

**Roger L. Nielsen**  
**Research Scientist IV**  
**Academic Policy Coordinator**

**EDUCATION**

B.S., Geology, University of Arizona, 1976  
M.S., Geology, University of Arizona, 1978  
Ph.D., Geology, Southern Methodist University, Dallas, Texas, 1983

**Current Position**

Research Scientist IV, South Dakota Mines 2018-  
Academic Policy Coordinator, South Dakota Mines, 2019-  
Professor Emeritus, College of Earth, Ocean and Atmospheric Sciences, Oregon State University 2018-

**Past Positions**

Professor, College of Earth, Ocean and Atmospheric Sciences, Oregon State University 2011-2018  
Professor, Department of Geosciences, Oregon State University 2008-2011  
Professor and Chair, Department of Geosciences, Oregon State University 2003-2008  
Professor and Director, Geology Program, Department of Geosciences, Oregon State University 2000-3  
Professor, College of Oceanic and Atmospheric Sciences, Oregon State University 1997-2003  
Associate Professor, College of Oceanic and Atmospheric Sciences, Oregon State University, 1991-1997  
Research Associate, College of Oceanography, Oregon State University, 1988-1991  
Assistant Professor, Department of Geology, University of Maryland, 1982-1988  
Graduate Research Assistant, Department of Geology, Southern Methodist University, 1979-1982  
Graduate Research Assistant: Department of Geological Sciences, University of New Mexico, 1978-1979  
Graduate Research Assistant, Department of Planetary Sciences, University of Arizona, 1976-1978

**FIELDS OF SPECIALIZATION**

Igneous Petrology  
Trace element geochemistry  
Mineral chemistry and phase equilibria  
Microanalysis Techniques

**PROFESSIONAL ACTIVITIES**

American Geophysical Union  
Mineralogical Society of America  
Geological Society of America

**PUBLICATIONS**

Citations 4650 h-index 39 i10 index 58 (tabulated in Google scholar)

**Reviewed Publications**

- 89 Dygert, N., Ustunisik, G., and Nielsen, R. L. (*in-review Nature Communications*, **2023**).  
Europium in Plagioclase Reveals Mantle Melting Modulates Oxygen Fugacity.
- 88 Hewitt, J.E., Ustunisik, G. and Nielsen, R.L (submitted to *Geochem Geophys, Geosystems*)  
Petrogenesis of Plagioclase Ultraphyric Basalts (PUB) from the Northeastern (NE) Pacific  
Ridge System: Evidence from Mineral Textures and Geochemical Characteristics
- 87 Cung, E., Ustunisik, G., Wolf, A., and Nielsen, R. L., 2023, Quantitative Analysis of Trace  
Element Partitioning Data for Clinopyroxene, Garnet, and Amphibole Using Statistical  
Methods. *Geochem Geophys, Geosystems*, 24. <http://doi.org/10.1029/2023GC010876>.
- 86 Sargeant, H. M., Schultz, J., Moser-Mancewicz, N., Long-Fox, J., Ustunisik, G., Nielsen, R.L.,  
and Britt, D., 2022, Lunar Simulant Considerations for Molten Regolith Electrolysis  
Experiments, In 53<sup>rd</sup> Lunar and Planetary Science Proceedings.
- 85 Ustunisik, G.K., Nielsen, RL, Walker, D.W., 2021, The Missing Magmas of MOR: Insights  
From Phase Equilibrium Experiments on Plagioclase Ultraphyric Basalts. *Geochemistry  
Geophysics Geosystems*, 23, <https://doi.org/10.1029/2021GC009943>.
- 84 Rose-Koga, E.F., Bouvier, A.S., Gaetani, G.A., Wallace, P.J., Allison, C., Andrys, J.A.,  
Angeles de la Torre, C.A., Barth, A., Bodnar, R.J., Bracco Gartner, A.J.J., Butters, D.,

