-Based LiDAR Analyses of Structural Deformation & Depositional Features in Western Colorado," 3/1/2024- 5/31/2026.

Recently Submitted Unfunded Proposals

1. National Science Foundation (Co-PI; $236,215) "Collaborative Research: 50 Flipped Lessons: Curating Resources to Improve Student Learning in Introductory Geoscience Courses," 6/1/22-5/31/24.
2. Geoscientists Without Boarders (Co-PI; $95,356) "Remote sensing assessment of potential active faulting, Himalaya," 7/1/21-8/1/2022.
3. USDA Higher Education Challenge Grant (Co-PI, $202,653) "Expanding higher education in water for the arid west," Planned Start Date: 09/01/22

Past Support (2001 – present) in Reverse Chronological Order of End Date

1. Hutchins Water Center Summer Student Research Grant (PI: $5000, KennaLee Rowley undergraduate student researcher) "Application of drone photogrammetry on alluvial fans in the Grand Valley of Colorado for detecting shallowly-buried channel features that may act as groundwater conduits," 5/19/2023- 12/31/2023.
2. U.S. Department of Energy ($412,000; Sole Investigator; UT-B 4000059241), "Multiscale investigations on the rates and mechanisms of targeted immobilization and natural attenuation of metal, radionuclide, and co-contaminants in the subsurface" Total attributed to UT: $412,000; 100% to GSBaker). Active 2/1/07-1/31/13.
3. TASC, Inc. ($292,000; Sole Investigator), "Geophysical Technologies for Underground Tunnel and Facilities Detection and Characterization" (Total attributed to UT: $292,000; 50% to GSBaker). Active 1/1/10-12/31/10.
4. National Science Foundation ($81,609; Sole Investigator; GEO-0704077), "OEDG Phase 1: Enhancing Diversity via Targeted Education and Outreach Through the East Tennessee Geosciences Program (ETGP)" Total attributed to UT: $81,609; 90% to GSBaker). Active 06/01/07-05/31/10.
5. U.S. Department of Agriculture ($61,080; Sole Investigator; USDA-06-JV-11221682-040), "Using Near Surface Geophysics to Understand Alluvial Fans and Meadow Complexes in the Central Great Basin" Total attributed to UT: $61,080; 100% to GSBaker). Active 08/01/03-07/30/09.
6. National Science Foundation ($604,561; PI; GEO-0119871), "Enhancing Diversity in Buffalo, New York, Area Geoscience Programs" Total attributed to UB: $604,561; 90% to GSBaker). Active 1/1/02-12/31/06.
7. National Science Foundation ($32,000; Sole Investigator; INT-0243524), "Archaeological

Geophysics in Humayma, Jordan" Total attributed to UB: $32,000; 100% to GSBaker). Active 6/1/03-6/1/06.

8. Social Sciences and Humanities Research Council of Canada ($230,752; Project Director), "Excavation and study of the Roman fort, bath, and associated settlement at Hawara (modern Humayma), Jordan" Total attributed to UB: $0 (Research expenses paid by PI through the University of British Columbia); 0% to GSBaker. Active 5/1/02-9/1/06.
9. The Taggert Foundation (Private) ($10,332; Sole Investigator), "Excavation and study of the Roman fort, bath, and associated settlement at Hawara (modern Humayma), Jordan" Total attributed to UB: $10,332; 100% to GSBaker. Active 5/1/02-9/1/06. (Used to cover student salary not covered through the SSHRC grant.)
10. University of Tennessee College of Arts & Sciences Instructional Equipment Grant ($10,000, PI), "Acquisition of Ground Conductivity Equipment" Total attributed to UT: $10,000; 100% to GSBaker). Active 1/1/06-6/1/06.
11. U.S. Department of Agriculture, Forest Service ($20,080; Sole Investigator), "Phase 2: Using Near Surface Geophysics to Understand Alluvial Fans and Meadow Complexes in the Central Great Basin" Total attributed to UT: $20,080; 100% to GSBaker). Active 12/31/05-12/31/06.
12. U.S. Department of Defense ($233,833; Sole Investigator; DACA42-01-C-0051), "Using Near-Surface Seismic Techniques for Improved Environmental Site Characterization" Total attributed to UB: $233,833; 100% to GSBaker). Active 10/20/01-10/19/06.
13. National Science Foundation ($118,443; Co-PI; GEO-0207720), "Integrating Hydraulic, Tracer, and Geophysical Methods to Image Flow-Channeling Behavior in Fractured Bedrock" Total attributed to UB: $118,443; 50% to GSBaker). Active 8/1/02-7/31/05.
14. U.S. Department of Agriculture, Forest Service ($61,170; Sole Investigator), "Phase 1: Using High Resolution Seismic Data to Understand Alluvial Fans and Meadow Complexes in the Central Great Basin" Total attributed to UB: $61,170; 100% to GSBaker). Active 6/1/03-5/31/06.
15. National Science Foundation ($38,529; Sole Investigator, EAR/IF 0002233), "Acquisition of Equipment for Investigating Coincident Seismic and GPR Imaging" Total attributed to UB: $38,529; 100% to GSBaker. Active 8/1/00-7/31/02.
16. National Science Foundation TEA Supplement ($10,100; Sole Investigator), "Geophysical Investigations of Ice Flow Velocities on the Matanuska Glacier" Total attributed to UB: $10,100; 100% to GSBaker). Active 6/1/02-7/31/03.
17. National Science Foundation TEA Supplement ($10,100; Sole Investigator), "Geophysical Investigations on the Matanuska Glacier" Total attributed to UB: $10,100; 100% to GSBaker. Active 6/1/01-7/31/02.
18. Seismic Mocro-Technology (SMT), Inc. ($495,161; Sole Investigator), Software grant for 16 licenses of KINGDOM Suite+ including annual maintenance fee. Total attributed to UB: $495,161; 100% to GSBaker). Active 8/1/03-8/1/06.
19. Environment and Society Institute (Univ. at Buffalo) Environmental Management Alternatives Program ($19,900; Principal Investigator), "Integrated geophysical, geochemical, and structural site characterization near the West Valley Demonstration Project" Total attributed to UB: $19,900; 60% to GSBaker. Active 9/1/2000-10/30/01.
20. University at Buffalo Environmental Management Alternatives Program (EMAP) ($21,793; Principal Investigator), "Integrated Geophysical, Geochemical, and Structural Site Characterization Near the West Valley Demonstration Project" Total attributed to UB:

$21,793; 50% to GSBaker. Active 10/1/00-12/30/01.

21. University at Buffalo Pilot Program $21,793; Principal Investigator), “Direct detection of nonaqueous-phase liquid contaminants using amplitude-variation-with-offset analysis on ground penetrating radar data” Total attributed to UB: $15,000; 60% to GSBaker. Active 8/1/2000-10/30/01.
22. University at Buffalo Faculty Educational Technology Development Grant ($8,988, Co-PI), “Hydrogeophyisical monitoring at the Duttweiller Property” Total attributed to UB: $8,988; 50% to GSBaker). Active 6/1/02-9/30/03.
23. U.S. Coast Guard Support Center, Elizabeth City, North Carolina ($2,756: co-PI), "Field testing APVO analysis of GPR data across a site containing an extensive jet propellant release" Active 6/1/02-12/31/02.
24. U.S. Department of Defense, Mayport, Florida ($5,955: co-PI), "Field testing APVO analysis of GPR data across a site containing an extensive diesel fuel release" Active 6/1/02-12/31/02.
25. U.S. Department of Defense, Fort Drum, New York ($450: Sole Investigator), "Examination of APVO analysis of GPR data for delineation of an extensive gasoline release in sandy soils, Fort Drum, New York" Total attributed to UB: $450; 100% to GSBaker. Active 8/20/01-12/31/02.

Publications

PUBLICATION DATA

ORCID:	**0000-0003-4184-8000**
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CURRENT H-INDEX ESTIMATES:	**23 (Google Scholar); 20 (ResearchGate); 18 (Scopus)**
CURRENT i10 INDEX ESTIMATES:	**33 (Google Scholar)**
TOTAL CITATIONS ESTIMATES:	**1666 (Google Scholar); 1316 (ResearchGate); 937 (Scopus)**
TOTAL READs ESTIMATE:	**56,170 (ResearchGate)**
RESEARCH INTEREST SCORE:	**1041 (ResearchGate)**
RESEARCH ITEMS:	**164 (Google Scholar); 128 (ResearchGate); 69 (Scopus)**

Books, Monographs, Edited Volumes (* denoted supervised student)

1. **Baker**, G.S., and Jol, H.J., eds., 2007, Stratigraphic Analysis using Ground Penetrating Radar: Geological Society of America, *Special Paper 432*. [ISBN 978-0-8137-2432-4]
2. **Baker**, G.S., *Jordan, T.J., and Collins, S., 2003, Laboratory manual for global environmental science, 3rd Edition: Wiley & Sons, Inc., 254 p. [ISBN 0-471-54122-2]
3. **Baker**, G.S., *Jordan, T.J., and Collins, S., 2002, Laboratory manual for global environmental science, 2nd Edition: Wiley & Sons, Inc., 232 p. [ISBN 0-471-39138-2]
4. **Baker**, G.S., and Collins, S., 2001, Laboratory manual for global environmental science: Wiley & Sons, Inc., 216. [ISBN 0-471-20180-4]
5. **Baker**, G.S., 1999, Processing near-surface seismic-reflection data: A Primer: edited by R.A. Young, *Society of Exploration Geophysicists Publications*. [ISBN 1-56080-090-9]

Refereed Journal Articles (* denoted supervised student) in Chronological Order

Published

First-Authored Publications

1. **Baker**, G.S., 2024, Multitool geophysical surveys of the Humayma Roman Fort, *in* Humayma Excavation Project, 3: The Roman Fort, J.P. Oleson, Ed., Oleson, J.P., De Bruijn, E., Reeves, M.B, Sherwood, A.N., Harvey, C.A, Gerber, Y., and Nikolic, M. with contributions from Baker, G.S., Deeb, E., Holman, L., Jones, J., Klapecki, D., Koon, K., Ramsay, J., Rawlings, T., and Reese, D.S.: Archaeological Reports Series 31, American Society of Overseas Research, 1080p, ISBN 9780897571241.
2. **Baker**, G.S., 2008, Improving our understanding of near-surface seismic reflection data quality: Invited contribution to *The Leading Edge* Special Issue, 27, 1526-1534.
3. **Baker**, G.S., *Jordan, T.E., and *Talley, J., 2007, An introduction to ground penetrating radar (GPR), *in* Baker, G.S., and Jol, H.M., eds., Stratigraphic Analyses Using GPR: *Geological Society of America Special Paper 432*, 1–18.
4. **Baker**, G.S., Strasser, J.C., Evenson, E.B., Lawson, D.E., Pyke, K.P., and Bigl, R.A., 2003, Near-surface seismic reflection profiling of the Matanuska Glacier, Alaska USA: *Geophysics*, *68*, no 1, 147-156.

5. **Baker**, G.S., Steeples, D.W., and Schmeissner, C, 2002, The effect of seasonal soil-moisture conditions on near-surface seismic reflection data quality: *First Break, 20,* no 1, 35-41.
6. **Baker**, G.S., Steeples, D.W., Schmeissner, C., Pavlovic, M., and Plumb, R., 2001, Coincident imaging with seismic and GPR techniques: *Geophys. Res. Lett.*, *28*, no 4, 627-630.
7. **Baker**, G.S., Steeples, D.W., Schmeissner, C., and Spikes, K.T., 2000, Source-dependent frequency content of ultrashallow seismic reflection data: *Bull. Seis. Soc. Amer., 90*, 2, 494-499.
8. **Baker**, G.S., Steeples, D.W., Schmeissner, C., and Spikes, K.T., 2000, Ultrashallow Seismic Reflection Monitoring of Seasonal Fluctuations in the Water Table: *Environmental and Engineering Geoscience*, *6*, no 3, 271-277.
9. **Baker**, G.S., Schmeissner, C., Steeples, D.W., and Plumb, R.G., 1999, Seismic reflections from depths of less than two meters: *Geophys. Res. Lett.*, *26* , no 2, 279-282.
10. **Baker**, G.S., Steeples, D.W., and Schmeissner, C., 1999, In situ, high-resolution P-wave velocity measurements within 1 m of the Earth's surface: *Geophysics*, *64*, no 2, 323-325.
11. **Baker**, G.S., 1998, Applying AVO analysis to GPR data: *Geophys. Res. Lett.*, *25*, no 3, 397-400.
12. **Baker**, G.S., Steeples, D.W., and Drake, M., 1998, Muting the noise cone in near-surface reflection data: an example from southeastern Kansas: *Geophysics*, *63*, no 4, 1332-1338.
13. **Baker**, G.S., Steeples, D.W., and Feroci, M., 1997, The time dependence of shallow reflection data: *The Leading Edge*, *16*, no 11, 1663-1666.

Supervised-Student Authored Publications

1. *Williams, C.M., **Baker**, G.S., and Ault, B.A., 2012, Enhancing usability of near-surface geophysical data in archaeological surveys via Google Earth, *in* Whitmeyer, S.J., Bailey, J.E., De Paor, D.G., and Ornduff, T., eds., Google Earth and Virtual Visualizations in Geoscience Education and Research: Geological Society of America Special Paper 492, p. 55–68, , doi:10.1130/2012.2492(04).
2. *Gaines, D.P., **Baker**, G.S., Hubbard, S.S., Watson, D, Brooks, S., and Jardine, P., 2010, Detecting perched water bodies using near-surface seismic time-lapse travel-time tomography, *in* Miller, R.D., Bradford J,H, Holliger, K., eds., *Advances in Near Surface Seismology and Ground-Penetrating Radar*, Society of Exploration Geophysicists, Tulsa, OK, ISBN 9781560802242.
3. *Evenick, J.C., Hatcher, R.D., **Baker**, G.S., 2008, Trend surface residual anomaly mapping and well data may be underutilized combo: *Oil & Gas Journal*, Jan. 2008, 35-42.
4. *Gilcrist, L.E., **Baker**, G.S., Sen S., 2007, Preferred frequencies for three unconsolidated Earth materials: *Applied Physics Letters*, 91, 254-257.
5. *Stokes, P.J., **Baker**, G.S., Briner, J.P., and Dorsey, D.J., 2007, Multifaceted outreach model for enhancing diversity in the geosciences in Buffalo, NY: *Journal of Geoscience Education*, v. 55, n. 6, p. 574-580.
6. *Bennett, G., Weissmann, G.S., **Baker**, G.S., and Hyndman, D.W., 2006, Regional-scale assessment of a sequence bounding paleosol on fluvial fans using ground penetrating radar, eastern San Joaquin Valley, California: *Geological Society of America Bulletin*, v. 118, p. no 5, 724-732.

7. *Evenick, J. C., Jacobi, R. D., **Baker**, G. S., and Mitchell, C. E., 2005, Subsurface evidence for faults in the Appalachian basin, western New York State: *Northeastern Geology and Environmental Sciences*, v. 27, no. 1, p. 1-17.
8. *Talley, J., **Baker**, G.S., Becker, M.W., Beyrle, K., 2005, Four Dimensional Mapping of Tracer Channelization in Sub-Horizontal Bedrock Fractures using Surface Ground Penetrating Radar, *Geophysical Research Letters*, v. 32, p. 732-735.
9. *Jordan, T.E. and **Baker**, G.S., 2004, Amplitude and Phase Variation with Offset (APVO) Analysis of Ground Penetrating Radar Data: Theory and Forward Modeling: *Envorinmental and Engineering Geoscience*.
10. *Jordan, T.E., **Baker**, G.S., Henn, K., Messier, J-P., 2004, Using amplitude variation with offset and normalized residual polarization analysis of ground penetrating radar data to differentiate an NAPL release from stratigraphic changes: *Journal of Applied Geophysics, 56*, 41– 58.
11. *Jordan, T.W., and **Baker**, G.S., 2003, Recommendation for new terminology for linear polarized components of ground penetrating radar waves: *Journal of Environmental and Engineering Geophysics*., 8, no 1, 39-42.
12. *Malinowski, M., and **Baker**, G.S., 2003, Experimental results of energy and soil-moisture effects on nonlinear deformation associated with near-surface seismic reflection sources: *Journal of Environmental and Engineering Geophysics, 8*, no 4, 221-226.

