# Bethany D. Rinard Hinga, Ph.D.

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## Education

Ph.D. – Geological Sciences (Geophysics), 2004. Southern Methodist University, Dallas, Texas.
Dissertation: *Structure of Kilauea's Southwest Rift and Western South Flank Defined by Relocated Earthquakes*.

M.S. - Geology, 1995. Baylor University, Waco, Texas.
Thesis: *A Geophysical Study of the Ouachita Trend, Central Texas*.

B.S. - Geology, 1993. Baylor University, Waco, Texas.
Thesis: *Geology and Geochemistry of the Los Mogotes Volcano, San Juan Mountains, Colorado*.

## Employment History

***January 2013 to present: Director of Assessment, University of Nebraska at Kearney***

***January 2013 to present: Adjunct Instructor, Hastings College***

***November 2012 to present: [Volunteer] Assistant to the Director of Development, Hastings Public Schools Foundation***
Organization of records; experience with eTapestry tracking software for fundraising organizations.

***July 2012 to present: Author, ABC-CLIO Publishers***
Writing one-volume encyclopedia, scheduled finish date Fall 2013
Title: ***Ring of Fire: An Encyclopedia of the Pacific Rim's Earthquakes, Tsunamis, and Volcanoes***

***January 2010 to June 2012*: Associate Professor of Geosciences and Department Head**
**Department of Chemistry, Geosciences, and Environmental Science**
**Tarleton State University (member of the Texas A&M System), Stephenville, Texas**
*September 2008 to December 2009:* Associate Professor of Geosciences, Tarleton State University
*September 2001 to August 2008:* Assistant Professor of Geosciences, Tarleton State University
*January 1996 to August 2001:* Instructor of Geosciences, Tarleton State University

Administrative activities
*Transferrable Professional Skills*
- Excellent interpersonal skills.
- Demonstrated history of collaborative, inclusive, consensus-building leadership style.
- Cultivate and maintain close communication channels with students, colleagues, and administrators.
- Able to communicate effectively verbally and in writing with many audiences.
- Demonstrated history of bringing diverse groups together to accomplish major goals.
- Practiced at writing reports to satisfy university, state, and accrediting body requirements.
- Worked to increase student recruiting and retention in the department using best practices recommended by higher education consultants Noel-Levitz. In my 2.5 years as department head, the number of both Chemistry majors and Geoscience majors doubled and graduation rates increased.
- Comfortable generating and interpreting numerical data to inform decisions.
- Comfortable making important decisions in a timely and rational manner.

*Supervisory Responsibilities*
- Supervised 3 geology/environmental science faculty, 9 chemistry faculty (one off-site), two staff members (administrative assistant and chemistry stockroom supervisor), and one student office worker.
- Built a diverse department faculty. Hires during my tenure as department head were two PhD level chemists, both minorities, one female. Of 13 faculty (including myself), 4 were female, 5 were minorities.
- Hired adjunct faculty and student assistants as needed.
- Evaluated all faculty and staff on annual basis; used as basis for merit raises.
- Outstanding performance review in department head position, June 2010, 2011, and 2012.

*Assessment and Accreditation*

- Served as College of Science and Technology department head representative on university-level Academic Assessment Committee
    - Annual review of administrative assessment plans, data, and reports for all budgetary units in the College of Science and Technology.
    - Annual review of one other college's administrative assessment plans and reports for all of its budgetary units.
    - Annual review of dean's assessment plan and reports.
- Major overhaul of assessment practices to bring university into compliance with best practices for academic assessment (proper language to specifically define measurable objectives, appropriate measures for these objectives, triangulation of data).
- Proficient user of **Weave Online** software for assessment reporting.
- Summarized and reported my department's academic and administrative assessment activities.
    - Collected agreed-upon assessment data from faculty on semi-annual basis.
    - Wrote annual report of academic programs' strengths, weaknesses, and areas of improvement based on assessment data provided by faculty.
- Familiar with regional accrediting body requirements in the areas of faculty credentials and assessment reporting.
- Attended Texas A&M Assessment Conference, February 2010.