- Castillejo, A., Chilson-Parks, B., Choudhary, B. R., Cluzel, N., Cole, M., Cottrell, E., Daly, A., Danyushevsky, L.V., DeVitre, C.L., Drignon, M.J., France, L., Gaborieau, M., Garcia, M.O., Gatti, E., Genske, F.S., Hartley, M.E., Hughes, E., Iveson, A.A., Johnson, E.R., Jones, M., Kagoshima, T., Katzir, Y., Kawaguchi, M., Kawamoto, T., Kelley, K.A., Koornneef, J.M., Kurz, M.D., Laubier, M., Layne, G.D., Lerner, A., Lin, K-Y., Liu, P., Lorenzo-Merino, A., Luciani, N., Magalhães, N., Marschall, H.R., Michael, P.J., Monteleone, B.D., Moore, L.R., Moussallam, Y., Muth, M., Myers, M.L., Narvaez D.F., Navon, O., Newcombe, M.E., Nichols, A.R.L., Nielsen, R.L., Pamukcu, A., Plank, T., Rasmussen, D.J., Roberge, J., Schiavi, F., Schwartz, D.M., Shimizu, Kei, Shimizu, K., Shimizu, N., Thomas, J.B., Thompson, G., Tucker, J.M., Ustunisik, G., Waelkens, C., Zhang, Y., and Zhou, T. (2021) Silicate Melt Inclusions in the New Millennium: A Review of Recommended Practices for Preparation, Analysis, and Data Presentation. *Chemical Geology*, 570, 120-145, <https://doi.org/10.1016/j.chemgeo.2021.120145>.
- 83 Lewis, K., Ustunisik, G.K., Nielsen, R.L., 2021, Experimental Constraints on Homogenization of Plagioclase-Hosted Melt Inclusions from Plagioclase Ultraphyric Basalts, *Frontiers*. doi: 10.3389/feart.2020.584371
- 82 Drignon, M.J., Arbaret, L., Cluzel, N., Nielsen, R. L. Bodnar, R.J., 2020, Experimentally-induced Re-equilibration of Plagioclase-hosted Melt Inclusions, *Geochemistry, Geophysics, Geosystems* <https://doi.org/10.1029/2020GC009357>
- 81 Nielsen, R.L., Ustunisik, G., Lange, A., Tepley, F.J., 2020, Trace Element and Isotopic Characteristics of Plagioclase Megacrysts in MORB, *Geochemistry, Geophysics, Geosystems*, 21, e2019GC008638. <https://doi.org/10.1029/2019GC008638>
- 80 Ustunisik, G.K., Ebel, D.S., Walker, D., Nielsen, R.L., Gemma, M., 2019, Trace element partitioning between CAI-type melts and grossite, melilite, hibonite, and olivine, *Geochimica et Cosmochimica Acta*, 267, 124-146
- 79 Drignon, M. J., Nielsen, R. L., Tepley, F. J., III, & Bodnar, R. J., 2019, Re-equilibration processes occurring in plagioclase-hosted melt inclusions from plagioclase ultraphyric basalts. *Geochemistry, Geophysics, Geosystems*, 20, 109–119. <https://doi.org/10.1029/2018GC007795>
- 78 Drignon, M.J., Nielsen, R.L., Tepley, F.J. III and Bodnar, R.J., 2018, Upper mantle origin of plagioclase megacrysts from plagioclase ultraphyric MORB, *Geology*, doi.org/10.1130/G45542.1
- 77 Nielsen, R.L., Ustunisik, G., Weinsteiger, A.B., Tepley, F.J., Johnston, A.D. and Kent, A J.R., 2017, Trace Element Partitioning Between Plagioclase and Melt: An Investigation of the Impact of Experimental and Analytical Procedures, *Geochemistry, Geophysics, Geosystems*, DOI 10.1002/2017GC007080
- 76 Ustunisik, G.U., Loewen, M., Nielsen, R.L. and Tepley, F.S., 2016, Interpretation of the Provenance of Small Scale Heterogeneity as Documented in a Single Eruptive Unit from Mt. Jefferson, Central Oregon Cascades, *Geochem. Geophys. Geosyst.*, 17, doi:10.1002/2016GC006297.
- 75 Hatfield, A.K., Nielsen, R.L., Kent, A.J.R., Rowe, M.C., Duncan, R.A., 2015, Snow Peak, Oregon: latest Miocene low-K tholeiite volcanism in the Cascadia forearc, *Lithos*, 239, 86-96.
- 74 Ustunisik, G.U., Kilinc, A., Nielsen, R.L., 2014, New Insights into the Processes Controlling Compositional Zoning in Plagioclase, *Lithos* 200–20, 80–93
- 73 Lange, A.E., Nielsen, R.L., Tepley, F.S., Kent, A.J., 2013, The petrogenesis of plagioclase-phyric basalts at mid-ocean ridges, *Geochem Geophys Geosystems*. v. 14, #8, doi: 10.1002/ggge.20207

