

VITA

Lawrence P. Rudd
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Education

Ph.D. in Geosciences, 12/17/2005
University of Arizona, Tucson, Arizona. GPA: 3.84/4.00
Dissertation: Using AVIRIS hyperspectral imagery to study the role of clay mineralogy in Colorado Plateau debris-flow initiation.

M.A. in Geography, 12/01/1980
University of Denver, Denver, Colorado. GPA: 3.66/4.00
Thesis: An analysis of the hillslope-floodplain boundary.

B.A. in Geography, 06/15/1975
Wittenberg University, Springfield, Ohio. GPA: 3.38/4.00

Teaching Experience

Classes taught: Graduate Level	GEOG 691 Climate Change Science for Educators: Water Resources GEOG 691 Climate Change Science for Educators: Disturbance Regimes
College Level	CI 487 Earth Science for K-12 Educators EDEL 433 Teaching Elementary School Mathematics EDEL 441 Standards-Based Curriculum-Elementary Science (Physics Emphasis) EDEL 445 Curriculum Development-Elementary Science (Earth Science) EDEL 443 Teaching Elementary School Science EDEL 443P Teaching Elementary School Science Practicum EDEL 483 Student Teacher Supervision EDSC 321 Secondary Pedagogy I EDSC 403 Teaching Methods Secondary-Biology EDSC 403 Teaching Methods Secondary-Physics EDSC 404 Secondary Pedagogy II EDSC 453 Teaching Secondary Mathematics EDSC 463 Teaching Secondary Science EDU 206 Classroom Learning Environment

and designed to improve teacher knowledge in the areas of both climate change content and pedagogy. Participating teachers are involved in field trips to sites of demonstrating important climate change science principals in southern Nevada and northern Arizona, as well as inquiry-based activities and lab work. Participants are required to apply workshop materials in their teaching during the 2011-2012 school year.

Instructor. Experimental Program to Stimulate Competitive Research (EPSCoR), Nevada Infrastructure for Climate Change Science, Education, and Outreach. Sept. 2008 to Sept. 2013. State of Nevada funding: \$15,000,000.00, Nevada State College portion of the state funding: \$400,396.00

Part of a statewide interdisciplinary program designed to stimulate transformative research, education, and outreach on the effects of regional climate change. My role in this project is to train southern Nevada middle school teachers in climate change topics and inquiry-based teaching methods by teaching the graduate-level class GEOG 691, Special Topics: Climate Change Science for Educators. This class is taught as a two-week summer institute and through the following fall semester. The class requires participating teachers to apply material from the summer institute in their classroom teaching.

Principal Investigator. Nevada Collaborative Teaching Improvement Program (NeCoTIP) grant titled "Invigorating High School and Middle School Earth Science through Inquiry and Student Research," Jan. 2010-Sept. 2011. Total funding: \$81,189.00.

The fourth and final iteration of this grant. The central goal remained providing secondary-level inservice science teachers' professional development on the topic of local geology. Most of the activities in the two-week workshop were field-based and designed to improve teacher knowledge in both geology content and pedagogy. Participating teachers were involved in field trips to sites of geological interest in southern Nevada and northern Arizona, as well as inquiry-based activities and lab work. Additional podcasts were developed for field sites visited in the summer of 2010.

Principal Investigator. Nevada Collaborative Teaching Improvement Program (NeCoTIP) grant titled "Invigorating High School and Middle School Earth Science through Inquiry and Student Research," Jan. 2009-Sept. 2010. Total funding: \$81,947.00.

The third version of this grant. The central goal remained providing secondary-level inservice science teachers' professional development on the topic of local geology. Most of the activities in the two-week workshop were field-based and designed to improve teacher knowledge in the areas of both geology content and pedagogy. Participating teachers were involved in field trips to sites of geological interest in southern Nevada and northern Arizona, as well as inquiry-based activities and lab work. Field sites and podcasts were revised for the two-week workshop.

Principal Investigator. Nevada Collaborative Teaching Improvement Program (NeCoTIP) grant titled "Invigorating High School and Middle School Earth Science through Inquiry and Student Research," Jan. 2008-Sept. 2009. Total funding: \$84,036.00.