*Collaborations*

- First department head to facilitate meetings of academic department heads across the university to address common interests and concerns. Communicate recommendations and requests of department heads to provost.
- Began first serious discussions to create interdisciplinary BS degree in Forensics with Chemistry, Medical Laboratory Sciences, and Criminal Justice departments.
- First academic department to incorporate a research scientist from the Texas Institute for Applied Environmental Research into a teaching role (Environmental Modeling), 2011. Researcher taught a course that was conspicuously absent from the degree program. Students learned important, marketable skills and researcher was able to identify students he could employ to help him with his funded grant and contract projects.
- Began discussions with Engineering Technology department about proposing a new joint degree in Chemical Engineering Technology.
- Worked with stakeholders across the university to develop a vision for a new School of Environmental Studies. Formal proposal submitted to president in May 2012, then forwarded to Texas A&M System funding lobbyists in Washington DC to seek a special appropriation for new facilities and startup funds for the School.
- Facilitated planning meetings of vital constituents of the existing interdisciplinary Environmental Sciences programs (BS and MS level). Included deans and department heads across four colleges (Agriculture and Environmental Science, Graduate Studies, Liberal and Fine Arts, and Science and Technology), as well as the director and two assistant directors of the Texas Institute for Applied Environmental Research (TIAER).
- Developed a strategic partnership between ExxonMobil [Houston] Geotechnical Skill Area personnel/employers and Tarleton State University. First campus visit for ExxonMobil partners was mid-February 2012. Resulted in ExxonMobil hiring 2 new Tarleton Geology graduates for lucrative permanent positions in summer 2012.
- Worked with Texas Engineering Experiment Station (TEES) at Texas A&M University to:
    - Develop NSF proposal for S-STEM grants to attract students in numerous STEM fields to Tarleton.
    - Plan workshop for faculty and administrators of community colleges (March 2012) in anticipation of collaborative S-STEM proposals to NSF. Vision is to provide scholarships to students at regional community colleges for first two years, provide continued funding at our university for final two years, and reverse-articulate courses so students graduate from both institutions.
- Faculty mentor in Renaissance Scholars program to cross-train talented future educators in multiple disciplines to fill needs of small, rural school districts, 2012.
- Participated as academic department head representative in monthly luncheons between Divisions of Academic Affairs and Student Life.

*Fiscal Management*

- Maintained fiscal control of the department's multiple accounts (each with various state-mandated spending restrictions), totaling nearly $200,000, exclusive of faculty and staff salaries.
- Served on committee to identify $500,000 in cuts to budget for College of Science and Technology, Spring 2011. Cuts had minimal impact on the instructional mission of the College, and no positions were lost.
- Navigated a mandated 5% cut in departmental accounts without sacrificing quality of instruction, employee positions, faculty development activities, or faculty and student research activities.

- Despite budget cuts, successfully lobbied provost for additional faculty line in Chemistry (Fall 2011) due to unprecedented enrollment growth. Worked with Dean and Provost to find funding for the position.
- Increased course fees to more appropriate levels in chemistry courses to pay for most chemicals and glassware purchases; and in geosciences courses to pay for field trips and replacement of older/broken field instruments.
- Re-negotiated publishing contract and royalties for locally written lab manuals, providing funding stream for faculty and student travel while reducing workload in department office.

*Relevant training*

- Training in press communications from the university's media relations director, June 2010.
- Attended "Chairing the Academic Department" training by the American Council for Education in November, 2009.
- Attended annual meetings of Texas Women in Higher Education (American Council for Education conferences for female leaders in higher education), 2010, 2011, and 2012.
- Introduction to speaking with members of state legislature, Texas Women in Higher Education Annual Conference in Austin, 2011.
- "Insight Into Philanthropy" training by Advancement Resources, 2011.

Teaching Activities

- Taught lecture and laboratory courses toward BS degree in Geosciences.
- Superior teaching evaluations from students, and excellent performance reviews by previous department heads.
- Developed new course in Natural Disasters for the university's General Education curriculum.
- Transformed existing Subsurface Methods (well log interpretation) course into introductory exploration geophysics class.
- Used expertise in Hawaiian volcanism to develop and teach 10-day field course "Volcano Studies in Hawaii" on ten different occasions between 1996 and 2011.

Research/Scholarly Activities

- Contracted with ABC-CLIO publishing company to write a book. Scheduled date of completion, September 2013.
- Wrote lab manual for Natural Disasters course, also adopted by Texas A&M-Commerce for 2011-12 academic year. Still in use at Tarleton State University.
- In discussions with publisher Fountainhead Press to market the Natural Disasters lab manual nation-wide, and possibly produce an online version to give universities an option for an online lab science course.
- Archaeological geophysics research projects with 5 students, Fort Hood [Army Base], Killeen, Texas. 2010-11. Collaborated with Fort Hood Office of Cultural Resources, Texas Historical Commission, and Collier Consulting in Stephenville, Texas.
    - Project 1 – demarcation of unmarked historical graves using ground penetrating radar and electrical resistivity.
    - Project 2 – survey of site known to contain at least two prehistoric burned rock middens using ground penetrating radar and magnetic gradiometer.
- Collaborated with Soil Sciences students and faculty to contribute geology and parent rock information in project to create a detailed soil map of Capulin Volcano National Monument, 2007.
- Supervised student senior Honors project, 2007-08. Project: Geologic map of the Strawn, Texas quadrangle.
- Used *hypoDD* software for improved earthquake location on the Southwest Rift Zone of Kilauea during dissertation research conducted at the Hawaiian Volcano Observatory, summers 2000-2003.