Other Peer-Reviewed Publications

1. Baldauf, P., **Baker**, G.S., Miles, M., Burkhart, P., Gontz, A., Rinka, M., & Levenson, M., 2023, Holocene evolution of parabolic dunes, White River Badlands, South Dakota, USA, revealed by high-resolution mapping: *Quaternary Research*, 115:46-57. doi:10.1017/qua.2022.69
2. Roberts, J. A., **Baker**, G. S., McLean, N., Moeller, A., & Olcott Marshall, A., 2018, Impact of Classroom Transformation on Inequality in DFW Rates ("D" or "F" grade or Withdraw) for Women and Underrepresented Minorities in an Introductory Geology Course. *Journal of Geoscience Education*, v 66, issue 4, 304-318.
3. Gasperikova, E., Hubbard, S.S., Watson, D., **Baker**, G. S., Peterson, J. E., Kowalsky, M. K., Smith, M, and Brooks, S., 2012, Long-term electrical resistivity monitoring of recharge-induced contaminant plume behavior: Journal of Contaminant Hydrology, 142-143, 33-49.
4. Kowalsky, M. B., E. Gasperikova, S. Finsterle, D. Watson, G. **Baker**, and S. S. Hubbard, 2011, Coupled modeling of hydrogeochemical and electrical resistivity data for exploring the impact of recharge on subsurface contamination, *Water Resour. Res*., 47, W02509, doi:10.1029/2009WR008947.
5. Sherwood, A.W., Oleson, J.P., de Bruijn, E., Bevan, G., **Baker**, G., and *Ambrose, H., 2008, Preliminary report of the Humayma Excavation Project, 2002, 2004-2005: The Roman Fort, Part I: Geophysical Surveys, Praetorium and Horreum: Mouseion (Journal of the Classical Association of Canada), Series III, Vol. 8, No. 2., 119-158.
6. Alley, R.B., Lawson, D.E., Larson, G.J., Evenson, E.B., and **Baker**, G.S., 2003, Stabilizing feedbacks in glacier-bed erosion: *Nature*, *424*, 758-760.
7. Black, R.A., Walker, J.D., and **Baker**, G.S., 2002, Three-dimensional gravity modeling and crustal-density variations, Panamint Range to the eastern Sierra Nevada, southeastern California, *in* Glazner, A.F., Walker, J.D., and Bartly, J.M., eds., Geologic Evolution of the

Mojave Desert and Southwestern Basin and Range: Boulder, Colorado, *Geological Society of America Memoir 195*, p. 229-241.

8. Steeples, D.W., **Baker**, G.S., and Schmeissner, C., 1999, Toward the autojuggie: Planting 72 geophones in 2 seconds: *Geophys. Res. Lett.*, *26* , no 8 , 1085-1088.
9. Steeples, D.W., **Baker**, G.S., Schmeissner, C., and Macy, B.K., 1999, Geophones on a Board: *Geophysics, 64*, no 3, 809-814.

Nonrefereed Publications (* denoted supervised student) in Chronological Order

1. Burkhart, P. A., Alley, R. B., Thompson, L. G., Balog, J. D., Baldauf, P. E., and **Baker**, G. S., 2017, Savor the cryosphere. *GSA Today*, *27*(8), 4-11.
2. **Baker**, G.S., 2012, *Book Review:* Advances in Near-Surface Seismology and Ground-Penetrating Radar, Richard D. Miller, John H. Bradford, and Klaus Holliger (Eds.): *Vadose Zone Journal*.
3. Miller, R. and **Baker**, G.S., 2011, Introduction to special issue: Near-surface geophysics*: The Leading Edge*, 30, no 2. *in* Miller and Baker, special eds., Near-Surface Geophysics special issue.
4. Edward B.E., Burkhart, P.A., Gosse, J.C., **Baker**, G.S., Jackofsky, D., Meglioli, D., Dalziel, I., Kraus, S., Alley, R.B., and Berti, C., 2009, Enigmatic boulder trains, supraglacial rock avalanches, and the origin of "Darwin's boulders," Tierra del Fuego: GSA Today, v. 19, no. 12, doi: 10.1130/GSATG72A.1
5. Oleson, J.P., Reeves, M.B., **Baker**, G.S, de Bruijn, E, Gerber, Y., Nikolic, M., and Sherwood, A.N., 2008, "Preliminary report of the al-Humayma Excavation Project, 2004, 2005"; *Annual of the Department of Antiquities of Jordan* 52: 309-42.
6. Young, R. A., and **Baker**, G.S., 2005, Introduction of Special Issue on Near Surface Geophysics University Research and Education: Invited contribution in *FastTIMES*: Newsmagazine for the near surface geophysical sciences, Young and Baker., Special Eds., *9*, no 9.
7. Oleson, J.P., **Baker**, G.S., de Bruijn, E., and Reeves, M.B., Sherwood, A., 2005, "Humayma, in "Archaeology in Jordan, 2004 Season", eds. Savage, S.H., Zamora, K.A., and Keller, D.R., *American Journal of Archaeology*, 109: 554-555.
8. **Baker**, G.S., 2004, The Near Surface Geophysics (NSG) section of the Society of Exploration Geophysicists: Invited contribution in *FastTIMES*: Newsmagazine for the near surface geophysical sciences, Doll, W.E., Special dd., *9*, no 9.
9. Kopczynski, S.E., S.R. Bigl, J.V. Holmes, D.C. Finnegan, G.S. **Baker**, A. Delaney. September 2003. Hydrogeology of the Poleline Road Disposal Area . CRREL Contract Report. Prepared for U.S. Army Alaska, Directorate of Public Works.
10. Larson,G.J., Evenson, E.B., Lawson, D.E., Ensminger, S.L., **Baker**, G.S., and Alley, R.B., 2003, Glacial Geology of Upper Cook Inlet, Matanuska Glacier and Denali Highway: *in* Easterbrook, D.J., ed., Field Trip Guide, The XVI INQUA Congress (International Union for Quaternary Research).

11. *Mayer, C.M., and **Baker**, G.S., 2003, Methods of Rapid Azimuthal Resistivity Collection with an Ohmmapper Resistivity Meter: *University at Buffalo Journal of Undergraduate Research*, *1*, A 1-6.
12. *Talley. J., *McEwan, D., *Shaffer, W. and G. S. **Baker**, 2003, The Rensch Canal Project: *University at Buffalo Journal of Undergraduate Research*, *1*, B 1-14.
13. **Baker**, G.S., 2002, Book review of "Surviving Galeras" by Stanley Williams and Fen Montaigne: Cambridge Press, *in* Science, Books & Films: American Association for the Advancement of Science, vol 38, no 4, p 460-461.
14. Oleson, J.P., **Baker**, G.S., Sherwood, A., de Bruijn, E., and Reeves, M.B., Ambrose, H., 2003, "Humayma," in "Archaeology in Jordan, 2002 Season", eds. Savage, S.H., Zamora, K.A., and Keller, D.R., *American Journal of Archaeology,* 107: 471-73.
15. **Baker**, G.S., 2001, Book review of "Fore in the Sea—The Santorini Volcano: Natural History and the Legend of Atlantis" by Walter L. Friedrich: Cambridge Press, *in* Science, Books & Films: American Association for the Advancement of Science, vol 37, no 1, p 17-18.
16. **Baker**, G.S., 2000, Book review of "Earth Almanac: An annual geophysical review of the state of the planet" by Natalie Goldstein: Oryx Press, *in* Science, Books & Films: American Association for the Advancement of Science, vol 36, no 5, p 216.
17. **Baker**, G.S., 2000, Matanuska Glacier July 2000 Preliminary Geophysics Report: Cold Regions Research and Engineering Laboratory (CRREL) report, 16 p.
18. **Baker**, G.S., 1999, Seismic Imaging Shallower than Three Meters: PhD (Honors) dissertation, The University of Kansas, 320 p.
19. **Baker**, G.S., Steeples, D.W., and Schmeissner, C., 1998, New views on the shallow subsurface: Near-surface views, Near-surface geophysics section of the Soc. Expl. Geoph. newsletter, October, 1998.
20. Steeples, D.W., and **Baker**, G.S., 1998, Finding seismic static corrections: *AAPG Explorer*, *19*, no 6, 20-21,29.
21. **Baker**, G.S., 1994, An Examination of Triassic Cyclostratigraphy in the Newark Basin from Shallow Seismic Profiles and Geophysical Logs: M.Sc. thesis, Lehigh University, 186 p.
22. **Baker**, G.S., 1992, Paleomagnetic Evidence for Block Rotation in the Fransiscan Terrane, Point San Pedro, CA: B.S. (Honors) Thesis, Lehigh University, 112 p.
23. **Baker**, G.S., Cherichetti, P., Cyr, K., DeVivo, J., Gascoyne, R., Gatti, J.A., Kinney, D., Peper, E., Rohrer, J., and Warner, L., 1991, Lehigh University Campus Soils: A Preliminary Sedimentologic Study: Contribution 001 of *Campus Environmental Studies Series*, Lehigh University, 25p.

Conference Proceedings in Chronological Order by Category

Invited Abstracts (denoted supervised student)*

1. Roberts, J. A., and **Baker**, G. S. Flipping Your Class: What to Take Out, What to Leave In, 2016 (invited), Earth Educators Rendezvous, Madison WI.
2. Hubbard, S.S., **Baker**, G.S., Kowalsky, M.B., Chen, J., Gasperikova , E., *Gaines, D.P., *Smith, M., Watson, D., and Brooks, S., 2010, Hydrogeophysical Quantification of Plume-Scale Subsurface Architecture and Recharge Processes: 5th Annual ERSP Meeting, March 29-31, 2010.

3. W-M. Wu, D. Watson, T. Mehlhorn, J. Earles, M. Boyanov, T. M. Gihring, G. Zhang, C. Schadt, K. Lowe, J. Phillips, K.M. Kemner, B. Spalding, Y. Wu, S. Hubbard, G. **Baker**, C.S. Criddle, P.M. Jardine, S. Books, 2010, In situ Biostimulation of Uranium Reduction and Immobilization Using Emulsified Vegetable Oil as Electron Donor at the Oak Ridge IFRC Site: 5th Annual ERSP Meeting, March 29-31, 2010.
4. Evenson, E.B., Gosse, J., **Baker**, G.S., Burkhart, P., Jackofski, D.S., Meglioli, A., 2009, The giant bounder trains of Tierra Del Fuego and the origin of "Darwin's Boulders": Geological Society of America *Abstracts with Programs*, Vol. 41, No. 7, p. 244.
5. Hubbard, S.S., **Baker**, G.S., Chen, J., Kowalsky, M., Gasperikova, E., *Gaines, D.P., *Modi, A., Jardine, P.W., 2009, Hydrogeophysical Quantification of Plume-Scale Flow Architecture and Recharge Processes at the ORNL IFRC: US Dept. of Energy Environmental Sciences Remediation Program Principal Investigators Meeting, Lansdown VA, April 2009.
6. **Baker**, G.S., *Pyke, K.P., Evenson, E.B., Lawson, D., Larson, G., and Alley, R.B., 2005, Application of Near-Surface Geophysics to Problems in Glacier Dynamics, Pitted Outwash Plain Formation, and Glaciotectonics, Matanuska Glacier, Alaska: *Eos, Transactions, American Geophysical Union*, Spring Meeting.

Abstracts Resulting in Awards (denoted supervised student)*

1. Best Undergraduate Poster, Hydrogeology Division, Geological Society of America national conference, Pittsburgh, PA, October 2023. *Worster, K. and **Baker**, G.S., 2023, Application of RGB and multispectral drone (sUAS) photogrammetry of alluvial fans in the Grand Valley of Colorado USA for detecting shallowly-buried channel features that may act as groundwater conduits: Geological Society of America Abstracts with Programs, Vol. 55, No. 6. doi: 10.1130/abs/2023AM-395359
2. *Best Paper:* *Sturtevant, K.A., **Baker**, G.S., Lord, M., Miller, J., Jewitt, D., Germanoski, D., Chambers, J., 2006, Combining multiple seismic and ground penetrating radar techniques to analyze hydrologic controls on riparian meadow complexes in the Central Great Basin, Nevada USA: *Symposium on the Application of Geophysics to Engineering & Environmental Problems*.
3. *Best Paper, Honorable Mention:* **Baker**, G., Steeples, D. and Schmeissner, C., 1999, On coincident seismic and radar imaging, *Society of Exploration Geophysicists 1999 International Exposition and 69th Annual Meeting*, Houston TX.

First-Authored, Peer-Reviewed Expanded Abstracts (denoted supervised student)*

1. **Baker**, G.S., *Gaines, D.P., Hubbard, S.S., Watson, D., Brooks, S., 2010, Detecting perched water bodies using surface seismic time-lapse travel-time tomography: Expanded Abstract, European Association of Geoscientists & Engineers—Near-Surface Geophysics, Zurich, Switzerland.
2. **Baker**, G.S., and *Ambrose, H.M., 2005, Quantitatively merging GPR and magnetic gradiometry data for enhanced interpretation of archaeological geophysics surveys: *Society of Exploration Geophysicists 2005 International Exposition and 75th Annual Meeting,* Houston, Texas.
3. **Baker**, G.S., *Talley, J.L., Becker, M.W., and *Beyrle, N.J., 2005, Examining meter-scale

fluid channelization in a subhorizontal bedrock fracture by tracking high-salinity tracer using surface ground penetrating radar: *Society of Exploration Geophysicists 2005 International Exposition and 75th Annual Meeting,* Houston, Texas.

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8. **Baker**, G. S., Plumb, R. J., Steeples, D. W., Pavlovic, M. and Schmeissner, C. M., 1998, Coincident GPR and ultra-shallow seismic imaging in the Arkansas River Valley, Great Bend, Kansas, 68th Ann. Internat. Mtg: Soc. of Expl. Geophys., 859-861.
9. **Baker**, G. S., Steeples, D. W., Schmeissner, C. M. and Macy, B. K., 1998, In-situ, high-resolution P-wave velocity measurements within 1 m of the Earth's surface, 68th Ann. Internat. Mtg: Soc. of Expl. Geophys., 856-858.