The second version of this grant. The central goal remained providing secondary-level inservice science teachers' professional development on the topic of local geology. Most of the activities in the two-week workshop were field-based and designed to improve teacher knowledge in the areas of both geology content and pedagogy. Participating teachers were involved in field trips to sites of geological interest in southern Nevada and northern Arizona, as well as inquiry-based activities and lab work. Podcasting for two of the field sites and new lab experiences were major revisions incorporated into the 2008 two-week summer workshop.

Principal Investigator. Nevada Collaborative Teaching Improvement Program (NeCoTIP) grant titled "Invigorating High School and Middle School Earth Science through Inquiry and Student Research," Feb. 2007-Sept. 2008. Total funding: \$96,380.

The central goal of this grant was to provide secondary-level inservice science teachers professional development on the topic of local geology. Most of the activities in the two-week workshop were field-based and designed to improve teacher knowledge in the areas of both geology content and pedagogy. Participating teachers were involved in field trips to sites of geological interest in southern Nevada and northern Arizona, as well as inquiry-based activities and lab work. Participating teachers all engaged their students in field trips during the 2007-2008 school year as a direct result of their summer workshop experience.

Affiliate Researcher. Desert Research Institute, Las Vegas, Nevada.
November, 2006 to March, 2008.

As an Affiliate Researcher I was involved in working in the following roles: field observer and coordinator for the MESA program in Clark County, Nevada secondary schools, report writer for the Tule Springs Geoscience Education Project, and curriculum developer for the Red Rock Canyon Desert Learning Center.

Research Assistant. University of Arizona, Tucson, Arizona.
April, 2000 – May 2002.

Conducted research into the role of clay mineralogy in debris-flow initiation in arid areas. This research involved field work, data analysis, image processing, GIS work, lab work, and report writing. This research was funded by a NASA grant which I co-wrote entitled: Remote sensing for debris flooding hazard assessment in arid regions. Principal Investigator: Dr. Victor Baker. A team of researchers from the University of Arizona, Rice University, and the United States Geological Survey were involved in this project.

Graduate Teaching Assistant. Research Project in Science Education, University of Arizona.
January 2001 to May 2001.

Developed and implemented curriculum materials used to create a semester-long research project in an introductory, undergraduate science class. In this research project each student in the class acquired a rock. The rock was then identified and the origin of the elements making up the rock was traced backwards to the big bang. One goal of this research was to develop a project for non science-major undergraduates, which uses a familiar earth-object to help the students gain a better understanding of the origin of matter and the development of the universe.

Research Team Member. Mars surface process research, University of Arizona.
January 2000 to May 2000.

Conducted research into the processes involved in the formation of gigantic drainage features on the Martian surface. I produced several working hypothesis that could be used to explain the formation of extremely large northwest-trending channels on Mars between the Tharsis Montes upland and the northern plains.

Unfunded Grants

Co-Investigator. "Building a K-12 Climate Change Science Fair Support Network for Nevada." A proposal made in 2010 to NASA for \$463,043.00 in funding to run a three-year program aimed at improving K-12 student science fair submissions throughout Nevada.

Co-Principal Investigator. "Improving Secondary Science Instruction to Increase Student Achievement in Southern Nevada." A proposal made in 2009 to the National Science Foundation (NSF) for \$11,405,113.00 in funding to run a five-year program to create a Southern Nevada Science Education Partnership with the goal of increasing both the number of qualified science teachers in southern Nevada and increasing scientific literacy among participating Clark County School District Students.

Co-Investigator. "Using AVIRIS and MASTER data to assess the viability of HypSIIRI data for determinations of debris-flow hazard and surface material mapping." A proposal made in 2009 to NASA for \$106,416.00 in funding to run a one-year program aimed at assessing how well local debris-flow hazard can be judged based on mineral and lithologic maps created using data from the HypSIIRI sensor.

Co-Investigator. "Improving Nevada High School Climate Change Research." A proposal made in 2008 to NASA for \$388,707.00 in funding to run a three-year program aimed at teaching Nevada inservice secondary school teachers climate change science content and inquiry-based activities and tools.