Service-related Activities

- Department head representative on University Academic Assessment Committee, 2010-2012.
- Member of University Academic Council, 2010-2012.
- Member of Department Head Search Committee, Department of Agricultural and Environmental Management, 2012.
- Guest speaker at Texas Biosciences Institute Middle College, funded by NSF STEP grant at Temple College (in collaboration with Tarleton State University), February 2012.
- Member of Provost Search Committee, 2010-11.
- Academic advisor for freshman and sophomore geoscience majors and incoming transfer students, 2002-2012.
- Co-sponsor of Tarleton Geological Society, student geology club, 1996-2012.
- Served on 12-member Geosciences Faculty Advisory Board for Pearson publishers during development of Mastering Geology software for use in freshman geology and geography courses, 2010.
- Chair of university-level Speaker Symposium [Lecture Series] Committee, 2007-2010. Annual budget: $10,000.
- Department representative on College of Science and Technology Curriculum Committee, 2003-07

- College of Science and Technology representative on University Curriculum Committee, 2005-07.
- Member of Editorial Committee for University Curriculum Committee, 2006-07.
- Member of the university's Center for Diversity Initiatives advisory board, 2005-2009.
- Reviewer for National Science Foundation Course, Curriculum, and Laboratory Improvement (CCLI) proposals, Earth Sciences directorate, July 2004.
- Involvement in K-12 outreach programs
  - Multiple duties at Tarleton Regional Science Olympiad Competitions for junior and senior high students: 2003-09
  - "Expanding Your Horizons" program for girls, exposure to women in science and engineering careers: 2003-07
  - "Earth and Sky Day" for area 4th graders, 2002-04
  - Science and History TAKS Review Day speaker to the 8th grade at Henderson Junior High, Stephenville, TX, 2009.
  - Annual speaker for Brownwood, Texas public library's summer reading program, 2004-2010.
  - Numerous presentations and Badge Day classes for Boy and Girl Scouts, 2002-2009.
- Secured donation of ~26,000 volumes from Baylor University library to Tarleton State University library, 1998.
- Institutional representative for Texas Women in Higher Education, 2011-2012.

*August 1993-May 1995*: Graduate Teaching Assistant, Baylor University, Waco, Texas.
- Taught labs for undergraduate and graduate courses
  - Earthquakes and Volcanoes (freshman level undergraduate)
  - Igneous Petrology (junior level undergraduate)
  - Exploration Seismology (graduate)
  - Gravity and Magnetics (graduate)
- Served as faculty-appointed president of Baylor Geological Society for 2 years (1992-1994).
- Organized buses, meals, and workers for 4 freshman field trips (involving 500 freshmen) per semester.

*May 1993-August 1993*: Geologist, GS-5, United States Geological Survey, Hawaiian Volcano Observatory.
- Internship obtained through National Association of Geology Teachers cooperative program.
- Assigned to Geology Group at the volcano observatory.
- Collected lava samples and field data, and performed helicopter and ground-based field reconnaissance on active flow field and on active vent Puu Oo.
- Performed laboratory research for bubble nucleation study of tephra from Kilauea's effusive eruptions.

**Current Professional Memberships**

American Geophysical Union
Geological Society of America
International Association for Volcanology and Chemistry of the Earth's Interior (IAVCEI)

**Courses Taught, 1996-2012**

*****Indicates courses taught on a regular rotating basis.

Earthquakes
Environmental Field Techniques
Environmental Science
Historical Geology*****
University Honors Seminar
Introduction to Field Geology
Introduction to GIS for Scientists*****
Natural Disasters*****
Physical Geology*****
Physical Science Survey (teacher prep course)
Structural Geology*****
Subsurface Methods***** (Introductory Geophysics)
Volcanoes
Volcano Studies in Hawaii***** ("study away" course)

**Software packages used**

Weave Online (assessment)
Banner (student information system)
DegreeWorks (degree audit system)
Digital Measures (faculty and staff self-evaluation software and limited CV builder)
Tarleton Connection (Human Resources software for job posting and faculty/staff evaluation)
Microsoft Office suite