Student-Authored, Peer-Reviewed Expanded Abstracts (denoted supervised student)*

1. *Yeluru, P.M., **Baker**, G.S., Park, C.B., Taylor, L.A., 2009, MASW surveys with random receiver array for lunar exploration: *Symposium on the Application of Geophysics to Engineering & Environmental Problems (SAGEEP) Proceedings*, Conference of the Environmental & Engineering Geophysical Society, Paper 125, 7p.
2. *Burns, K., and **Baker**, G.S., 2007, Developing an empirical relationship between ground penetrating radar reflection amplitudes and subhorizontal fracture aperatures: *Symposium on the Application of Geophysics to Engineering & Environmental Problems.*
3. *Gilcrist, L.E., **Baker**, G.S., and Sen, S., 2007, Systematic exploration of near surface soil dynamics: Determining resonant or preferred frequencies in three soil types by isolating and changing mechanical wave properties associated with frequency, amplitude, and load time: *Society of Exploration Geophysicists 2007 International Exposition and 77th Annual Meeting*.
4. *Malinowski, M., and **Baker**, G.S., 2004, Effects of source energy and soil moisture on near-source, nonlinear deformation associated with near-surface seismic reflection sources: *SEG 2004 International Exposition and 74th Annual Meeting*, Denver, Colorado.
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7. *Ambrose, H.M., Sherwood, A., Oleson, J.P., **Baker**, G.S., de Bruijn, E., Reeves, M.B., 2002,Geophysical Investigations at Ancient Hawara, Jordan: *Am. Sch. of Oriental Res. 2002 Ann. Mtg., Expanded Abstracts*, 10-11.
8. *Jordan, T.E. and G.S. **Baker**, 2002, Amplitude and phase variation with offset analysis of ground penetrating radar data: Environmental and Engineering Geophysical Society, *Symposium on the Application of Geophysics to Engineering & Environmental Problems*, Las Vegas, Nevada.
9. *Jordan, T. E. and G. **Baker**, 2002, Field testing amplitude and phase variation with offset (APVO) analysis of ground penetrating radar data, *SEG 2002 International Exposition and 72nd Annual Meeting*, Salt Lake City, Utah.
10. *Jordan, T. and **Baker**, G., 2001, Amplitude and phase variation with offset (APVO) analysis of ground penetrating radar data, *71st Ann. Internat. Mtg: Soc. of Expl. Geophys.*, 1353-1356.

Abstracts for International Meetings (denoted supervised student)*

1. **Baker**, G.S., *Gaines, D.P., Hubbard, S.S., Watson, D., Brooks, S., 2010, Detecting perched water bodies using surface seismic time-lapse travel-time tomography: Expanded Abstract, European Assiciation of Geoscientists & Engineers—Near-Surface Geophysics, Zurich, Switzerland.
2. **Baker**, G.S., *Gilcrist, L.E., and *Gaines, D.P., 2008, Advances in near-surface seismology: Expanded Abstract, International Conference on Environmental and Engineering Geophysics (ICEEG '08), Wuhan China.
3. **Baker**, G.S., and *Ambrose, H.M., 2007, Ground penetrating radar imaging of a 4th Century Roman fort, Humayma, Jordan: Expanded Abstract, International Workshop on Advanced Ground Penetrating Radar (IWAGPR '07), Naples Italy.
4. **Baker**, G.S., *Burns, K., and *Pardy, J.T., 2007, Examining meter-scale fluid channelization in a subhorizontal bedrock fracture by tracking high salinity tracer using surface ground penetrating radar: Expanded Abstract, European Association of Geoscientists and Engineers (EAGE) 13th European meeting of Environmental & Engineering Geophysics, Istanbul Turkey.
5. **Baker**, G.S., and *Sturtevant, K.A., 2007, Combining multiple seismic and ground penetrating radar techniques to analyze geologic controls of riparian meadow complexes in the Central Great Basin, Nevada USA: European Association of Geoscientists and Engineers (EAGE) 13th European meeting of Environmental & Engineering Geophysics, Istanbul Turkey, Istanbul Turkey.
6. Plumb, R.G., Steeples, D.W., **Baker**, G.S., Schmeissner, C., and Pavlovic, M., 1999, A Combined Ground-Penetrating Radar and Shallow Seismic-Reflection Approach to Characterize Hydrological Flow: Expanded Abstract, IEEE Geoscience and Remote Sensing Society (IGARSS) '99, Germany.

First-Authored & Presented Abstracts (denoted supervised student)*

1. **Baker**, G.S., 2024, Incorporating near-surface geophysical techniques into basic science research on alpine glaciars and glacial deposits: Geological Society of America Abstracts with Programs, Vol. 56, No. 5. doi: 10.1130/abs/2024AM-404950
2. **Baker**, G.S., 2022, Quantifying the magnitude of changes in recent and historical environmental conditions using integrated time-lapse spatial differencing of 3D surface models from drone (sUAS) data: Geological Society of America Abstracts with Programs. Vol 54, No. 5**.** doi: 10.1130/abs/2022AM-377645
3. **Baker**, G.S., Roberts, J.A., Rodriguez-Colon, B., Ramirez-Martinez, W.R., Chabrier, A., and Duckett, M., 2019, Acquisition Criteria for UAV (drone) structure-from-motion (SfM) and photogrammetry of bathymetry in very shallow water: Geological Society of America Abstracts with Programs. Vol. 51, No. 5.
4. **Baker**, G.S., 2017, Utilizing sUAS (drones) in near-real time to enhance geology field camp learning outcomes: Geological Society of America Abstracts with Programs. Vol. 49, No. 6, ISSN 0016-7592 doi: 10.1130/abs/2017AM-306385
5. **Baker**, G. S., and Roberts, J. A., 2016, Developing synchronous team-based learning via Google Earth in a fully-online "natural disasters" introductory general education Earth Science course, Earth Educator's Rendezvous, Madison, Wisconsin.
6. **Baker**, G.S., Williams, C., and Ault, B.A., 2012, Improving multi-tool surveying efficiency for archaeological geophysics by integrating Google Earth: Geological Society of America *Abstracts with Programs.* Vol. 44, No. 7, p. 568.
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10. **Baker**., G.S., 2007, Understanding the existing role of traditional field camps in the earth sciences: Insights from the NAGT/USGS internship program and the broader community: *Abstracts with Programs - Geological Society of America*, vol. 39, no. 6, pp. 547.
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12. **Baker**, G.S., 2005, Does near-surface geophysics serve the geology that serves society?: *Geological Society of America Abstracts with Programs*, Vol. 37, No. 7, p. 342.
13. **Baker**, G.S., and Aslan, A., 2005, Integrating geology and geophysics to determine the origin of Unaweep Canyon and Late Cenozoic fluvial incision in the Colorado Plateau-Rocky Mountain region: *Geological Society of America Abstracts with Programs,* Rocky Mountain Section.
14. **Baker**, G.S., 2004, Recent advances in acquisition and analysis of seismic, GPR, and electrical resistivity data for hydrogeophysical investigations: *Geological Society of America Abstracts with Programs.*

15. **Baker**, G.S., *Stokes, P.J., Birdd, D., Dorsey, D., Splett, J., and Staley, J., 2004, Tools and techniques for diversity enhancement in the geosciences through the Buffalo Geosciences Program (BGP): *Geological Society of America Abstracts with Programs.*
16. **Baker**, G.S., *Talley, J.L., Becker, M.W., and *Beyrle, N.J., 2004, Flow-channeling in fractured bedrock: ground penetrating radar investigations and interpretations: *Eos, Transactions, American Geophysical Union.*
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18. **Baker**, G.S., *Pyke, K.A., Evenson, E.B., Larson, G.J., and Lawson, D.E., 2003, Ground penetrating radar analysis of moraine facies development and glaciotectonic deformation from 2001 to 2003, Matanuska Glacier, Alaska: *Geological Society of America Abstracts with Programs, 35*, no 7, 218.
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20. **Baker**, G.S., Strasser, J., Lawson, D.E., Evenson, E.B., and Bigl, R.A., 2000, Near Surface Seismic Reflection Data from an Active Temperate Glacier: Eos, Transactions, American Geophysical Union, vol. 81, no. 48, p 428.
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22. **Baker**, G.S., and Burkhart, P.A., Evenson, E.B., 1998, Improving the educational environment through daily graded assessments: an example from a six-week geology field course: Geol. Soc. Amer., Abstracts with Programs, vol 30, no 7, 256-257.
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25. **Baker**, G.S., and Meltzer, A.S., 1994, Geophysical Log Investigation of Orbitally Forced Cyclostratigraphy in the Newark Basin, NJ.: Geol. Soc. Amer., Abstracts with Programs, vol 26, no 7, 402.

Student-Authored, Student-Presented Abstracts

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1. *Beyer, C. and **Baker**., G.S., 2025, Determination of Mesoscopic Fracture Kinematics from Drone-based Remote Sensing in Unaweep Canyon, Western Colorado, USA: Presented at the 2023 Colorado Mesa University 16th Annual Student Showcase, May 2nd 2025.
2. +*Hanson, G. and **Baker**., G.S., 2025, Estimates of high-flow stream flood discharge using drone (sUAS) photogrammetry and LiDAR imagery in an ephemeral stream, Mesa County, Colorado USA: Presented at the 2023 Colorado Mesa University 16th Annual Student Showcase, May 2nd 2025.
3. *Shomers, Z., **Baker**, G.S., and Aslan, A., 2025, Preliminary Structural Investigation of Laramide Deformation, South Shale Ridge, De Beque, Colorado, USA: Presented at the 2023 Colorado Mesa University 16th Annual Student Showcase, May 2nd 2025.

4. *Hanson, G.Q., *Martin, L., and **Baker**, G.S., 2024, First-order estimates of high-flow stream flooding discharge from competence measurements using time-lapse drone (sUAS) orthomosaic imagery, Mesa County, Colorado USA: Geological Society of America Abstract Program, Vol. 56, No. 5. doi: 10.1130/abs/2024AM-404888.
5. *Renshaw, C., Baldauf, P., Grimley, D., **Baker**, G.S., and Nichols, J., 2024, Fossil gastropods as Late Pleistocene paleoenvironmental proxies, White River Badlands, South Dakota, USA: Geological Society of America Abstracts with Programs. Vol. 56, No. 5, 2024 doi: 10.1130/abs/2024AM-402603.
6. *Hanson, G., *Martin, L., and **Baker**., G.S., 2024, Three-year seasonal monitoring of Ladder Creek to estimate sediment flux and stream competence using drone orthomosaic imagery, Mesa County, Colorado USA: Presented at the 2024 Colorado Mesa University 15th Annual Student Showcase, April 26th 2024.
7. *Pethick, J. and **Baker**., G.S., 2024, Drone (sUAS) multispectral imaging of human footprints for enhanced forensic site investigation: Presented at the 2024 Colorado Mesa University 15th Annual Student Showcase, April 26th 2024.
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9. *Kleim, L. and **Baker**, G.S., 2023, Application of multispectral drone (sUAS) photogrammetry to improve dinosaurian ichnofossil trackway identification in the Catus Park area, Western Colorado USA: Geological Society of America Abstracts with Programs, Vol. 55, No. 6. doi: 10.1130/abs/2023AM-392898.
10. +*Worster, K. and **Baker**, G.S., 2023, Application of RGB and multispectral drone (sUAS) photogrammetry of alluvial fans in the Grand Valley of Colorado USA for detecting shallowly-buried channel features that may act as groundwater conduits: Geological Society of America Abstracts with Programs, Vol. 55, No. 6. doi: 10.1130/abs/2023AM-395359.
11. *Schmidt, A., Johnson, V., and **Baker**., G.S., 2023, Dotsero Volcano magnetic survey: Presented at the 2023 Colorado Mesa University 14th Annual Student Showcase, April 28th 2023.
12. *Kleim, L., **Baker**., G.S., and Aslan, A., 2023, Application of photogrammetry to dinosaurian trackways in the Cactus Park area: Presented at the 2023 Colorado Mesa University 14th Annual Student Showcase, April 28th 2023.
13. *Myers, William, **Baker**, G.S., and Aslan, A., 2023, Integrating drone orthomosaic imagery and structure-from-motion 3D digital models with stratigraphic analysis of the Rabbit Valley paleontological area, Colorado USA: Presented at the 2023 Colorado Mesa University 14th Annual Student Showcase, April 28th 2023.
14. *Hanson, G. and **Baker**, G.S., 2023, Analysis of time-lapse drone structure-from-motion orthoimagery in sections of Ladder Canyon for monitoring spring snowmelt-runoff related sediment fluxes, Western Colorado USA: Presented at the 2023 Colorado Mesa University 14th Annual Student Showcase, April 28th 2023.
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18. *Staub, A., Kamola, D., and **Baker**, G.S., 2021, Characterizing an incised valley fill in the Aberdeen Member, Upper Cretaceous Blackhawk Formation, Book Cliffs, Utah: *Geological Society of America Abstracts with Programs*. Vol 53, No. 6. doi: 10.1130/abs/2021AM-367129
19. *Hadden, K. and **Baker**., G.S., 2021, Preliminary investigation of the crustal and upper mantle tomography of the Devil's Canyon area in the Grand Valley of Western Colorado USA: Presented at the 2021 Colorado Mesa University 12th Annual Student Showcase.
20. *Horvat, D.J. and **Baker**., G.S., 2021, Identifying shallow unexposed features in basement rock through ground-based magnetic surveying in the vicinity of Devil's Canyon, Grand Valley, Western Colorado USA: Presented at the 2021 Colorado Mesa University 12th Annual Student Showcase.
21. *Lavelle, J. and **Baker**., G.S., 2021, Using drone (sUAS) structure-from-motion (SfM) photogrammetry to detect motion of the West Salt Creek Landslide headwall, Mesa County, Colorado: Presented at the 2021 Colorado Mesa University 12th Annual Student Showcase.
22. *Anderson, C.D., *Horvat, D.J., Dacuag, R.M., *Hadden, K., Johnson, V., **Baker**, G.S., Livaccari, R., and Eckberg, E., 2021, Preliminary structural and geophysical investigation of possible Cenozoic intrusive events along the northeast Uncompahgre Plateau in Western Colorado: Presented at the 2021 Colorado Mesa University 12th Annual Student Showcase.
23. *Byers, C.W., Kramer, H.D., Burkhart, P.A., Baldauf, P., **Baker**, G.S., McClinton, B., Brown, C., Peet, E., Forrest, A., and Ramey, D., 2019, Sand provenance across the White River Badlands toward the Nebraska Sand Hills: *Geological Society of America Abstracts with Programs*. Vol. 51, No. 5**.**
24. Levenson, M., Gontz, A., Baldauf, P., **Baker**, G.S., Burkhart, P., Kelly, J., Forrest, A., and Ramey, D., 2019, Using an integrated surficial and subsurface approach to understand periods of activity in the dunes of southern White River Badlands, South Dakota USA: *Geological Society of America Abstracts with Programs.* Vol. 51, No. 5**.**
25. *Tewksbury-Christle, Carolyn, and G.S. **Baker**, 2012, Ground Penetrating Radar Investigations on the Relationship between Salinity in Fluid-filled Horizontal Sub-wavelength 'Thin-layer' Bedrock Fractures and Reflection Amplitudes: *Symposium on the Application of Geophysics to Engineering & Environmental Problems (SAGEEP) Proceedings*, Conference of the Environmental & Engineering Geophysical Society, Paper 125, 7p.
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28. *Williams, C.M., **Baker**, G.S., and Ault, B.A., 2010, A multi-tool geophysical investigation of the Dreamer's Bay ancient Roman port, Akrotiri Peninsula, Cyprus: *Geological Society of America Abstracts with Programs*, Vol. 42, No. 5, p. 578.
29. *Gaines, D.P., **Baker**, G.S., Hubbard, S.S., Watson, D.B., and Jardine, P.M., 2009, Application of Surface Time-Lapse Seismic Refraction Tomography (TLSRT) to Quantifying Changes in Saturation Within the Vadose Zone: *Eos. Trans.*, Spring Meeting Suppl., Abstract H13D-05.
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31. *Gaines, D.P., **Baker**, G.S., Hubbard, S.S., *Modi, A., Watson, D., and Jardine, P., 2008, Enhanced Monitoring of recharge-related environmental remediation processes using time-lapse seismic reflection: *Eos. Trans.* AGU 89(53), Fall Meeting Suppl., Abstract NS41A-04.
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37. *Stokes, P.J., **Baker**, G.S., Laub, R.S., Briner, J.P., 2007, Correlating georadar facies to subsurface lithology: An approach to understanding the Late Quaternary Hiscock Site, western New York State: *Geological Society of America Abstracts with Programs*.
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40. *Stokes, P.J., **Baker**, G.S., Laub, R.S., 2006, Using Ground Penetrating Radar (GPR) to find Pleistocene megafauna fossils at the Hiscock Site in Western New York: *Geological Society of America Abstracts with Programs*, Vol. 38, No. 2.