Fellowships

Nevada NSF Experimental Program to Stimulate Competitive Research (EPSCoR) Community and State College Summer Fellowship for summer, 2012. In this position curriculum materials were created for K-12 students using climate data from the Nevada EPSCoR Data Portal. These curriculum materials are available at: <http://sensor.nevada.edu/NCCP/Education/Default.aspx>

Publications

Peer-reviewed

Webb, R.H., Griffiths, P.G., and **Rudd, L.P.**, 2008, Holocene debris flows on the Colorado Plateau: The influence of clay mineralogy and chemistry: *Geological Society of America, Bulletin*, v. 120, n. 7, p. 1010-1020.

Dohm, J.M., Anderson, R.C., Baker, V.R., Ferris, J.C., **Rudd, L.P.**, Hare, T.M., Rice, J.W. Jr., Casavant, R.R., Strom, R.G., Zimbleman, J.R., and Scott, D.H., 2001, Latent outflow activity for western Tharsis, Mars: Significant flood record exposed: *Journal of Geophysical Research*, vol. 106, no. E6, pages 12,301-12,314.

Dohm, J.M., Anderson, R.C., Baker, V.R., Ferris, J.C., Hare, T.M., Strom, R.G., **Rudd, L.P.**, Rice, J.W. Jr., Casavant, R.R., and Scott, D.H., 2000, System of gigantic valleys northwest of Tharsis, Mars: latent catastrophic flooding, northwest watershed, and implications for northern plains ocean: *Geophysical Research Letters*, vol. 27, no. 21, pages 3559-3562.

Not Peer-reviewed

Rudd, L.P., 2011, Podcasts Amplify Learning in the Field, *In the Trenches*, v. 1, n. 2, April, 2011. Access <http://nagt.org/nagt/publications/trenches/issues/apr11.html#third> for the article and podcasts.

Published Conference Presentations

Refereed

Rudd, L.P., Bonde, A., and Buck, P.E., 2012, Preparing Secondary School Teachers to Teach about Climate Change: The Professional Development Model Used in Southern Nevada as Part of Nevada NSF EPSCoR, The Fourth International Conference on Climate Change: Impacts and Responses, July 12 and 13, 2012, Seattle, Washington.

Rudd, L.P., Rowland, S.M. and Buck, P.E., 2011, Invigorating High School and Middle School Earth Science Through Inquiry and Student Research: a field-oriented geoscience workshop for secondary science teachers in southern Nevada, *Geological Society of America Abstracts with Programs*, Geological Society of America *Abstracts with Programs*, Vol. 43, No. 5, p. 522.

Rudd, L.P. and Rowland, S.M., 2008, Teaching Southern Nevada Geology: An Inquiry-Based Teacher Workshop on Local Geology, Geological Society of America *Abstracts with Programs*, October 5-9, 2008, Houston, Texas.

Rowland, S.M., Hopkins, J., Jalbert, D., Wright, V., Alvarez, J., and Rudd, L.P., 2008, Mammoth teeth in the earth science classroom: Developing skills in measuring, graphing, collecting data, and hypothesis testing, Geological Society of America *Abstracts with Programs*, Vol. 40, No. 1, p. 80.

Rudd, L.P. and Merényi, E., 2005, Assessing debris-flow potential by using AVIRIS imagery to map surface materials and stratigraphy in Cataract Canyon, Utah, *in* Green, R.O., ed., Proceedings of the Fourteenth Airborne Earth Science Workshop, May 24 to 27, 2005, Pasadena, CA.

Rudd, L.P. and Merényi, E., 2004, The use of AVIRIS imagery to assess clay mineralogy and debris-flow potential in Cataract Canyon, Utah, *in* Geological Society of America *Abstracts with Programs*, Vol. 36, No. 5, p. 385. Downloadable from the GSA website at http://gsa.confex.com/gsa/2004AM/finalprogram/abstract_79020.htm

Rudd, L.P. and Merényi, E., 2003, The use of AVIRIS imagery to assess clay mineralogy and debris-flow potential in Cataract Canyon, Utah: A preliminary report, *in* Green, R.O., ed., Proceedings of the Twelfth Airborne Earth Science Workshop, February 25 to 28, 2003, Pasadena, CA.

Professional Presentations

"Climate Change Science Activities and Resources For Secondary Teachers," Southern Nevada Regional Math and Science Conference, Las Vegas, Nevada, January 21, 2012.