- 72 Lange, A.E., Nielsen, R.L. Kent, A.J., Tepley, F.S., 2013. Diverse Sr isotope signatures preserved in MORB plagioclase, Geology, 41; # 2; 279–282; doi:10.1130/G33739.1
- 71 Nielsen, R.L., 2011, The Effects of Re-homogenization on Plagioclase Hosted Melt Inclusions, Geochem Geophys Geosys, #2011GC003822R
- 70 Adams, D.T., Nielsen, R.L. Kent, A.J., Tepley, F.S., 2011. Origin of minor and trace element compositional diversity in melt inclusions: Evidence from anorthitic feldspar phenocrysts from the Juan de Fuca Ridge. Geochem Geophys Geosys, #2011GC003778R
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- 64 Kohut, E.J. and Nielsen, R.L., 2003, Low pressure phase equilibria of anhydrous anorthite bearing mafic magmas G-cubed, v. 4 #7, ISSN 1527-2027.
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- 62 Michael, P.J., McDonough, W.F., Nielsen, R.L., Cornell, W.C., 2002, Depleted Melt Inclusions in Plagioclase: Messages from the Mantle or Mirages from the Magma Chamber? Chem. Geol., 183, 43-61.
- 61 Sours-Page, R., Nielsen, R.L. and Batiza, R., 2002, Parental magma diversity on a fast-spreading ridge: Evidence from olivine and plagioclase-hosted melt inclusions in axial and seamount lavas from the northern East Pacific Rise Chem. Geol., 183, 237-262.
- 60 Norman, M., Garcia, M., Kamenetsky, D. and Nielsen, R.L., 2002. Melt inclusions in Hawaiian picrites: Melting and source compositions Chem. Geol., 183, 143-168.
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- 54 Nielsen, RL, Michael, P. and Sours-Page, RE, 1998, Physical and chemical indicators of compromised melt inclusions. Geochim. Cosmochim. Acta, 61, 161-172
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- 52 Staudigel, H, Albarede, F, Blicert-Toft, J, Demond, J, McDonough, W, Jacobson, SB, Kelling, R, Langmuir, CH, Nielsen, RL, Plank, T, Rudnick, R, Shaw, HF, Shirey, S, Veizer, J and White, W, 1998, Geochemical Earth Reference Model (GERM): Chem. Geol. 145, 153-161.
- 51 Johnson, J., Nielsen, R.L., and Fisk, M.R., 1996, Plagioclase-hosted melt inclusions in the Steens Mtn. basalts, Southeastern Oregon, Petrology 4, 267-73.
- 50 Bacon, P.E, Hou, J.G., Sleight, A.W., Nielsen, R.L., 1995, Nitride formation by air ignition, Journal of solid state chemistry, 119 #1, 207-209.
- 49 Nielsen RL, Christie D.M., Sprtel F.M., 1995, Anomalous low Na magmas: Evidence for depleted MORB or analytical artifact? Geochem. Cosmochim. Acta 59, 5023-5026.
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- 47 Ariskin, A.A., Barmina, G.S., Ozerov, A.Yu., Nielsen, R.L., 1995, Genesis of high-alumina basalts of Klyuchevskoi Volcano. Petrology 3, 449-472.
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- 43 Nielsen, R.L., Forsythe, L.M., Gallahan, W.E., and Fisk, M.R., 1994, The major element controls on the partitioning of HFSE between magnetite and mafic to intermediate composition natural silicate liquids at 1 atmosphere. Chem. Geol. 117, 167-193.
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- 40 Ariskin, A.A., Frenkel, M.Y., Barmina, G.S and Nielsen, R.L., 1993, COMAGMAT 3.0: A FORTRAN program to model magma differentiation processes Computers and Geosciences, 19, # 8, 1155-1170.
- 39 Ariskin, A.A. and Nielsen, R.L., 1993, Application of computer simulation of magmatic processes to the teaching of petrology, Jour. Geol. Ed., 41, 1-6.
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- 37 Frey, F.A., Walker, N., Stakes, D., Hart, S.R. and Nielsen, R.L., 1993, Geochemical characteristics of basaltic glasses from the AMAR and FAMOUS axial valleys, Mid-Atlantic Ridge (35-37 °N): Petrogenetic implications. EPSL, 115, 117-136
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- 34 Gallahan, W. E. and Nielsen, R.L., 1992, Experimental determination of the partitioning of Sc, Y and REE between high-Ca clinopyroxene and natural mafic liquids. Geochim. Cosmochim. Acta, 56, 2387-2404.
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- 32 Toole, C. and Nielsen, R.L., 1992, Analytical considerations for testing hypotheses related to otolith microchemistry using the electron microprobe. Fisheries Bulletin, 90, 421-427.