41. *Sturtevant, K.A., **Baker**, G.S., Lord, M., Miller, J., Jewitt, D., Germanoski, D., Chambers, J., 2006, Analyzing geologic controls of riparian meadow complexes using multiple geophysical techniques in the Central Great Basin, NV: *Geological Society of America Southeastern Section Meeting Abstracts with Programs*.
42. *Sturtevant, K.A., **Baker**, G.S., Lord, M., Miller, J., Jewitt, D., Germanoski, D., Chambers, J., 2006, Utilizing multiple geophysical techniques to analyze bedrock geometry and sedimentological controls on riparian meadow complexes in the Central Great Basin, NV: *Geological Society of America Abstracts with Programs*, Vol. 38, No.3.
43. *Wischerath, L.M., *Stokes, P.J., Maletz, J., Briner, J.P., **Baker**, G.S., *Jarzyniecki, N.A., 2006, Evaluating the outreach successes of a NSF-OEDG program for increasing diversity in the geosciences in western New York: *Abstracts with Programs - Geological Society of America*, vol. 38, no. 7, pp.221.
44. *Jarzyniecki, N.A., *Stokes, P.J., **Baker**, G.S., and *Thuman, H.A., 2005, Development of a partnership to increase interest in the geosciences in Buffalo, NY, USA: *Geological Society of America Abstracts with Programs*, Vol. 37, No. 7, p. 447.
45. *Jordan, T.E., **Baker**, G.S., Henn, K., Messier, J-P., 2005, Using Normalized Residual Polarization (NRP) Analysis of Ground Penetrating Radar Data to Detect Jet Propellant in Soils: *American Association of Petroleum Geologists North-Eastern Section meeting*, Morgantown, Pensylvania, September 18-20.
46. *Stokes, P.J., **Baker**. G.S., Birdd, D., Dorsey, D., Splett, J., and Staley, J., 2005, Enhancing diversity in the geosciences: Recruiting for the long run: *Geological Society of America Abstracts with Programs*, Vol. 37, No. 7, p. 261.
47. *Sturtevant, K., **Baker**, G.S., Lord, M.L., Miller, J.R., Jewett, D.G., and Germanowski, D., 2005, Integrating geophysics, geology, and hydrology to determine bedrock geometry controls on the origin of isolated meadow complexes within the Central Great Basin, Nevada: *Geological Society of America Abstracts with Programs*, Vol. 37, No. 7, p. 509.
48. *Sturtevant, K.A., **Baker**, G.S., Snyder, C.F., and Kopczynski S.E., 2004, Hydrogeophysical characterization of bedrock fracture orientations using azimuthal seismic refraction tomography: *Eos, Transactions, American Geophysical Union.*
49. *Talley, J., Becker, M.W., **Baker**, G.S., *Beyrle, N., 2004, Imaging channelized flow in bedrock fractures using ground penetrating radar: *National Ground Water Association / U.S Environmental Protection Agency Fractured Rock Conference*, Burlington, Vermont.
50. *Evenick, J., and **Baker**, G.S., 2003, Improving subsurface structural and stratigraphic analysis using trend surface residual anomaly maps: *Geological Society of America Abstracts with Programs*, *35*, no 7, 338.
51. *Jordan, T.E., and **Baker**, 2003, Amplitude Variation With Offset (AVO) Analysis of Ground Penetrating Radar Data for Direct Detection and Delineation of NAPL Contamination: *Eos, Transactions, American Geophysical Union*.
52. *Mayer, C.A., and **Baker**, G.S., 2003, Azimuthal Resistivity analysis using a capcitively-coupled resistivity meter for determining hydrologic properties: *Eos, Transactions, American Geophysical Union*.
53. *Pyke, K.A., **Baker** G.S., Alley, R., Evenson, E.B., Ensminger, S., Ham, N., Larson, G.J., and Lawson, D.E., 2003, Thick-skinned style glaciotectonics at an ice-cored moraine, Matanuska Glacier, Alaska: *Geological Society of America Abstracts with Programs*, *35*, no 7, 299.

54. *Sturtevant, K.A., **Baker**, G.S., Evenson, E.B., Larson, G.J., and Lawson, D.E., 2003, Tracking ice flow velocity at depth by monitoring metallic targets using ground penetrating radar: *Geological Society of America Abstracts with Programs*, *35*, no 7, 191.
55. *Ambrose, H.M., **Baker**, G.S., Oleson, J.P., Sherwood, A., Reeves, M.B., de Bruijn, E., Pelc, M., 2002, High-Resolution Archaeological Geophysics Survey using Electrical Resistivity, Magnetic Gradiometry, and Ground-Penetrating Radar at a Second-Century Roman Fort, Humayma, Jordan: *GSA 2002 Abstracts with Programs*, 34, no 6, 380.
56. *Johnson, J.J., Strasser, J.C., **Baker**, G.S., 2002, Nature and origin of buried ice within a recessional moraine, Matanuska Glacier, Alaska: *GSA 2002 Abstracts with Programs, 34*, no 2, A-85.
57. *Malinowski, M.A., and **Baker**, G.S., 2002, Experimental Results of Energy and Soil-Moisture Effects on Nonlinear Deformation Associated with Near-Surface Seismic Reflection Sources: *GSA 2002 Abstracts with Programs* , *34*, no 6 150.
58. *Mayer, C.A., and **Baker**, G.S., 2002, Using Rapid Azimuthal Resistivity Surveying for Shallow Fracture Detection and Orientation Analyses in Groundwater Studies: Exp. Abst., *GSA 2002 Abstracts with Programs, 34*, no 2, 229.
59. *Pyke, K., **Baker**, G.S., Ensminger, S., Evenson, E.B., Ham, N., Larson, G., Lawson, D., 2002, Ground Penetrating Radar Imaging of Glaciotectonic Sediment Deformation in an Ice-Cored Moraine Generated by Movement of the Buried Ice During a Re-advance of the Active Ice, Matanuska Glacier, Alaska: *Eos, Transactions, American Geophysical Union*, vol. 83, no. 48, p 392.
60. *Trople, D., **Baker**, G.S., Bigl, R., Larson, G., Evenson, E.B., Lawson, D., 2002, An Innovative Technique for Using Ground Penetrating Radar to Track Ice-Flow Velocities at Depth, Matanuska Glacier, Alaska: *Eos, Transactions, American Geophysical Union*, vol. 83, no. 48, p 428.
61. *McComb, S.W., **Baker**, G.S., and Strasser, J.C., 2001, Tap into student interest by tapping into polar science: GSA Abstracts with Programs.
62. *Pyke, K., **Baker**, G.S., Evenson, E.B., and Larson, G., 2001, Multitool Geophysical Analysis of Glacier Margin Dynamics, Matanuska Glacier, Alaska: *GSA Abstracts with Programs*, 33, no 6, A-230.
63. *Saunders, M.A., **Baker**, G.S., and *Budny, L., 2001, Integrating multiple geophysical methods for the characterization of bedrock geometry, Ischua Valley, New York: *GSA Abstracts with Programs, 33*, no 6, A-230.
64. *Dunlap, M., *Kibler, C., *Drechsel, C., and **Baker** G.S., 2000, Integrated GIS database of recorded earthquakes in the Western New York region: Sigma Xi Research Competition (Univ. at Buffalo Chapter) poster presentation, April 25, 2000.

Other Abstracts (denoted supervised student)*

1. Baldauf, P., **Baker**, G.S., Burkhart, P., Grimley, D.A., Hanson, P., Renshaw, C., and Nichols, J., 2024, Paleoenvironmental significance of the last glacial Red Dog Loess, a Peoria Loess equivalent, White River Badlands, South Dakota, USA: Geological Society of America Abstracts with Programs, Vol. 56, No. 5. doi: 10.1130/abs/2024AM-400875
2. Berti, C., Hopkins, N., Pazzaglia, F., Baker, G.S., and Burkhart, P., 2024, The vision and impact of classroom and field education designed by Ed Evenson: Geological Society of America Abstracts with Programs, Vol. 56, No. 5. doi: 10.1130/abs/2024AM-405615

3. Baldauf, P., Burkhart, P., **Baker**, G.S., Miles, M., Hanson, P, Leibowitz, D., Nelson-Jordan, C., and Renshaw, Corinne, 2023, Red Dog Loess, a Peoria equivalent, last glacial loess of the White River Badlands, South Dakota, USA: Geological Society of America Abstracts with Programs, Vol. 55, No. 6. doi: 10.1130/abs/2023AM-390021
4. Kamola, D., and **Baker**, G.S., 2021, The Birth and death of ebb tidal deltas following Hurricane Irwin, Sapelo Island, Georgia: Geological Society of America Abstracts with Programs. Vol 53, No. 6. doi: 10.1130/abs/2021AM-369000
5. Baldauf, P., **Baker**, G.S., Burkhart, P., Gontz, A., and Levenson, M., 2020, Latest Holocene aeolian activity in the White River Badlands dune fields., South Dakota, Northern Great Plains, USA: Geological Society of America Abstracts with Programs. Vol 52, No. 6, doi: 10.1130
6. Baldauf, P., Gontz, A., **Baker**, G.S., Burkhart, P., and Levenson, M., 2019, Potential linkages between global climate variation and aeolian activity in the White River Badlands dune fields, South Dakota, Northern Great Plains, USA: Geological Society of America Abstracts with Programs. Vol. 51, No. 5**.**
7. Baldauf, P., **Baker**, G.S., Burkhart, P., Hanson, P., Miles, M., Kramer, H.D., 2018, Geomorphic and compositional controls on Late Holocene aeolian reactivation, White River Badlands, South Dakota, *Geological Society of America Abstracts with Programs.* Vol. 50, No. 6.
8. Roberts, J. A., Marshall A.O., McLean, N., **Baker**, G. S., and Moeller, A., 2017, Positive impact of classroom transformation on inequality in DFW rates ("D" or "F" grade, or withdraw) for first-time feshman, females, and underrepresented minorities in two introductory geology courses: Geological Society of America Abstracts with Programs. Vol. 49, No. 6.
9. Roberts, J. A., McLean, N., **Baker**, G. S., and Moeller, A., 2016, Impact of classroom transformation on gender inequality in DFW rates ("D" or "F" grade or Withdraw). Earth Educator's Rendezvous, Madison, Wisconsin, USA.
10. Chen, J., Hubbard, S., Korneev, V., *Gaines, D. P., **Baker**, G.S., and Watson, D., 2008, Stochastic inversion of seismic refraction data with borehole depth constraints for watershed-scale characterization of aquifer geometry: *Eos. Trans.* AGU 89(53), Fall Meeting Suppl., Abstract H44C-06.
11. Axford, Y., Briner, J.P., Francis, D.R., **Baker**, G.S., and Miller, G.H., 2005, Midge-Inferred Temperatures from Three Interglacial Periods in the Eastern Canadian Arctic, *Eos Trans. American Geophysical Union,* Vol. *86*, No. 52.
12. Becker, M.W., *Talley, J.L., **Baker**, G.S., and *Beyrle, N., 2005, Comparing Ideal and Field Tracer Transport in Fractured Bedrock using Ground Penetrating Radar, *Eos Trans. American Geophysical Union,* Vol. *86*, No. 52.
13. Jewett, D.G., Chambers, J.C., Miller, J.R., Lord, M.L., Germanowski, D., and **Baker**, G.S., 2005, An integrated, science-based approach to managing and restoring upland riparian meadows in the Great Basin of Central Nevada: *Geological Society of America Abstracts with Programs*, Vol. 37, No. 7, p. 538.
14. Lord, M.L., Jewett, D.G., Miller, J.R., Germanowski, D., **Baker**, G.S., and Chambers, J.C., 2005, Hydrogeomorphic setting, characteristics, and response to stream incision of montane riparian meadows in the Central Great Basin—Implications for restoration: *Geological Society of America Abstracts with Programs*, Vol. 37, No. 7, p. 538.
15. Germanuwski, D., Miller, J.R., Lord, M.L., Jewett, D.G., Chambers, J.C., **Baker**, G.S., and

Bergman, J., 2005, Reach specific channel stabilization based on comprehensive evaluation of valley fill history, alluvial architecture and groundwater hydrology in a mountain stream in the Central Great Basin, Nevada: *Geological Society of America Abstracts with Programs*, Vol. 37, No. 7, p. 538.

16. Trowbridge, W.B., Germanowski, D., Lord M.L., Jewett, D.G., **Baker**, G.S., and Chambers, J.C., 2005, An interdisciplinary approach to riparian meadow characterization and prioritization, Central Great Basin: *Geological Society of America Abstracts with Programs*, Vol. 37, No. 7, p. 538.
17. Becker, M.W., J. *Talley, G.S. **Baker**, N. *Beyrle, 2004, Flow-Channeling in Fractured Bedrock: Combining GPR, Tracer, and Hydraulic Data, *American Geophysical Union National Fall Meeting,* December 12-17, 2004.
18. Romanowicz, E.A., Paillet, F., Reeve, A., Becker, M.W., **Baker**, G.S., Franzi, D., 2004, Characterizing the Hydraulic Properties of Fractured Bedrock: A Fractured Sandstone Example: *National Ground Water Association / U.S Environmental Protection Agency Fractured Rock Conference*, Burlington, Vermont.
19. Snyder, C.F., G.B.**Baker**, S.Pack, S.E. Kopczynski, and K. Sturtevant, 2004, Partial Derivative Modeling of Shallow Seismic Refraction Tomography Data, Birch Hill Tank Farm, Fort Wainwright, Fairbanks, Alaska: *Eos, Transactions, American Geophysical Union.*
20. Kopczynski S.E., Bigl, R., **Baker**, G.S., Delaney A.J., Finnegan, D.C., Holmes J.V., Andrews, J.L., 2003, Integrated approach to three-dimensionally modeling an aquifer in Alaska: *Geological Society of America Abstracts with Programs*, *35*, no 7, 76.
21. Kopczynski S.E., Snyder, C.F., Myse, T.A., **Baker**, G.S., Bigl, S.R., Finnegan, D.C., Delaney, A.J., and Holmes, J.V., 2003, Coupling near-surface geophysics with three-dimentional geological model building for environmental investigations: *Eos, Transactions, American Geophysical Union*.
22. Astley, B.N., Delaney, A., Bigl, S.R., Snyder, C.F., Lawson, D.E., and **Baker**, G.S., 2000, Combining geophysical techniques for hydrogeologic modeling at Fort Richardson, Alaska: *GSA Abstracts with Programs*, Vol. 32, No. 7.
23. *McIntyre, C., *Walczak, L., and **Baker** G.S., 2000, Swept-frequency acoustic seismic source: Sigma Xi Research Competition (Univ. at Buffalo Chapter) poster presentation, April 25, 2000.
24. Steeples, D.W., Schmeissner, C.M., and **Baker**, G.S., 2000, Applications of and recent developments in shallow seismic reflection: Abstract, SSA 95th Annual Meeting, April 10-12, San Diego, CA, in Seismological Research Letters, vol. 71, no. 2, March/April, p. 231.
25. Stephens, G.C., Starrs, J.E., and **Baker**, G.S., 1999, Results of the Geological and Geophysical Investigations of the Harewood Cemetery, Charles Town, West Virginia - a Cautionary Tale: American Academy of Forensic Sciences Annual Meeting.
26. Evenson, E.B., Myers, P.B., Stephens, G.C., Anastasio, D.J., Bebout, G.E., and **Baker**, G.S., 1998, Sharing the field camp experience with your undergraduates, opportunities for student/faculty group participation: The Lehigh cooperative model: Geol. Soc. Amer., Abs. with Programs, vol 30, no 7.
27. Steeples, D.W., **Baker**, G.S., and Schmeissner, C., 1998, Toward the autojuggie: Planting 72 geophones in 2 seconds: Eos, Transactions, American Geophysical Union, Nov. 10.
28. Steeples, D. W., **Baker**, G. S., Schmeissner, C. M. and Macy, B. K., 1998, Geophones on a board, 68th Ann. Internat. Mtg: Soc. of Expl. Geophys., 862-865.