"Using local field tips as an integral part of teaching and learning about climate change science in Nevada," 3rd Annual EPSCoR Western Tri-State Consortium Meeting, Santa Ana Pueblo, New Mexico, April 7, 2011.

"Climate Change Education in the Secondary Classroom," Southern Nevada Regional Math and Science Conference, Las Vegas, Nevada, January 22, 2011.

"Activities for dynamic science teaching," Ninth Annual National Substitute Teacher Alliance Conference, Henderson, Nevada, May 22, 2010.

"The application of imaging spectroscopy to debris flow hazard assessment on the Colorado Plateau; developing a spectral stratigraphy of Cataract Canyon, Utah," **Invited talk** - Geological Society of Nevada Monthly Meeting, Las Vegas, Nevada, February 25, 2010.

"Clark County School District Involvement in the NSF EPSCoR Program, Education Component," poster presented with Aubrey M. Shirk and Dr. Paul Buck; 2010 NSF EPSCoR Climate Change Conference, Las Vegas, Nevada, February 2, 2010.

"Middle School Science Teacher Climate Change Education Program," with Dr. Paul Buck (presenter) and Jacque Ewing-Taylor; 2010 NSF EPSCoR Climate Change Conference, Las Vegas, Nevada, February 2, 2010.

"Teaching about climate change," Southern Nevada Regional Math and Science Conference, Las Vegas, Nevada, January 23, 2010.

"Integrating math and science lessons for elementary school teachers," School Science and Mathematics Association Yearly Conference, Reno, Nevada, October 24, 2009.

"Geologic Inquiries in Southern Nevada," Southern Nevada Regional Math and Science Conference, Las Vegas, Nevada, January 24, 2009.

"Teaching Southern Nevada Geology," Nevada State Science Teacher's Association 2008 Conference, Las Vegas, Nevada, February 9, 2008.

"Using AVIRIS hyperspectral imagery to study the role of clay mineralogy in Colorado Plateau debris-flow initiation" **Invited talk** – University of Nevada at Las Vegas Geoscience Department Fall 2007 Symposium, Las Vegas, Nevada, September 19, 2007.

"Developing Professional Development Schools in the First State College of Nevada," 2007 Professional Development Schools National Conference, Las Vegas, Nevada, with Drs. Francine Mayfield, Lori Navarrete, Kevin Graziano, Rho Hudson, Ms. Elizabeth Duncombe and Ms. Clairin DeMartini, March 31, 2007.

"Teaching Tucson geology," The University of Arizona's Science Education Center's Thirteenth Annual Southern Arizona Science and Mathematics Conference, Tucson, Arizona, April 5, 2003.

Certifications

State of Arizona Community College Regular Teaching Certificate - lifetime.

Teaching fields of geography and earth science.
State of Arizona Standard Secondary Teaching Certificate (1998-2009)
Approved in the areas of geography and science.
Provisional ESL Endorsement (1996 to 1999).

Leadership Experience

Chair, Nevada State College School of Education Educational Technology Professor search committee
Faculty Senate Chair, Nevada State College
Faculty Senate Vice-Chair, Nevada State College
Teaching Teams Program Member, University of Arizona
Science Department Chairman, Pinon High School
Curriculum Integration Co-coordinator, Pinon High School
Cooperating Teacher in the Extended Teacher Preparation Program at the University of Southern Maine
School Improvement Team Co-Chair, Deering High School
Liaison Committee Chairman, Deering High School
Boys Tennis Team Coach, Deering High School

Service

Professional

Moderator and Session Organizer, Session F3-Climate Change Education, 3rd Annual EPSCoR Western
Tri-State Consortium Meeting, Santa Ana Pueblo, New Mexico, April 7, 2011
Reviewer, National Science Foundation Research in Disabilities Education Proposal (Spring 2010)
Member, Southern Nevada Science Teachers Association (2006 to present)
Member, National Association of Geoscience Teachers (2000 to present)
Member, Geological Society of America (2000 to present)
Member, American Geophysical Union (2002 to present)
Member, National Earth Science Teachers Association (2011 to present)