## Honors and Awards

- Grant to offset cost of Volcano Studies in Hawaii course for students; Tarleton State University's REAL program, promoting valuable out-of-classroom experiences for students, $1500. 2011.
- Research group (comprised of 5 undergraduate students and one post-baccalaureate student) awarded $2500 for archaeological geophysics research at Fort Hood, TX. Inaugural grant of the new Office of Student Research at Tarleton State University. 2010.
- Tarleton State University Organized Research Grant, 2006-07. For a project in collaboration with soil scientist David Weindorf to produce a high-resolution GIS-format soil and bedrock map of Capulin Volcano National Monument (New Mexico). $14,385. Field work completed in May 2007; lab work in summer 2007.
- Tarleton State University Organized Research Grant, 2005-06, for work on Hawaiian seismicity. $9705.
- Geological Society of America Graduate Student Research Grants: 2001 ($2100) and 2002 ($1600).
- Selected as one of 70 American scientists to participate in Symposium on the Icelandic Plume and Crust held in Keflavik, Iceland 9/2001. Sponsored in full by the National Science Foundation and RIDGE.
- Jack Kleinman Internship for Volcano Research, awarded by the U.S. Geological Survey Cascades Volcano Observatory, 2001. $500
- Karen Kellogg Shaw Memorial Scholarship, awarded by Dallas Geophysical Society, 2000. $1750
- Outstanding Graduate for the Baylor Geology Department, 1993.
- Charter member of Baylor chapter of Sigma Gamma Epsilon, National Earth Science Honor Society, 1993.

## Selected Publications and presentations


Cronin, V., C. Davidson, J. Harris, J. Lewis, B. Rinard, and C. Shaw, 2004, Integrating Geophysics into Structural Geology Courses: *in* Geological Society of America Abstracts with Programs, v. 36, n.5.

Gleason, P., J.L. Smith, C. Goffinet, N. White, and B. Rinard, 2011, A Comparison of Soil Resistivity Measurements with Ground Penetrating Radar Measurements for Detecting Graves in a Lime Marl Environment, Symposium on the Application of Geophysics to Engineering and Environmental Problems (SAGEEP), Charleston, SC.

Haggard, B.J., S. Johnson, A. McWhirt, J. McPherson, B. Rinard, 2007, High Resolution Soil Survey of Capulin Volcano National Monument, student poster presentation at 5th Annual Texas A&M University System Pathways Student Research Symposium.

Parker, D.F., A. Ghosh, C.W. Price, B.D. Rinard, R.L. Cullers, and M. Ren, 2005, Origin of Rhyolite by Crustal Melting and the Nature of Parental Magmas in the Oligocene Conejos Formation, San Juan Mountains, Colorado, USA: Journal of Volcanology and Geothermal Research, v.139, p.185-210.

Rinard, B.D., 2005, Volcano Studies in Hawaii: An Opportunity to Expose Geology Students from the South to a New Geologic Environment: *in* Abstracts with Programs, Geological Society of America 2005 South-Central Section Meeting, San Antonio, TX.

Rinard, B.D., E. Herrin, P. Okubo, and J.-L. Got, 2001, Precise Relative Relocation of Intrusive Dikes on Kilauea's Southwest Rift Zone: *in* Abstracts, Symposium on the Icelandic Plume and Crust, Keflavik, Iceland.

Rinard, B.D., P. Okubo, and E. Herrin, 2006, Deep Tectonic Earthquakes Beneath Kilauea Volcano: Eos Transactions, v. 85, n.52, Fall Meeting Supplement, Abstract S53E-08.

Rinard, B.D., P. Okubo, and E. Herrin, 2004, Active Structures on the Western South Flank of Kilauea Volcano, Hawaii Delineated by Relocated Earthquakes: Geological Society of America Abstracts with Programs, v.36 n.5.

Rinard, B.D., P. Okubo, and E. Herrin, 2001, Preliminary Relocations on Kilauea's Southwest Rift Zone and Western South Flank: *in* Eos. Transactions, v.82, n.47, Fall Meeting Supplement, Abstract S22E-02.

Weindorf, D., B. Rinard, B.J. Haggard, S. Johnson, A. McWhirt, and J. McPherson, 2008, *High Resolution Soil Survey of Capulin Volcano National Monument, Report for the National Park Service*, Louisiana State University Agriculture Center Press, 80p.

Weindorf, D., B. Rinard, Y. Zhu, S. Johnson, B. Haggard, J. McPherson, M. Dia, C. Spinks, and A. McWhirt, 2008, High resolution soil survey of Capulin Volcano National Monument: *in* Soil Survey Horizons, v. 49, p.55-62.