29. Clement, W.P., **Baker**, G., Weedman, A., Atkins, J., and Smithson, S.B., 1995, Near surface geophysics in the Northern Rock Mountains: Eos, Transactions, American Geophysical Union, vol 76, no 46, 417-418.

Professional Service

Short Courses/Workshops

1. "Introduction to drones (sUAS) in the geosciences," 2024, Short Course, Geological Society of America Annual Meeting, Anaheim California, October 2024.
2. "Introduction to drones (sUAS) in the geosciences," 2021, Short Course, Geological Society of America Annual Meeting, Portland Oregon, October 2021.
3. "Introduction to drones (sUAS) in the geosciences," 2019, Short Course, Geological Society of America Annual Meeting, Phoenix Arizona, September 2019.
4. "FAA Part 107 Remote Pilot Certificate Test Preparation" 2019, Short Course, Johnson County Community College, KS, February 2019.
5. "Introduction to drones (sUAS) in the geosciences," 2018, Short Course, Geological Society of America Annual Meeting, Indianapolis Indiana, November 2018.
6. "FAA Part 107 Remote Pilot Certificate Test Preparation" 2017, Short Course, Johnson County Community College, KS, December 2018.
7. "Introduction to small unmanned aerial systems ("drones") and associated applications in STEM explorations," Workshop, 2018 Earth Educators Rendezvous, Lawrence KS, July 2018.
8. "FAA Part 107 Remote Pilot Certificate Test Preparation" 2017, Short Course, Johnson County Community College, KS, May 2018.
9. "Adopting flipped classroom strategies to enhance active learning in college classrooms," Workshop, 2017 Earth Educators Rendezvous, Albuquerque, New Mexico, July 2017.
10. "Introduction to Near-Surface Geophysics for Non-geophysicists" Short Course, Geological Society of America Annual Meeting, Baltimore MD, November 2015.
11. "Introduction to Near-Surface Geophysics for Non-geophysicists" Short Course, Geological Society of America Annual Meeting, Vancouver Canada, November 2014.
12. "Introduction to Near-Surface Geophysics for Non-geophysicists" Short Course, Geological Society of America Annual Meeting, Denver CO, November 2013.
13. "Introduction to Near-Surface Geophysics for Non-geophysicists" Short Course, Cutting Edge Workshop on Teaching Structural Geology, Geophysics, and Tectonics in the 21st Century, Knoxville Tennessee, August 2012.
14. "Introduction to Near-Surface Geophysics for Non-geophysicists" Short Course, Geological Society of America Annual Meeting, Charlotte NC, November 2012.
15. "Introduction to Near-Surface Geophysics for Non-geophysicists" Short Course, Geological Society of America Annual Meeting, Minneapolis MN, November 2011.
16. "Introduction to Near-Surface Geophysics for Non-geophysicists" Short Course, Geological Society of America Annual Meeting, Denver CO, October 2010.
17. "Geophysics for Water Resources and Contaminants" Short Course, Environmental and Engineering Geophysical Society, Fort Worth TX, March 2009.
18. "Geophysics for Water Resources and Contaminants" Short Course, Environmental and Engineering Geophysical Society, Philadelphia PA, April 2008.
19. "Near-Surface Seismology" Short Course, Society of Exploration Geophysicists (SEG) Education Week Short Course, Houston TX, May 2008.
20. "Near-Surface Seismology" Short Course, Society of Exploration Geophysicists (SEG)

Education Week Short Course, Calgary, Canada, April 2007.
21. "Near-Surface Seismic Reflection Data Acquisition & Processing" Workshop, Department of Geology and Geophysics, Texas A & M, invited workshop, College Station, TX, April 2006.
22. "Near-Surface Seismic Reflection Data Processing" Workshop, Incorporated Research Institutions for Seismology (IRIS), invited workshop, Jackson Hole, WY, June 2001.

Technical Program Chair

1. Symposium on the Application of Geophysics to Engineering & Environmental Problems (SAGEEP), International meeting of the Environmental & Engineering Geophysical Society, Charleston SC, 2011.

Technical Program Committee Member

1. Society of Exploration Geophysicists, 74th Annual Meeting, Denver, CO, 2004.
2. Society of Exploration Geophysicists, 73rd Annual Meeting, Dallas, TX, 2003.
3. Society of Exploration Geophysicists, 72nd Annual Meeting, Salt Lake City, UT, 2002.

Professional Meeting Session Advocate/Convener

1. *The Sky's the Limit: Perspectives, Uses, and Opportunities for Multidisciplinary sUAS (drone) Data in the Geosciences*: 2024, co-convener with P. Berquist: Geological Society of America Abstracts with Programs, Anaheim CA.
2. *Evolving Understanding of the Mechanics, Sedimentology, and Landscapes of Glaciers and Glaciation: a Tribute to Dr. Ed Evenson*, 2024, co-convener with P. Burkhart and P. Baldauf: Geological Society of America Abstracts with Programs, Anaheim CA.
3. *The Environmental Impacts of War and Conflict*, 2020, co-convener with P. Baldauf and P. Burkhart: Geological Society of America Abstracts with Programs, Vol 52, No. 6, doi: 10.1130.
4. *Savor the Cryosphere*, 2015, co-convener with P. Baldauf and P. Burkhart, Geological Society of America Annual Meeting, Baltimore MD.
5. *Practical Faculty-Related Issues Associated with Classroom Transformation*, 2015, co-convener with J. Roberts: Geological Society of America Annual Meeting, Baltimore MD.
6. *Utilizing 2D and 3-D Near-Surface Geophysics to Generate Improved Surface and Subsurface Geologic Maps*, Society of America 2015 Annual Meeting, Baltimore MD.
7. *In the footsteps of Darwin the geologist: Celebrating Darwin's 200th birthday*, Pardee session at the Geological Society of America 2009 Annual Meeting, Portland Oregon.
8. *Multitool Data Fusion*, Society of Exploration Geophysicists, 76th Annual Meeting, New Orleans, Louisiana.
9. *Hydrogeophysics*, Society of Exploration Geophysicists, 76th Annual Meeting, New Orleans, Louisiana.
10. *Seismic Reflection Acquisition and Processing*, Society of Exploration Geophysicists, 76th Annual Meeting, New Orleans, Louisiana.
11. *Multitool Data Fusion*, Society of Exploration Geophysicists, 74th Annual Meeting, Denver, Colorado.

12. *Hydrogeophysical Investigations*, Society of Exploration Geophysicists, 74th Annual Meeting, Denver, Colorado.
13. *Seismic Acquisition and Processing*, Society of Exploration Geophysicists, 74th Annual Meeting, Denver, Colorado.
14. *Experimental Geophysics*, Society of Exploration Geophysicists, 74th Annual Meeting, Denver, Colorado.
15. *Recent Advances in Hydrogeophysics,* Geological Association of Canada, the Mineralogical Association of Canada 2004 Annual Meeting, St. Catharines, ON, Canada.
16. *Advances in Stratigraphic Analyses Using Ground Penetrating Radar,* Geological Society of America 2003 Annual Meeting, Seattle, Washington.
17. *Seismic and GPR*, Society of Exploration Geophysicists, 73rd Annual Meeting, Salt Lake City, UT, 2003
18. *New Directions in Near-Surface Geophysics*, Society of Exploration Geophysicists, 73rd Annual Meeting, Salt Lake City, UT, 2003
19. *Geophysical Evaluation of Aquifer Properties*, Geological Society of America 2002 Annual Meeting, Denver, Colorado.
20. *Field Camp Pedagogies: Adjusting to Modern Equipment and the Modern Student*, Geological Society of America 1998 Annual Meeting.

Professional Meeting Session Chairman/Co-Chairman

1. *Evolving Understanding of the Mechanics, Sedimentology, and Landscapes of Glaciers and Glaciation: a Tribute to Dr. Ed Evenson*, 2024, co-convener with P. Burkhart and P. Baldauf: Geological Society of America Abstracts with Programs, Anaheim CA.
2. *The Environmental Impacts of War and Conflict*, Geological Society of America 2020 Annual Meeting, Montreal, Quebec, Canada.
3. *Savor the Cryosphere*, Society of America 2015 Annual Meeting, Baltimore MD.
4. *Practical Faculty-Related Issues Associated with Classroom Transformation*, Society of America 2015 Annual Meeting, Baltimore MD.
5. *Utilizing 2D and 3-D Near-Surface Geophysics to Generate Improved Surface and Subsurface Geologic Maps*, Society of America 2015 Annual Meeting, Baltimore MD.
6. *In the footsteps of Darwin the geologist: Celebrating Darwin's 200th birthday*, Pardee session at the Geological Society of America 2009 Annual Meeting, Portland Oregon.
7. *Hydrogeophysical Investigations*, Society of Exploration Geophysicists, 74th Annual Meeting, Denver, Colorado.
8. *Hydrogeology II: Process Investigations,* Geological Society of America 2004 Annual Meeting, Denver, Colorado
9. *Advances in Stratigraphic Analyses Using Ground Penetrating Radar,* Geological Society of America 2003 Annual Meeting, Seattle, Washington.
10. *Seismic and GPR*, Society of Exploration Geophysicists, 72nd Annual Meeting, Salt Lake City, UT, 2003
11. *Geophysical Evaluation of Aquifer Properties,* Geological Society of America 2002 Annual Meeting, Denver, Colorado.
12. *Influence of Soil Properties on Near Surface Geophysical Measurements,* Society of Exploration Geophysicists 1999 International Exposition and 69th Annual Meeting.
13. *Field Camp Pedagogies: Adjusting to Modern Equipment and the Modern Student*,

Geological Society of America 1998 Annual Meeting.
14. *Glaciology*, Seventh International Conference on Ground-Penetrating Radar, 1998.
15. *Shallow Marine Geophysics*, Society of Exploration Geophysicists 1998 International Exposition and 68th Annual Meeting.

Organizational Memberships and Offices Held

1. American Geophysical Union, Member, 1994-present
2. Environmental and Engineering Geophysics Society
   Member, 1998-present
   Member At Large, Board of Directors, 2006-2010
3. Geological Society of America, Member, 1997-present
4. National Association of Geoscience Teachers (NAGT), Member, 1999-present
   Member, NAGT/USGS/AASG cooperative group, 2003-2010
5. NSCOMM, Inter-Society Committee for the Advancement of Near-Surface Geophysics. Composed of Rosemary Knight-Stanford Univ, Jeff Daniels-Ohio State Univ; Louise Pellerin-European SEG representative; Jeff Wynn-US Geological Survey and 2002 president of the EEGS society; Susan Hubbard-Lawrence Berkley Nat'l Lab; Pat Berge-Lawrence Livermore Nat'l Lab, and Gregory S Baker EEGS reprsentative
6. Sigma Xi (Full Member), 2000-present
7. Society of Exploration Geophysicists: Elected Active Member 1999-present
   Past-President of Near-Surface Geophysics Section of SEG, 2004-2005
   President of Near-Surface Geophysics Section of SEG, 2003-2004
   President-Elect of Near-Surface Geophysics Section of SEG, 2002-2003
   Vice-President of Near-Surface Geophysics Section of SEG, 2001-2002
   Editor of the Near-Surface Geophysics Section bimonthly newsletter, 2000-2001
   Secretary of Near Surface Geophysics Section of SEG, 1999-2000
8. Sigma Gamma Epsilon (SGE, National Honor Society for the Earth Sciences), Awarded membership from the University of Kansas (Alpha Chapter) 1999. Member 1999-present.

Scientific Reviews

Journal Manuscript Reviews

1. *Geophysics* (1, 1998; 3, 1999; 4, 2000; 6, 2001; 12, 2002; 7, 2003; 3, 2004; 4, 2005; 2, 2006; 4, 2007; 6, 2008; 2, 2009; 4, 2010; 2, 2011; 2, 2012; 4, 2014; 3, 2015; 2, 2017; 2, 2018)
2. *Journal of Applied Geophysics* (1, 1998; 1, 1999; 2 2002; 1, 2005; 1, 2006; 3, 2008; 1, 2009)
3. *Geophysical Research Letters* (2, 1999; 2, 2001; 3, 2005; 1, 2006, 2, 2007; 3, 2008; 2, 2009; 4: 2012; 5, 2014; 1, 2017)
4. *International Journal of Remote Sensing* (1, 2001)

Grant Proposal Reviews

1. Department of Energy (1; 2005; 3, 2006; 6, 2008; 2, 2009; 12, 2010; 4, 2012; 1 2021)

2. National Science Foundation (1, 1999; 4, 2000; 5, 2001; 4, 2002; 3, 2003; 2, 2004; 5, 2005; 2, 2006; 6, 2007; 4, 2008; 3, 2009; 2, 2010; 3, 2011; 2, 2012; 3, 2014)
3. Natural Environment Research Council (1, 2000; 1, 2002; 1, 2005; 1, 2009)
4. Swiss National Science Foundation (1, 2009)

Abstract Reviews

1. Society of Exploration Geophysicists Expanded Abstracts for Annual Meetings (2, 1998; 4, 1999; 4, 2000; 26, 2002; 18, 2003; 32, 2004; 20, 2005; 18, 2006; 9, 2007; 6, 2008; 12, 2017)
2. Proceedings of the International Conference on Ground-Penetrating Radar (4, 1998; 6, 2006)
3. Symposium on the Application of Geophysics to Engineering and Environmental Problems (3, 2000; 3, 2001; 8, 2007; 4, 2008; 6, 2010; 41, 2011; 4, 2012)

Book Reviews

1. American Association for the Advancement of Science (2, 2000; 1, 2001; 1, 2002; 1, 2003; 1, 2007)

Invited Lectures and Presentations (without published abstract)

1. "Tone, expectations, growth, and closure: The importance of methodical first and last days of an undergraduate course" invited talk at the Spring 2025 Faculty Teaching Showcase, April 18th, 2025.
2. "Quantifying the impacts of active learning on student success" Invited seminar presented for the Colorado Mesa University Faculty Colloquium, April 3rd, 2024.
3. "Quantitative applications of sUAS (drone) technology in monitoring recent and historical mass wasting/landslide events, Colorado USA" Invited seminar presented to the Pennsylvania Council of Professional Geologists, February 13th, 2023.
4. "Drone Applications in the Geosciences" Invited seminar presented to the Grand Junction Geological Society, Colorado Mesa University, January 2020.
5. "Advances in Hydrogeophysics" Invited seminar presented to the Department of Physical & Environmental Sciences, Colorado Mesa University, April 2019.
6. "Advances in Hydrogeophysics" Invited seminar presented to the Department of Geology, Slippery Rock University AND The Pittsburgh Geological Society, Pittsburgh, Jan 2012.
7. "Advances in Hydrogeophysics" Invited seminar presented to the Department of Geology, West Chester University, West Chester PA, November 2012.
8. "Advances in Hydrogeophysics" Invited seminar presented to the Department of Geology & Geophysics, Univ. of Wyoming, Laramie, September 2012.
9. "Improving student comprehension of scientific and societal complexities associated with energy resources through a field-based strategy" Invited workshop presentation for a workshop on *Teaching Energy Awareness: Understanding Sources and Uses* sponsored by the Climate Literacy and Energy Awareness (CLEAN) Pathway project, April 2011.
10. "Advances in Hydrogeophysics" Invited seminar presented to the Department of