College

Chair, Faculty Senate (January, 2007 to May, 2008)
Vice-Chair, Faculty Senate (September, 2006 to December, 2006)
Member, Executive Committee (January 2007 to May, 2008)
Member, Provost Council (January 2007 to May, 2008)
Member, Provost Search Committee (2007)
Member, Nevada State College Presidential Review Committee (2008)
Member, NSC Science, Technology, Engineering and Mathematics (STEM) Task Force (2009 to present)
Member, College-wide Strategic Planning Committee (2008 to 2009)
Chair, Building a Culture of Community Sub-committee of the Strategic Planning Committee (2009)
Member, Commencement Committee (2011)
Member, Part-time Technology Trainer Search Committee (2008)
Member, Institutional Review Board (2007 to present)
Member, Community Based Learning Committee (2006 to 2008)
Member, Grade Appeal and Academic Policies Committee (2009 to present)
Member, Faculty Senate Grievance Committee 2008 and 2009)

Member, Faculty Senate Strategic Planning Committee (2009 to 2011)
Member, Faculty Senate Promotion and Tenure Committee (2010 to present)
Member, Faculty Senate Library Committee (2010 to 2011)
Member, Retention Committee – Team IV, Accessibility (2009)
Presenter, Take Your Child to Work Day (2009 and 2010)
Presenter, Faculty Senate representative at the NSC Staff Professional Development Day, 2/9/07
Panel Member, Community Based Learning Committee representative, NSC Faculty Orientation, 1/19/07

School of Education

Chair, School of Education Educational Technology Professor Search Committee (2012)
Member, School of Education Dean Search Committee (2011 to 2012)
Faculty Advisor, NASA Pre-Service Teachers Conference (2007 and 2008)
Faculty Advisor, School of Education Pre-Service Teachers (2006 to present)
Chair, School of Education STEM Committee (2008 to present)
Member, Field Experience Revision Committee (2008 to 2010)
Member, School of Education Curriculum Committee (2008 to present)
Member, School of Education Strategic Planning Committee (2007 to 2008)
Member, School of Education Standards of Academe-Scholarship Committee (2008-2009)
Member, Secondary Education Restructuring Committee (2008 to present)
Member, EDU 250 Revision Committee (2009 to 2010)
Presenter, faculty representative presentations in STEP-UP classes (2008 to 2011)
Presenter, Resume Writing Workshop at the Eldorado High School Talent Discovery and AVID Career Day, (2008)
Presenter, School of Education Faculty Professional Development session – Creating Podcasts (2010)
Presenter, School of Education Faculty Professional Development session – STEM Initiatives in Nevada (2009)
Session host, Student Teacher Portfolio Night (2009, 2010, 2011)
Observer, Observed inservice science middle school and high school science teachers in their classrooms as part of the NeCoTIP and EPSCoR-funded programs (2006 to present)
Representative, NSC student orientations (2006 to present)
Representative, NSC recruitment fairs (2006 to present)

Community

Member, Clark County School District Science Sequence Revision Focus Group (2011)
Member, NV/PIE Inspiration Awards-Site Visitation Committee, 2010-11 School Year (School visits – March 1, 2011)
Volunteer, National Public Lands Day – Great Unconformity Cleanup (September 25, 2010)
Member, Clark County School District Earth Science Textbook Review Committee (spring 2007)
Member, Clark County School District Math-Science Partnership Committee (2007 to 2008)
Presenter, Clark County School District Crossroads program – Resume Writing (2008)
Presenter, Foothill High School earth science classes – Geology of the Lake Mead area (2009)
Volunteer, Henderson Festival of Cultures (2007 and 2008)
Volunteer, Tohono O'odham Nation Willa Festival (yearly from 1999 to 2005).

State

Member, Regents Awards Selection Committee (2012)

Member, State of Nevada GreenPrint Committee (2009 to 2011)
Nevada State Science Olympiad Judge, Road Scholar Event (2008) and Fossils Event (2011)
Member, Regents Awards Selection Committee (2008)

Honors and Awards

Nominee, Nevada State College 2011 iTeach Innovation Award
Nominee, Nevada State College 2010 iTeach Assessment Award
Nominee, Nevada State College 2009 iTeach Economic Development Award
University of Arizona Planetary Sciences Graduate Teaching Excellence Award for Fall Semester, 2000.
Wittenberg Chapter of Gamma Theta Upsilon (national geography honor society) Member, 1974-1975.