- 31 Nielsen, R.L. and DeLong, S.E., 1992, A numerical approach to modeling boundary layer fractionation: Application to differentiation in natural open magma systems. Contrib. Mineral. Petrol., 110, 355-369.
- 30 Laird, G., Brown, R.R. and Nielsen, R.L., 1991, Some comments on the eutectic solidification of Cr-Ni (-Si - Mn) white cast iron, Materials and Sci. Tech. 7, 631-644
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- 26 Nielsen, R. L., 1990. The use of simulated data sets for the evaluation of the sensitivity of Pearce element ratio analysis. in Theory and application of Pearce Element Ratios to geochemical data analysis, eds. Russell and Stanley, 8, 157-178.
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- 24 French, B.M. and R.L. Nielsen, 1990. Vredefort Bronzite Granophyre: Chemical evidence relating to its origin. Tectonophysics, 171, #1, 119-138.
- 23 Nielsen, R.L., E.S. Landis, V.M. Ceci and C. Poston, 1989. The commingling of diverse magma types in the Flagstaff Lake Igneous Complex. Invited paper for Jackson Memorial Volume of Maine Geological Survey Bulletin, Vol. 2, Igneous and Metamorphic Petrology of Maine, 120-145.
- 22 Nielsen, R.L., 1989. Phase equilibria constraints on liquid lines of descent generated by paired assimilation and fractional crystallization: Trace elements and Sr and Nd isotopes. Jour. Geophys. Res., 94, B1,787-794.
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~440 abstracts/presentations at national and international conferences, in addition to the peer reviewed contributions above.

## **TEACHING, ADVISING AND OTHER ASSIGNMENTS**

Prior to retirement from Oregon State University (1988-2018), I taught a mixture of graduate, undergraduate and baccalaureate courses in the field of geochemistry, volcanology and petrology. In addition, from 1982-88 I taught 4 semester courses per year as an Assistant Professor at the University of Maryland. Over that 36-year period, I taught 18 different courses, as well as many other topical graduate seminars, reading and conference, and non-credit courses and workshops.

As an advisor, I have supervised over 30 graduate student theses, and served on almost 50 graduate committees.