Geology, Univ. of Kentucky, Lexington, October 2010.
11. “Advances in Hydrogeophysics” Invited seminar presented to the Department of Geology, Williams College, Massachusetts, April 2010.
12. “Geophysics for Water Resources and Contaminants” Invited seminar for EEGU (the public educational forum of the Environmental and Engineering Geophysical Society), Fort Worth TX, April 2009.
13. “New Geophysical Methods for detection of NAPL” Invited seminar presented to the Remedial Systems Optimization Initiative, Las Vegas NV, February 2008.
14. “Advances in Hydrogeophysics” Invited seminar presented to the Department of Geology, State University of New York at Geneseo, “Fifth Annual American Rock Salt Lecturer” April 2008.
15. “Geophysics for Water Resources and Contaminants” Invited seminar for EEGU (the public educational forum of the Environmental and Engineering Geophysical Society), Philadelphia PA, April 2008.
16. "Recent advances of seismic applications in environmental geophysics," Invited lecture presented at the International Conference on Environment and Engineering Geophysics (ICEEG), Wuhan, China, June 16-20, 2008. (Special invited guest of the China University of Geosciences.)
17. “Advances in Hydrogeophysics” Invited seminar presented to the Department of Geology and Geophysics, Texas A & M, invited workshop, College Station, TX, April 2006.
18. “Alpine glaciers, bedrock fractures, groundwater pollutants, evolving mountain-belts, Mars analogues, Roman forts: The many faces of near-surface geophysics,” Invited seminar presented to the Dept. of Earth and Environmental Sciences, Lehigh University, April 2005.
19. “Alpine glaciers, bedrock fractures, groundwater pollutants, evolving mountain-belts, Mars analogues, Roman forts: The many faces of near-surface geophysics,” Invited seminar presented to the Dept. of Earth and Planetary Sciences, University of Tennessee, February 2005.
20. “Hydrogeophysics and Fractured Rock Applications,” Invited seminar presented at the Buffalo Association of Professional Geologists (BAPG), Buffalo NY, November 2004.
21. “Applications of Near-Surface Geophysical Imaging in Jordanian Archaeology and Alaskan Glaciology,” Invited seminar presented to the Dept. of Geology and Planetary Sciences, University Pittsburgh, October 2004.
22. "Hydrogeophysics and Fractured Rock Applications," Invited seminar presented at the Geomatrix 2004 Hydrogeology Discipline Meeting, Buffalo NY, September 2004.
23. "Applications of Near-Surface Geophysical Imaging in Jordanian Archaeology and Alaskan Glaciology," Invited seminar presented to the Dept. of Geology, University at Buffalo, April 2003.
24. "Fire and Ice: Applications of Near-Surface Geophysical Imaging in Jordanian Archaeology and Alaskan Glaciology," Invited seminar presented to the Dept. of Geology, University of Delaware, February 2003.
25. "Fire and Ice: Applications of Near-Surface Geophysical Imaging in Jordanian Archaeology and Alaskan Glaciology," Invited seminar presented to the Dept. of Geology, University of Kansas, February 2003.
26. “Sparkplugs, Farm Plows, and Speakers: Stupid (but successful) Experiments of a Geophysicist,” Invited seminar presented to the Dept. of Geology at SUNY Binghamton,

February 2001.
27. "Sparkplugs, Farm Plows, and Speakers: Stupid (but successful) Experiments of a Geophysicist," Invited seminar presented to the Dept. of Geology at SUNY Geneseo, October 2001.
28. "Sparkplugs, Farm Plows, and Speakers: Stupid (but successful) Experiments of a Geophysicist," Invited lecture presented at the Western New York Science and Technology Forum, University at Buffalo, Oct. 18, 2000.
29. "Sparkplugs, Farm Plows, and Speakers: Stupid (but successful) Experiments of a Geophysicist," Invited seminar presented to the Dept. of Geology at Slippery Rock University, Oct. 25, 2000.
30. "Applications and Technological Advances in Environmental Geophysics," Invited seminar presented to the Dept. of Geology at the University of Massachusetts, Oct. 15, 1999.
31. "Geophysical Reflection Imaging of Near-Surface Stratigraphy," Invited seminar presented to the Dept. of Geology at Wright State University, April 8, 1999.
32. "Geophysical Reflection Imaging of Near-Surface Stratigraphy," Invited seminar presented to the Dept. of Geology at The University of Kansas, March 18, 1999.
33. "Geophysical Reflection Imaging of Near-Surface Stratigraphy," Invited seminar presented to the Dept. of Geology at SUNY Stony Brook, March 5, 1999.
34. "Geophysical Reflection Imaging of Near-Surface Stratigraphy," Invited seminar presented to the Dept. of Earth and Atmospheric Science at Purdue University, March 2, 1999.
35. "Geophysical Reflection Imaging of Near-Surface Stratigraphy," Invited seminar presented to the Dept. of Geology at Kansas State University, Feb. 2, 1999.

Public Relations/Publicity

1. "The Geology Behind Sandstone Arches—how do they form?," written by Timothy Schuman for *KREX WesterSlopeNow.com* video & article published online February 12th, 2024.
2. "A Geologist's Dream," written by Kelsey Coleman for *CMU Now* article published online December 17th, 2020.
3. "The Grand Valley Rocks," written by Katlin Birdsall for *CMU Now* article published online October 23rd, 2019.
4. "Understanding the KY earthquake," interviewed by Ben Senger and filmed, WBIR Channel 10 news, and aired on 11/8/12.
5. "University professor incorporates Japan earthquake tragedy into course," interviewed by Ben Senger and lecture/students filmed, WBIR Channel 10 news, and aired on 4/8/11.
6. "Darwin's geological mystery solved." By R. Lovett, in *Nature* (2009). (https://doi.org/10.1038/news.2009.1022)
7. "Private sector slowly following government's lead," interviewed by Josh Flory, Knoxville News Sentinel, and published 4/21/08.
8. "Sites on the solar energy tour," interviewed by Josh Flory, Knoxville News Sentinel, and published 9/29/08.
9. "Knoxville roofs catch some rays—solar tour to display panels at private

homes/businesses," interviewed by David Smith, Knoxville News Sentinel, and published 9/30/08.

10. "Karst and sinkholes in East Tennessee," interviewed by Ben Senger, WBIR Channel 10 news, and aired on 2/24/06.
11. "Geophysics, GPS Technology Play Important Roles In Excavation Of Ancient Roman Fort," on University at Buffalo National News 10/22/04, www.buffalo.edu/news.
12. "Geophysics, GPS Technology Play Important Roles In Excavation Of Ancient Roman Fort," on ScienceDaily 10/25/04, www.sciencedaily.com.
13. "Geophysics, GPS Technology Play Important Roles In Excavation Of Ancient Roman Fort," on Archaeologica 10/25/04, www.archaeologica.com.
14. "Glaciers at Work," written by Jan A Piotrowski, in "News and Views" review in *Nature*, 14 August 2003, Volume 424, 737-738.
15. "Dirty Glaciers: Research Explains Why Some Glaciers Get Dirty," written by Lee Dye, on ABCNEWS.com, August 21st, 2003.
16. "UB professor talks about bringing more and different people into the field of earth sciences," on WBFO by Gabe DiMaio, January 3rd, 2003.
17. "Using non-invasive tools, UB Geophysicists find an ancient settlement buried beneath a Roman fort in the Jordanian Desert," on WBFO by Gabe DiMaio, November 29th, 2002
18. "Romans on top" (Geophysics for Archaeology), *New Scientist*, vol 176 issue 2368 - 09 November 2002, page 26.
19. "Geophysicists find ancient settlement" by Ellen Goldbaum 2002, *UB Reporter*, *34*, no 6, 4.

Professional and Academic Honors in Reverse Chronological Order

1. Elected lifetime Fellow of the *Geological Society of America*, May 2024. Society Fellowship is an honor based on election at the spring GSA Council meeting. GSA Fellows are awarded in recognition of a sustained record of distinguished contributions to the geosciences and the Geological Society of America.
2. Supervised undergraduate student KennaLee Worster, 1st Place Undergraduate Poster Competition, Hydrogeology Division, Geological Society of America national conference (GSA Connects), Pittsburgh, PA, October 2023.
3. Awarded "Highlight Publication" for DOE Subsurface Biogeochemical Research (SBR) program (Kowalsky, M. B., E. Gasperikova, S. Finsterle, D. Watson, G. **Baker**, and S. S. Hubbard, 2011, Coupled modeling of hydrogeochemical and electrical resistivity data for exploring the impact of recharge on subsurface contamination, *Water Resour. Res*., 47), April 26, 2011
4. TASC, Inc. (The Analytic Sciences Corporation), Recognition Award ("For outstanding contributions to TASC in the 2010 IRAD Program"), September 15 2010.
5. Early Career Award, awarded in 2008 by the Environmental & Engineering Geophysical Society, to acknowledge "academic excellence in the field of near-surface geophysics." The award, presented annually to a full-time faculty member who is within ten years following completion of the Ph.D., acknowledges "significant and ongoing contributions to environmental and engineering geophysics."
6. Quest Scholar of the Week, University of Tennessee, April 10 2009
7. Outstanding Service award, Near-surface Geophysics Section of the Society of Exploration Geophysicists, Presented Fall 2005
8. Certificate of Recognition, University at Buffalo Class of 2003 "Year After Graduation" Student Survey of Undergraduate and Graduate Students, Presented Spring 2005
9. Selected to University at Buffalo, College of Arts and Sciences Honor Roll of Top Teachers, 2003-2004
10. Selected to University at Buffalo, College of Arts and Sciences Honor Roll of Top Teachers, 2002-2003
11. Selected to University at Buffalo, College of Arts and Sciences Honor Roll of Top Teachers, 2001-2002
12. Milton Plesur 2001 Excellence in Teaching Award, presented by the Student Association of the University at Buffalo (SUNY) to recognize teaching excellence and commitment to students. Recipients of the Plesur award are student-nominated and selected.
13. Top-25 ranked technical presentation (out of 587) at Society of Exploration Geophysicists (SEG) 1999 National meeting
14. Erasmus Haworth Graduate Honors Award for Outstanding Doctoral Student, Dept. of Geology, Univ. of Kansas, 1999
15. Outstanding Graduate Teaching Award, Dept. of Physics and Astronomy (Intro. to Meteorology), Univ. of Kansas, 1998
16. Dean A. McGee Scholarship, Dept. of Geology, Univ. of Kansas, 1996 - 1998
17. Society of Exploration Geophysicists (SEG) Scholarship, 1996 - 1999
18. Donnel Foster Hewett Award, Dept. of Earth and Env. Sci., Lehigh University, 1992
19. Top Field Geologist Award, Dept. of Earth and Env. Sci., Lehigh University, 1991

University Service (Colorado Mesa University, 2019-present)

University

1. Assessment Committee (2020-present)
    i. Secretary (2022-2024)
    ii. Chair (2024-present)
2. Advisory Board Member, Hutchins Water Center (2020-present)
3. Chair, Ad-Hoc Committee on Assessment Culture (2023-2024)
4. Promotion & Tenure Committee (2022-2023)
5. Higher Learning Commission (HLC) Criterion 2 Committee Member (2022-2023)
6. New Mavs Day, Geology Program Orientation Leader (August 2023; August 2024)
7. Participant, *Forming the Future* faculty/staff/student workshop (September 2022)
8. Ad Hoc *Essential Learning Working Gro*up (2020-2021)
9. Sabbatical Committee (2019-2022)
10. Steering Committee for *CMU Water Ed Needs Assessment*, Hutchins Water Center (2020-2022)
11. *Center for Teaching and Learning* Activities (2023-present)
    i. *Faculty Teaching Showcase*. Presented "Tone, expectations, growth, and closure: The importance of methodical first and last days of an undergraduate course" (April 18, 2025)
    ii. *Failure and Resilience Teaching Strategies*. Workshop led by Kate Belknap (April 8, 2025)
    iii. *Curriculum Craftmanship.* Workshop led by Kate Belknap (February 14, 2025)
    iv. *Hard versus Soft Teaching Styles.* Workshop led by Kate Belknap (November 21, 2024)
    v. *Using the Dignity Index.* Workshop led by Kate Belknap (October 15, 2024)
    vi. Participant in *Want to Learn How to Foster More Collaborative Conversations?* Presentation by Tami Pyfer of *UNITE, co-creator of the Dignity Index* (March 11, 2024)
    vii. Participant in *How to faculty learn to teach?* by Dr Kate Belknap (February 7 2024)
    viii. Participant in *AI in Course Design (November 2023)*
    ix. Participant in workshop on *Authentic Assessment (October 2023)*
12. CMU Teacher 2 Teacher (T2T) Activities (2020-present)
    i. Participant in *Peer Coaching* with partner Dr Zac Hestand (Spring 2025) including mutual classroom observations and collaborative discussions
    ii. Participant in *Peer Coaching* with partner Dr Laurena Davis (Fall 2024) including mutual classroom observations and collaborative discussions
    iii. Participant in *Peer Coaching* with partner Dr Katie McClain (Spring 2024) including mutual classroom observations and collaborative discussions
    iv. Participant in *Open Educational Resources* workshop (March 2023)
13. Participant in *CRM Advise* training workshop (February 2020)
14. CMU Forum/Colloquium Talks
    i. Tim Casey & President Marshall (February 2023)
    ii. Timothy Winegard on *The Horse* (Sept 2024)
15. *Mesa Experience* representative, Dept. of Physical & Environmental Sciences (March 2025;

March 2024; October 2023; November 2022; February 2022; October 2021; February 2020; October 2019)
16. Table Host, *Etiquette Dinner*, Sponsored by Career Services (Fall 2021, Fall 2020, Fall 2019)

Department of Physical and Environmental Sciences
1. Faculty advisor, Sigma Gamma Epsilon (SGE) Honors Society, Zeta Nu Chapter, 2019-present
2. Assessment Coordinator, Dept. of Physical & Environmental Sciences, 2020-present
3. Search committee Chair, Field Camp Co-Instructor, 2023, 2024, 2025
4. Faculty search committee member, Geology Program, Structural Geologist/Petrologist, 2022-2024 (successful hire)
5. Majors Fair Department Representative, Spring 2021
6. Faculty search committee member, Geology Program, Structural Geologist/Petrologist, 2022-2023 (failed search)
7. Search committee member, Field Camp Instructor, 2020-2021
8. Faculty search committee member Environmental Science Program, Restoration Ecologist, 2021-2022
9. Faculty search committee member Geology Program, Clastic Sedimentologist, 2019-2020

Geology Program
1. Director, Summer Geology Field Program, 2022-present
2. Program Assessment Coordinator, Geology Program, 2021-present
3. Director of Watershed Sciences Minor in PES, 2020-present
4. Ad Hoc Committee: Environmental Geology Major & Watershed Science Minor curriculum redesign, 2019-2021

University Service (University of Kansas, 2015-2019)

University
1. N/A

College of Arts and Sciences
1. Center for Teaching Excellence (CTE) Teaching Fellow, 2016

Department of Geology
1. Introductory Course Lab Redesign, Dept. of Geology, 2016

University Service (University of Tennessee, 2005-2014)

University
1. Undergraduate Council, 2012-2014
2. Ambassador: University of Tennessee Teaching & Learning Center (TENN TLC), 2009-2014
3. Member: Classroom & Instructional Technology Improvement Subcommittee (Dr. Bill Dunne, Subcommittee Chair), 2006-2010
4. Member: Synchronous Learning Task Force (Dr. Bill Dunne, Task Force Chair), 2007-2008