Graduate Coursework

Education

Seminar in Environmental Education
Education Internship – Science Education
Computer Programming – LOGO
Physics and Physics Teaching
Teaching Physics Workshop
ESL – Classroom Teaching Practices
Foundations and Assessment of ESL/BLE Populations
Cultural Component for ESL/BLE
Instructional Techniques and Methods of ESL/BLE
Overview of the Community College
Grammar

Geology/Geoscience

Geomorphology (two classes)
Geomorphology Seminar – Climatic Geomorphology
Sedimentation and Stratigraphy
Late Quaternary Geology
Quaternary Geochronology
Glacial and Quaternary Geology
Colloquium
Fluvial Geomorphology
Geology of the Solar System
Independent Study - Geologic Hazards
Applied Multispectral Imagery
Remote Sensing of Planet Earth
Independent Study - Surface Processes on Mars
Soil Geochemistry
Research - Science Education
Dissertation Research

Geography/GIS

Independent Study - Physical Geography Field Methods
Seminar in the History and Philosophy of Geographic Thought
Geography Research Methodology
Advanced Geographic Statistics
Land Use and Development
Independent Study - Thesis Identification
Environmental Perception
Independent Research - Thesis
National Environmental Policy Act
Remote Sensing
Independent Study - GIS
Geographic Information Systems
Advanced Geographic Information Systems
Cartographic Modeling

Work Experience

Assistant Professor of Education, from 8/2006 to present

Nevada State College, 1125 Nevada State Drive, Henderson, NV 89002
Phone 702-992-2521, FAX 702-992-2515

Responsible for teaching classes in the School of Education. Additional responsibilities include work on committees, grant proposals, work on existing grants, and development of the secondary and elementary level science education programs for preservice teachers.

Instructor, part-time from 8/2000 to present.

The University of Arizona, Office of Continuing Education and Academic Outreach, Independent Study through Correspondence, PO Box 210158, Tucson, AZ 85721
Phone: 520-626-4222, FAX: 520-621-3269.

Responsible for teaching a college class and high school classes through the Correspondence Division of the University of Arizona's Extended University. I currently teach Geosciences 4210, Environmental Geology, as a college-level correspondence class. I also teach the following high school science classes via correspondence: Physics I, Physics II, Astronomy I, Dinosaurs, Natural Disasters, and Oceanography.

AVID Tutor, from 3/2008 to 5/2008

Clark County School System, 2832 E. Flamingo Rd., Las Vegas, NV 89121
Phone 702-799-5011, FAX 702-799-1141

Responsible for tutoring high school students enrolled in the AVID program at Eldorado High School in science and mathematics.

Affiliate Researcher, from 11/2006 to 3/2008

Desert Research Institute, 755 E. Flamingo Road, Las Vegas, NV 89119
Phone 702-862-5400

Responsible for work on the MESA program for Clark County secondary schools, the Tule Springs Geoscience Education Project, and curriculum development for the Red Rock Canyon Desert Learning Center.

Science Teacher, from 8/2000 (part-time from fall 2000 to spring 2002) to 6/2006
St. Gregory College Preparatory School, 3231 N. Craycroft Rd., Tucson, AZ, 85712
Phone: 520-327-6395, FAX 520-327-8276.

Responsible for teaching physics and geology at the high school level. Additional responsibilities: Honor Committee member (2003 to present), Astronomy Club advisor (2004 to present), and Mission Statement Committee member (2005 to present).

Research Assistant, from 4/2000 to 5/2002.

Department of Hydrology and Water Resources, University of Arizona 85721
Phone: 520-621-5082, FAX: 520-621-1422.

Responsible for conducting research into the role of clay mineralogy in debris-flow initiation in arid areas. This research involved fieldwork, data analysis, image processing, GIS work, lab work, and report writing. This project was funded by NASA and involved a team of researchers from both the University of Arizona and the United States Geological Survey.

Graduate teaching Assistant, from 8/98 to 5/2002.