College of Arts and Sciences

1. Undergraduate Curriculum Committee, College of Arts and Sciences, 2012-2014
2. Undergraduate Advisor, College of Arts and Sciences Advising Center, 2005-2009
3. Member, Earth & Planetary Sciences Department Head search committee, 2008-2009

Department of Earth & Planetary Sciences

1. Director of Undergraduate Studies, Dept. of Earth and Planetary Sciences, 2010-2012
2. Field Camp Advisor, Dept. of Earth and Planetary Sciences, 2005-2012
3. Chair, Departmental Teaching Peer Review Committee (Dr. Devon Burr), 2011
4. Member, Undergraduate Studies Committee, Dept. of Earth and Planetary Sci., 2005-2010
5. Chair, Adjunct Faculty Appointments Committee, 2008-2010
6. Chair, Departmental Teaching Peer Review Committee (Dr. Micah Jessup), 2009
7. Chair, Geology Introductory Course Sequence Evaluation Committee (GICSEC), 2006-2007
8. Member: Faculty Search Committee, Structural Geologist Position, Fall 2005

University Service (University at Buffalo, 1999-2005)

University

1. Alternate Representative, University at Buffalo Faculty Senate, 1999-2004
2. Founder, *University at Buffalo Journal of Undergraduate Research* (UBJUR), 2001
3. Editor, *University at Buffalo Journal of Undergraduate Research* (UBJUR), 2001-2005

College of Arts and Sciences

1. Member, College of Arts and Sciences Student Academic Life Committee, Univ. at Buffalo, 2000-2004

Department of Geology

1. Director of Undergraduate Studies, Department of Geology, 2000-2005
2. Director, Summer Geology Field Program ("Field Camp"), Department of Geology, 2001-2005
3. Departmental Web Site Supervisor, Dept. of Geology, 2000-2004
4. Chairman, Department of Geology Rock Garden Committee, Dept. of Geology, 2000-2002
5. Member, Technician Search Committee, Dept. of Geology, 2002
6. Member, BS Degree Program Development Committee, Dept. of Geology, 2000
7. Member, Introductory Course Restructuring Committee, Dept. of Geology, 2000-2002

Community Service

1. Member, Mesa County Hazard Mitigation Planning Team meeting, November 12th 2024.
2. Presentation for the Colorado Canyons Association "Lecture Series" via webinar, March 7th 2023.
3. Presentation to "Seniors for Creative Learning" at John T. O'Connor Senior Center, Oct. 2009.
4. Member, 2009 Knox County Solar Tour, Knoxville TN, 2009, 2010
5. Pro-bono consulting for Old Virginia Beaureu of Investigation, Roanoke VA, 2007
6. Board of Directors, Western New York Land Conservancy, East Aurora, NY, 2000-2004
7. Pro-bono consulting for Old Fort Niagara Association at the Fort Niagara Site, Niagara Falls, NY, 2001-2004
8. Pro-bono consulting for Gettysburg Historical Association at a site near the Gettysburg battlefield, Gettysburg, PA, 2002-2004
9. Pro-bono consulting for Buffalo Conservation Coalition at the Erie Canal Terminus Site, Downtown Buffalo, NY, 2000

Courses Taught (Colorado Mesa University, 2019-present)

Semester	Course*	Title	Credit Hours	Enrol.
Spring 2025	GEOL 108	Water, People, and the Environment	3	38
Spring 2025	GEOL 112/112L	Historical Geology	3	16
Spring 2025	GEOL 113/113L	Field Based Introduction to Physical Geology	4	10
Spring 2025	GEOL 496	Topics: Drones in the Geosciences	3	12
Spring 2025	GEOL 497	Structured Research	1	1
Fall 2024	GEOL 103	Weather and Climate	3	97
Fall 2024	GEOL 108	Water, People, and the Environment	3	38
Fall 2024	GEOL 301/301L	Structural Geology	4	10
Fall 2024	GEOL 415/415L	Introduction to Ground Water	4	12
Spring 2024	GEOL 108	Water, People, and the Environment	3	17
Spring 2024	GEOL 112/112L	Historical Geology	3	9
Spring 2024	GEOL 113/113L	Field Based Introduction to Physical Geology	4	7
Spring 2024	GEOL 496	Topics: Drones in the Geosciences	3	12
Spring 2024	GEOL 497	Structured Research	3	1
Fall 2023	GEOL 103	Weather and Climate	3	62
Fall 2023	GEOL 108	Water, People, and the Environment	3	20
Fall 2023	GEOL 301/301L	Structural Geology	4	9
Fall 2023	GEOL 415/415L	Introduction to Ground Water	4	10
Fall 2023	GEOL 497	Structured Research	1	1
Summer 2023	GEOL 108	Water, People, and the Environment	3	4
Summer 2023	GEOL 480	Summer Field Camp (6 weeks)	6	8
Spring 2023	GEOL 108	Water, People, and the Environment	3	11
Spring 2023	GEOL 112/112L	Historical Geology	4	9
Spring 2023	GEOL 113/113L	Field Based Introduction to Physical Geology	4	9
Spring 2023	GEOL 496	Topics: Drones in the Geosciences	3	9
Fall 2022	GEOL 100	Survey of Earth Science	3	29
Fall 2022	GEOL 103	Weather and Climate	2	74
Fall 2022	GEOL 113/113L	Field Based Introduction to Physical Geology	4	23
Fall 2022	GEOL 415/415L	Introduction to Ground Water	4	6
Summer 2022	GEOL 480	Summer Field Camp (6 weeks)	6	8
Spring 2022	GEOL100	Survey of Earth Science	3	24
Spring 2022	GEOL 112/112L	Principles of Historical Geology	4	16
Spring 2022	GEOL 113/113L	Field Based Introduction to Physical Geology	4	18
Spring 2022	GEOL 497	Structured Research	1	1
Fall 2021	GEOL 100	Survey of Earth Science	3	53
Fall 2021	GEOL 103	Weather and Climate	2	91
Fall 2021	GEOL 113/113L	Field Based Introduction to Physical Geology	4	10
Fall 2021	GEOL 415/415L	Introduction to Ground Water	4	15
Summer 2021	GEOL 480	Summer Field Camp (taught 2 weeks out of 6 total)	2 (6)	16
Spring 2021	GEOL100	Survey of Earth Science	3	28
Spring 2021	GEOL 113/113L	Field Based Introduction to Physical Geology	4	8
Spring 2021	GEOL496/496L	Topics: Introduction to Drones in the Earth Sciences	4	7
Spring 2021	GEOL 497	Structured Research	1	2

Fall 2020	GEOL 100	Survey of Earth Science	3	33
Fall 2020	GEOL 103	Weather and Climate	2	97
Fall 2020	GEOL 113/113L	Field Based Introduction to Physical Geology	4	16
Fall 2020	GEOL 415/415L	Introduction to Ground Water	4	6
Summer 2020	GEOL 496	Topics: Field Methods in Hydrogeology	4	2
Spring 2020	GEOL100	Survey of Earth Science	3	35
Spring 2020	GEOL 113/113L	Field Based Introduction to Physical Geology	4	14
Spring 2020	GEOL 415/415L	Introduction to Ground Water	4	4
Fall 2019	GEOL 100	Survey of Earth Science	3	96
Fall 2019	GEOL 103	Weather and Climate	2	100
Fall 2019	GEOL 111L	Geology Laboratory (Section 001)	1	22
Fall 2019	GEOL 111L	Geology Laboratory (Section 007)	1	18
Fall 2019	GEOL 355	Basic Hydrology	3	18

Courses Taught (University of Kansas, 2015-2020)

Semester	**Course***	**Title**	**Credit Hours**	**Enrmt. Ugr/Gr**
Summer 2021	Geology 556	Field Methods in Hydrogeology	3	19
Spring 2021	Geology 552	Introduction to Hydrogeology	3	6/13
Summer 2021	Geology 556	Field Methods in Hydrogeology	3	14
Spring 2020	Geology 552	Introduction to Hydrogeology	3	18
Fall 2017	Geology 171	Earthquakes and Natural Disasters	3	61
Fall 2017	Geology 103	Introductory Geology Laboratory	2	160
Spring 2016	Geology 171	Earthquakes and Natural Disasters	3	47
Fall 2015	Geology 775	Near Surface Seismology	3	0/5

Courses Taught (Johnson County Community College, 2018-2019)

Semester	**Course***	**Title**	**Credit Hours**	**Enrmt. Ugr/Gr**
Winter 2018	JCCC 2675	Part 107 Test Preparation for Drone Pilot License	1	4
Summer 2018	JCCC 2675	Part 107 Test Preparation for Drone Pilot License	1	6
Fall 2018	JCCC 2675	Part 107 Test Preparation for Drone Pilot License	1	11

Courses Taught (South Dakota School of Mines and Technology, 2014-2018)

Semester	**Course***	**Title**	**Credit Hours**	**Enrmt. Ugr/Gr**
Summer 2018	Geology 410	Field Geology (South Dakota and Wyoming)	6	21
Summer 2017	Geology 410	Field Geology (South Dakota and Wyoming)	6	28
Summer 2016	Geology 410	Field Geology (South Dakota and Wyoming)	6	32
Summer 2015	Geology 410	Field Geology (South Dakota and Wyoming)	6	29
Summer 2014	Geology 410	Field Geology (South Dakota and Wyoming)	6	28

Courses Taught (Illinois Wesleyan University, 2014-2015)

Semester	Course*	Title	Credit Hours	Enrmt. Ugr/Gr
Spring 2015	ENST 110	Earth Systems Science	3	25
Fall 2014	ENST 115/ PHYS 120	Energy and Society	3	14
Fall 2014	ENST 110	Earth Systems Science	3	14
Spring 2014	ENST 270	Introduction to GIS	3	13
Spring 2014	ENST 110	Earth Systems Science	3	24

Courses Taught (University of Tennessee, 2005-2013)

Semester	Course*	Title	Credit Hours	Enrmt. Ugr/Gr
Spring 2013	Geology 548	Sequence Stratigraphy	3	4/8
Spring 2013	Geology 596	Oral Communication of Scientific Ideas	1	10
Fall 2012	Geology 101	Dynamic Earth	4	213
Spring 2012	Geology 471	Applied Geophysics	3	16
Fall 2012	Geology 101	Dynamic Earth	4	283
Spring 2011	Geology 470/570	Applied Geophysics	3	8/10
Fall 2010	Geology 101	Dynamic Earth	4	148/0
Spring 2010	Geology 590	Sequence Stratigraphy	4	3/9
Fall 2009	Geology 101	Dynamic Earth	4	145/0
Sum 2009	Geology 107	Honors: Energy Resources Field Course	4	18/0
Spring 2009	Geology 470	Applied Geophysics	3	10/3
Spring 2009	Geology 675	Seminar in Geophysics	3	0/3
Fall 2008	Geology 101	Dynamic Earth	4	146/0
Sum 2008	Geology 471	TINGS (Near-Surface Geophysics Field Course)	3	7/6
Spring 2008	Geology 590	Sequence Stratigraphy	3	0/6
Fall 2007	Geology 101	Dynamic Earth	4	146/0
Fall 2006	Geology 101	Dynamic Earth	4	147/0
Sum 2006	Geology 471	TINGS (Near-Surface Geophysics Field Course)	3	4/7
Spring 2006	Geology 470	Applied Geophysics	3	3/5
Fall 2005	Geology 101	Dynamic Earth	4	148/0

*100-level course are introductory sequences, 400/500- level courses are upper-level undergraduate electives and/or lower level graduate courses, and 600-level courses and above are graduate courses.

Courses Taught (University at Buffalo, 1999-2005)

Semester	Course*	Title	Credit Hours	Enrmt. Ugr/Gr
Summer 2005	GLY 407/507	Geological Field Training (Director)	6/2	40/0
Spring 2005	GLY 419/519	Environmental Geophysics	3/3	15/5
Fall 2004	GLY 101	Global Environmental Science	4	240

	GLY 325	Geophysics/Tectonics	4	30
Summer 2004	GLY 407/507	Geological Field Training (Director)	6/2	38/2
Fall 2003	GLY 101	Global Environmental Science	4	205
	GLY 521	Hydrogeophysics	3	9
Summer 2003	GLY 407/507	Geological Field Training (Director)	6/2	37/1
Spring 2003	GLY 419/519	Environmental Geophysics	3/3	7/5
Fall 2002	GLY 101	Global Environmental Science	4	186
	GLY 325	Geophysics/Tectonics	4	23
Summer 2002	GLY 407/507	Geological Field Training (Director)	6/2	38/2
Spring 2002	GLY 419/519	Environmental Geophysics	3/3	10/5
Fall 2001	GLY 101	Global Environmental Science	4	170
	GLY 325	Geophysics/Tectonics	4	12
Summer 2001	GLY 407/507	Geological Field Training (Instructor)	6/2	40/0
Spring 2001	GLY 419/519	Environmental Geophysics	3/3	1/8
Fall 2000	GLY 101	Global Environmental Science	4	106
	GLY 325	Geophysics/Tectonics	4	16
Summer 2000	GLY 407/507	Geological Field Training (Instructor)	6/2	39/1
Spring 2000	GLY 326	Geophysics/Tectonics	4	31/1
Fall 1999	GLY 101	Global Environmental Science	4	74

*100-level course are introductory sequences, 300-level courses are upper-level undergraduate major sequence courses, 400-level courses are upper-level undergraduate electives, and 500-level courses are graduate courses. Courses indicated with two numbers (4**/5**) are cross-listed for both undergraduate and graduate students.

Other Teaching Activities

Formal

Semester	Supervising Institution	Course #	Course Name	Length/ Credits	Enrmt.
Sum 2009	UT	GEOL 101	Earth's Energy Resources (Introductory Honors Field Course in WY, CO, UT	3 wks 1 cr	18
Spr 2009	EEGS	N/A	Geophysics for Water Resources and Contaminants	1 da	18
Spr 2008	EEGS	N/A	Geophysics for Water Resources and Contaminants	1 da	15
Spr 2007	SUNY Geneseo	N/A	Near Surface Seismology	1 wk n/a	9
Spr 2006	TX A&M	N/A	Near Surface Seismology	1 wk n/a	14

Sum 2002	NW Missouri	N/A	NSF Research Experiences for Undergrads (REU) Program, Matanuska Glacier, Alaska	4wks	6
Sum 2001	Augustana College	N/A	NSF Research Experiences for Undergrads (REU) Program, Matanuska Glacier, Alaska	4 wks	5
Sum 2000	Augustana College	N/A	NSF Research Experiences for Undergrads (REU) Program, Matanuska Glacier, Alaska	4 wks	6
Sum 1999	Lehigh Univ.	EES 41	Introductory Geology in the Rocky Mountains	6.5 wks/ 6 cr	24
Sum 1998	Lehigh Univ	EES 41	Introductory Geology in the Rocky Mountains	6.5 wks/ 6 cr	28
Sum 1997	Lehigh Univ	EES 41	Introductory Geology in the Rocky Mountains	6.5 wks/ 6 cr	34
Sum 1996	Lehigh Univ	EES 41	Introductory Geology in the Rocky Mountains	6.5 wks/ 6 cr	26

Informal

1. Presented informal invited talk to the CMU AAPG Student Chapter on "Late Pleistocene to late Holocene wind regime in the White River Badlands, South Dakota USA," March 3rd, 2021.
2. Presented informal invited talk to the CMU AAPG Student Chapter on "Small Unmanned Aircraft System in the Geosciences," November 6th, 2019.
3. Gave 1-hour guest lecture/discussion to the CMU GEOL 205 (Computer Applications in Geology) course on "Small Unmanned Aircraft System in the Geosciences," October 30th 2019.
4. Led optional 4-day field trip for students attending the American Geophysical Union conference (5 students attending) through the Seirra Nevada Mountains and Yosemite Nat'l Park (California), Fall 2008.
5. Led optional 4-day field trip for students attending the Geological Society of America conference (7 students attending) through the Northern Rocky Mountains (Wyoming, Colorado), Fall 2006.
6. Led optional 5-day field trip for students in Geophysics/Tectonics class (generally 18-26 students attending) through the Taconic orogen (New York, Vermont, New Hampshire), Fall 1999, 2000, 2001, 2002, 2003, 2004.
7. Led optional weekend Niagara Falls field trip for students in introductory Global Environmental Science class (generally 18-35 students attending), Fall 1999, 2000, 2001.
8. Organized and participated in van trip to Boston, MA, for a national geology conference (GSA), and led informal field trips in the region (16 students attended) Fall 2001.

9. Organized and participated in van trip to Burlington, VT, for a regional geology conference (NE-GSA), and led informal field trips in the region (15 students attended) Fall 2000.
10. Organized and participated in van trip to Denver, CO, for a national geology conference (GSA), and led informal field trips in the Rocky Mountains (9 students attended: 7 graduate students from SUNY Buffalo; 2 from SUNY Fredonia), Fall 1999.

Supervised Students

Graduate Students, Major Advisor

Graduated Ph.D.

1. Megan Carr, Ph.D. 2013, Quantitative integration of multiple near-surface geophysical techniques for improved subsurface imaging: PhD dissertation, University of Tennessee
2. Prasanta Yeluru, Ph.D. 2013, Determining engineering properties of the upper 30 m of the Lunar subsurface using surface wave techniques: PhD dissertation, University of Tennessee
3. David Gaines, 2010, Advances in Seismic First-Arrival Tomography: PhD dissertation, University of Tennessee
4. Laura Gilcrist, 2009, Component analysis of very near surface seismic wave propagation and an examination of resonant frequencies in three soils: PhD dissertation, University at Buffalo.
5. Vaughan, Raymond, 2007, A method of three-dimensional gravity modeling to obtain subsurface density, illustrated by data from Western New York State: PhD dissertation, University at Buffalo.
6. Jordan, Thomas, 2003, Amplitude and phase variation with offset (APVO) analysis of ground penetrating radar data: PhD dissertation, University at Buffalo.

Graduated M.S.

1. Carolyn Tewsbury-Christle, M.S., 2013, Ground Penetrating Radar Investigations on the Relationship between Salinity in Fluid-filled Horizontal Sub-wavelength 'Thin-layer' Bedrock Fractures and Reflection Amplitudes
2. Matthew Edmunds, M.S., 2012, Assessing azimuthal seismic first-arrival tomography for estimating saprolite and bedrock fracture anisotropy
3. Rachel Storniolo, M.S., 2012, Determining vadose-zone hydraulic conductivity using time-lapse seismic first-arrival tomography
4. Caitlyn Williams, M.S., 2011, Improving geophysical data acquisition, processing, and analysis rates for multi-tool archaeology investigations: M.S. thesis, University of Tennessee.
5. Burns, K.E., 2008, Ground penetrating radar investigations on the relationship between horizontal sub-wavelength 'thin layer' bedrock fractures and reflection amplitudes: M.S. thesis, University of Tennessee.
6. Stokes, Philip J., 2007, Ground penetrating radar investigation of the Late Quaternary Hiscock site, Western New York State, USA: M.S., thesis, University at Buffalo.
7. Sturtevant, Kristin A., 2007, Integrating multiple geophysical techniques to analyze geologic controls of riparian meadow complexes, Central Great Basin, NV: M.S., thesis, University at Buffalo.
8. Ambrose, H.M., 2005, Improving archaeological geophysics surveys through improved visualization and multitool data integration, M.S. thesis, University at Buffalo.

9. Beyrle, Nicholas, 2005, Using polarized geound penetrating radar to improve subsurface imaging of bedrock fractures, M.S. thesis, University at Buffalo.
10. Talley, Jennifer, 2005, Imaging channelized flow in fractured rock using GPR: M.S., thesis, University at Buffalo.
11. Malinowski, Matthew, 2004, Effects of source energy and soil moisture on near-source, nonlinear deformation associated with near-surface seismic reflection sources: M.A. thesis, University at Buffalo.
12. Mayer, Calista M., 2004, Azimuthal resistivity analysis using a capacitively-coupled resistivity meter for the determination of fracture orientations: M.S. thesis, University at Buffalo.
13. Saunders, Mark D., 2003, Integrating multiple geophysical methods to determine depth to bedrock and subsurface stratigraphy in a buried glacial valley: Ischua Valley, Cattaraugus County, New York: M.S. thesis, University at Buffalo.
14. Evenick, Jonathan, 2002, An Investigation of the Subsurface Geology of Northeastern Chautauqua County, New York: M.S. thesis, University at Buffalo.

Graduate Students, Thesis/Dissertation Committee Member

Graduated

1. Alexandra Staub, MS 2023 (External Committee member, University of Kansas), Characterizing an incised valley fill in the Aberdeen Member, Upper Cretaceous Blackhawk Formation, Book Cliffs Utah, University of Kansas.
2. Kathleen Warrell, MS 2013, Detailed geological studies of paleoseismic features in the East Tennessee Seismic Zone: Evidence for large prehistoric earthquakes, University of Tennessee.
3. Craig Hardgrove, PhD 2010, Hyperspectral imaging of potential alluvial fans on Mars, University of Tennessee.
4. Jennifer Whisner, PhD 2010, Structural controls in the Southern Appalachians, University of Tennessee.
5. Peter Knappett, PhD 2010, Fate and transport of fecal contaminants in Bangladesh, University of Tennessee.
6. Boehm, David, MS 2003, A comparative study of seasonal bluff erosion at Lakeside Beach State Park, Orleans County, New York: University at Buffalo.
7. Budny, Lucas E., MS 2002, An Innovative Method for Ascertaining Tortuosities in Dry and Moist Porous Media and the Delineation of Tectonic Structures Using Soil Gas in Southern Seneca and Northern Schuyler Counties, New York: University at Buffalo.
8. Cruz, Cheri, MS 2005, Comparison of lineament analysis from remote sensing data with field data: University at Buffalo.
9. Fredrick, Kyle C., 2008, Determining effective data requirements for evaluating regional aquifers using the analytic element method: University at Buffalo.
10. Goudy, Cheryl, MS 2002, Wrinkle Ridges of Hesperia Planum, Mars: Implications for the Evolution of Ridges Plains: University at Buffalo.
11. Leao, Tiarone, PhD 2008, Effects of Water Content and Salinity on Soil Electrical Properties at 50 MHz: Structural and Textural Implications: University of Tennessee.

12. Nettles, Jeff, PhD 2007, Characterization of the least-melted chondrules in meteorites and impact on nebular sorting: PhD University of Tennessee.
13. Schuetz, James W., MS 2002, Numerical modeling of seasonal variability in ground-water flow near Mirror Lake, Grafton County, New Hampshire: University at Buffalo.
14. Spitzer-List, Tara M., PhD 2003, The use of surface temperatures and temperature profiles to identify and quantify ground-water discharge and recharge areas in wetlands: University at Buffalo.
15. Whisner, Jennifer, PhD 2010, Structural controls in the Southern Appalachians: University of Tennessee.

Graduate Students, Other Activities

1. Todd C. Witmer, Independent Graduate Research, 2001
2. Lucas Bundy, Independent Graduate Research, 2001
3. Paul Zaratin, Independent Graduate Research, 2000

Undergraduate Students, Honors Theses Published in CMU Library

1. Cole Beyer, *Determination of Mesoscopic Fracture Kinematics from Drone-based Remote Sensing in Unaweep Canyon, Western Colorado, USA*: CMU Geology Program Honors Thesis, Spring 2025.
2. Graceanne Hanson, 2025, *Estimates of high-flow stream flood discharge using drone (sUAS) photogrammetry and LiDAR imagery in an ephemeral stream, Mesa County, Colorado USA*: CMU Geology Program Honors Thesis, Spring 2025.
3. Andrew Schmidt, Dotsero *Volcano Magnetic Survey*, CMU Geology Program Honors Thesis, Spring 2023.
4. Devin Horvat, CMU Geology Major, Honors Thesis, Fall 2019-Spring 2022

Undergraduate Students, Supervised research and other activities

1. Cole Beyers, CMU Geology Major, Senior Honors Thesis & Independent Research, 2024-2025
2. Graceanne Hanson, CMU Geology Major, Senior Honors Thesis & Independent Research, 2024-2025
3. Zachary Shomers, CMU Geology Major, Independent Research, 2024-2025
4. KennaLee Worster, CMU Geology Major, Independent Research, 2023-2024
5. Anja Riedel, CMU Geology Major, Senior Thesis, Fall 2021-Spring 2023
6. Karlie Hadden, CMU Geology Major, Senior Thesis, Fall 2020-Spring 2022
7. Jarad Lavelle, CMU Geology Major, Structured Research, Fall 2019-Spring 2021
8. Sara Long, Univ of Tennessee Geology Major, Independent Research, Fall 2012-Spring 2013
9. Andrea Gregg, Univ of Tennessee Geology Major, Independent Research, Fall 2010-Spring 2012
10. Christian Hunkus, Univ of Tennessee Geology Major, Independent Research, Fall 2010-Spring 2012

11. Noah McDougall, Univ of Tennessee Geology Major, Independent Research, Spring 2010-Sprin 2011
12. Matthew Edmunds, Univ of Tennessee Geology Major, Independent Research, Fall 2009-2010
13. James A. Pratt, Univ of Tennessee Geology Major, Independent Research, Spring 2008-2010
14. Morgan Braxton-Sears, SUNY Buffalo Geology Major, Independent Research, Fall 2007- Spring 2009
15. Brittany Davis, SUNY Buffalo Geology Major, Senior Thesis Research, Spring 2006
16. Cheri Drechsel, SUNY Buffalo Geology Major, Independent Research, Spring 2000
17. Mike Dunlap, SUNY Buffalo Geology Major, Independent Research, Spring 2000
18. Chris Kibler, SUNY Buffalo Geology Major, Independent Research, Spring 2000, Fall 2000
19. Adiel Gavish, SUNY Buffalo Geology Major, Independent Research, 2002
20. Laura Gilchrist, SUNY Buffalo Geology Major, Senior Thesis Research, 2002-2003
21. Theresa Lawler, SUNY Buffalo Geology Major, Senior Thesis Research, 2001-2002
22. Calista McIntyre, SUNY Buffalo Geology Major, Senior Thesis Research, 1999-2002
23. Robert Piurek, SUNY Buffalo Geology Major, Independent Research, 2002-2003
24. James Pratt, SUNY Buffalo Geology Major, Independent Research, 2007-present
25. Kendra Pyke, SUNY Buffalo Geology Major, Senior Thesis Research, 1999-2002
26. Mark Saunders, SUNY Buffalo Geology Major, Independent Research, Spring 2000
27. Kristin Sturtevant, SUNY Buffalo Geology Major, Senior Thesis Research, 2002-2004
28. William Shaffer, SUNY Buffalo Geology Major, Independent Research, 2002
29. Jennifer Talley, SUNY Buffalo Geology Major, Independent Research, 2002
30. Laura Walzcak, SUNY Buffalo Geology Major, Independent Research, 2000-2001

Honors and Awards of Supervised Students

1. Graceanne Hanson, 1st Place undergraduate research oral presentations, Grand Junction Geological Society student presentations, May 7th, 2025.
2. KennaLee Rowley ($5000, KennaLee Rowley undergraduate student researcher), Hutchins Water Center Summer Student Research Grant, "Application of drone photogrammetry on alluvial fans in the Grand Valley of Colorado for detecting shallowly-buried channel features that may act as groundwater conduits," 5/19/2023-12/31/2023.
3. KennaLee Worster,1st Place Undergraduate Poster Competition, Hydrogeology Division, Geological Society of America national conference, Pittsburgh, PA, October 2023.
4. Noah McDougall (undergraduate research) was awarded the University of Tennessee Chancellors Honors Award for "Undergraduate Extraordinary Professional Promise" April 12, 2011.
5. *Best Paper Award,* Kristin Sturtevant for "Combining Multiple Seismic and Ground Penetrating Radar Techniques to Analyze Shallow Structure and Stratigraphy Associated With Riparian Meadow Complexes, Central Great Basin, Nevada USA" presented at the 2007 Symposium of Application in Geophysics for Environmental & Engineering Problems. Dallas, TX. April 13-18, 2007.
6. *Best Poster Presentation ($650),* Kristin Sturtevant for "Combining Multiple Seismic and

Ground Penetrating Radar Techniques to Analyze Shallow Structure and Stratigraphy Associated With Riparian Meadow Complexes, Central Great Basin, Nevada USA" presented at the 2006 Rocky Mountain Rendezvous of Geoscience Students and Employers, sponsored by AAPG and RMS-AAPG, sanctioned by SEG and GSA. Hosted by University of Wyoming Geology and Geophysics, Laramie. October 1-2, 2006.

7. *McLaughlin Undergraduate Award* ($650), Brittany Davis for undergraduate course work at the University of Tennessee.
8. *Reginald H. Pegrum Student Travel Grant ($350)*, Kristin Sturtevant for Geological Society of America National Meeting, M.S. Candidate.
9. *Kenneth N. Weaver Student Travel Grant ($250)*, Kristin Sturtevant for Geological Society of America Northeastern Section Meeting, M.S. Candidate.
10. *Reginald H. Pegrum Student Travel Grant ($350)*, Phil J. Stokes for Geological Society of America National Meeting, M.S. Candidate.
11. *Kenneth N. Weaver Student Travel Grant ($250)*, Phil J. Stokes for Geological Society of America Northeastern Section Meeting, M.S. Candidate.
12. *Mark Diamond Research Fund, University at Buffalo Graduate Student Association ($450),* Phil J. Stokes for "Geophysical imaging of a fossiliferous Pleistocene basin in Western New York" M.S. Candidate.
13. *Reginald H. Pegrum Student Travel Grant ($350)*, Kristin Sturtevant for Geological Society of America National Meeting, M.S. Candidate.
14. *Reginald H. Pegrum Student Travel Grant ($350)*, Phil J. Stokes for Geological Society of America National Meeting, M.S. Candidate.
15. *Kenneth N. Weaver Student Travel Grant ($250)*, Phil J. Stokes for Geological Society of America Northeastern Section Meeting, M.S. Candidate.
16. *Geological Society of America Research Grant ($1500)*, Phil J. Stokes for "Geophysical imaging of a fossiliferous Pleistocene basin in Western New York" M.S. Candidate.
17. *Geophysics Division Award* (Geological Society of America) for best student paper, Klaus Beyrle for "Using multiple polarization of ground penetrating radar to generate three-dimensional subsurface images of bedrock fractures" M.S. Candidate.
18. Best Student Presentation (*National Ground Water Association / U.S Environmental Protection Agency Fractured Rock Conference)*, Jenn Talley, for Talley J., Becker, M.W., Baker, G.S., Beyrle, N., 2004, Imaging channelized flow in bedrock fractures using ground penetrating radar: National Ground Water Association / U.S Environmental Protection Agency Fractured Rock Conference, Portland, Maine. M.S. candidate.
19. Sigma Xi Research Award, Calista McIntyre (Mayer) for "Azimuthal resistivity analysis using a capacitively-coupled resistivity meter for the determination of fracture orientations" M.S. candidate.