Geosciences Department, University of Arizona, Tucson, Arizona 85721
Phone: 520-621-6024, FAX: 520-621-2672. And
Planetary Science Department, University of Arizona, Tucson, Arizona 85721
Phone: 520-621-6963, FAX: 520-621-4933.

Responsible for teaching lab sections of Physical Geology and assisting in the lectures for: Physical Science: A geologic perspective, The Universe and Humanity: Origin and Destiny, and Planet Earth: Evolution of a Habitable World. All classes were introductory-level undergraduate science classes.

Science Teacher, from 8/96 to 6/98.

Pinon Unified School District #4, P.O. Box 839, Pinon, Arizona 86510.
Phone: 520-725-3484, FAX 520-725-3278.

Responsible for teaching physics, geology, and earth science at Pinon High School. Pinon is located approximately in the middle of the Navajo Nation. Nearly all of the students in my classes spoke English as their second language. Additional responsibilities: Science Department Chairman (1996-1998), Curriculum Integration Co-coordinator (1996-1997).

Science Teacher, from 9/84 to 6/96.

Portland Public Schools, 331 Veranda Street, Portland, Maine 04102.
Phone: 207-874-8260, FAX 207-874-8153.

Responsible for teaching physics and earth science to students at Deering High School. Additional responsibilities: Liaison Committee Chair (1991 - 1996), Student Teacher Supervisor (1995-1996, 1991 - 1992), Boys Tennis Team Coach (1985-1994), School Improvement Team Co-chair (1992-1993), School Improvement Team member (1991 - 1993), Student Study Center Tutor (1987-1988), Ninth Grade House Plan Member (1984-1987).

Physics Teacher, part-time from 9/91 to 4/96.

Portland Adult Education, 57 Douglass Street, Portland, Maine 04102.
Phone: 207-874-8155, FAX: 207-874-8154.

Responsible for teaching a college preparatory, lab-oriented physics class to adults. Each one-semester class covered approximately the same amount of material taught in a year-long high school physics class.

Instructor in General Engineering, from 9/82 to 12/82.

School of Engineering Technology, 5725 East Annex, Room 221, University of Maine, Orono, Maine 04469. Phone: 207-581-2340, FAX: 207-581-2113. Responsible for teaching drafting and cartography to four sections of a course titled Cartographics. I taught this course for one semester, replacing an instructor who was on sabbatical leave.

Instructor of Environmental Science, part-time from 9/81 to 5/82.

Nasson College, Springvale, Maine 04083 (Nasson College closed in 1983).

Responsible for teaching a course titled Introduction to Environmental Science and a course in cartography during the 1981-1982 academic year.

Draftsman-Technician, from 11/80 to 3/81.

Woodard and Curran, Inc., 41 Hutchins Drive, Portland, Maine 04102 Phone: 207-774-2112.

Responsible for civil engineering drafting, examination of drainage characteristics for septic system analysis and completion of permits.

Geologic Field Assistant, from 6/79 to 12/79, 6/78 to 12/78, and 6/77 to 12/77.

Conservation Division, United States Geologic Survey, Box 25046, M.S. 420, Denver Federal Center, Denver, Colorado 80225.

Phone: 303-234-4435.

During three six-month appointments I was responsible for geologic field mapping, compilation of land ownership maps, compilation and drafting of geologic maps, correlation of stratigraphic sections, compilation and drafting of stratigraphic sections for publication, analysis of electric logs from coal test drill holes, and mud logging of coal test drill holes.

Hydrologic Field Assistant, from 6/76 to 9/76.

Water Resources Division, United States Geological Survey, Box 25046, M.S. 420, Denver Federal Center, Denver, Colorado 80225.

Phone: 303-234-4624.

Responsible for setting up rainfall simulation equipment, taking water samples and flume readings, soil sampling and laboratory analysis of soil samples, and field checking of drainage patterns on air photos.

Graduate Teaching Assistant, from 9/75 to 6/76, 9/76 to 6/77, and 3/80 to 5/80.

Geography Department, University of Denver, Denver, CO 80210

Phone: 303-753-2513.

Responsible for teaching the laboratory sections and assisting in the lectures of the following courses: Physical Geology, The Hydrosphere, The Atmosphere, Natural Regions of the United States, and Cartography.