### **Program and course innovations**

**Vice Provost and Dean of Undergraduate Studies Task Force (VPDUS)** – 2015- 2017 Task force objective is to evaluate the current status of the common curriculum (e.g. first year experience, bac core) and to make recommendations on ways to improve retention and completion.

**Revision of Geo415 Petrography** – 2014 – Expanded the scope of Geo415 in consultation with the Geo faculty. The content was expanded to include sedimentary and metamorphic rocks, and the learning outcomes were streamlined.

**Updated delivery of Geo101**– 2013-6 – Updated delivery and introduced new methods for administering quizzes, encouraging students to do the assigned readings and updated the laboratory materials.

**Earth Systems Curriculum Working Group** – 2009 – 2011-Developed proposal at the request of the Deans of COS and COAS for submission to the provost for the development of an Earth Systems Instructional Program in 2008 then reformed in 2009-10 to complete revision of an integrated Earth Science undergraduate program.

**Geosciences Curriculum Revision Committee** – 2009 – Developed a proposal at the request of the Geosciences faculty for the merger of the Geology and Geography BS degrees into a single undergraduate degree.

**Geo352 Oregon Geology** – Developed new baccalaureate core course that focuses on experiential learning in the field. Students take a 9 day field trip around Oregon learning about the geologic history of the state, and how that foundation influences how and where we live. In addition to the field aspects of the course, the students are responsible for writing an in depth report on one aspect of how geology influences our economy, the ecology, agriculture and resource use.

**Geo518 Geoscience Communication** – 2007- Graduate level course on technical writing and editing. This course is focused on the development of geoscience concepts in manuscript, proposal and oral presentation forms. It was delivered for the first time in the Winter of 2007.

**GE/OC528 Microprobe Analysis** – 1989 - Developed techniques course for microanalysis designed for a broad student clientele.

**OC668 Theoretical Petrology** – 1998, 2010, 2012, 2014, 2016 -This course was developed to fill a gap in the theoretical background of the petrology graduate students.

## RESEARCH

### Competitive Grant Support

Subject/title	Agency	Duration	\$ grant
<i>Collaborative Research: Next Generation Interoperable Data Infrastructure for Geoscience Sample Data (EarthChem, LEPR/traceDs, SESAR): IEDA Re-invented</i> , (w/Nielsen – SDM, Lehnert - LDEO PI)	NSF-Informatics	8/22-7/27	466,082 (SDSMT share)
Collaborative Research: Understanding the influence of tectonic setting on the depth of magmatic processes in the mid-ocean ridge system (w/Ustunisik SDM and Gaetani – WHOI)	NSF-OCE	2/22-1/25	405,000 (SDSMT share)
RCN: Sharing Infrastructure Across Data Facilities and Cyberinfrastructure Providers: A Community Initiative of EarthCube's Council of Data Facilities (w/P. Antoshechkina, M Ghiorso, K. Lehnert and G. Ustunisik)	NSF-EarthCube	5/20-4/24	55,000 (SDSMT share)
Collaborative Research: EarthChem & SESAR – Data Infrastructure for Geochemistry and Earth Science Samples Communities (w/K. Lehnert and G. Ustunisik)	NSF-Informatics	5/20-4/23	120,000 (SDSMT share)
Maintenance grant for traceDs, database for experimental trace element partitioning (w/K. Lehnert and G. Ustunisik)	NSF-MGG/EAR	12/17-20	73,000
An Experimental and Analytical Investigation of the Parameters That Influence Measured CO <sub>2</sub> in Plagioclase-Hosted Melt Inclusions in MORB (w/Tepley (OSU) and Bodnar (VT))	NSF-MGG/EAR	9/16-8/20	299,000
Maintenance grant for traceDs, database for experimental trace element partitioning (w/K. Lehnert and M. Ghiorso)	NSF-MGG/EAR	12/13-17	60,000



MORB Construction Processes: Plutonic to Volcanic Connections in Plagioclase Ultraphyric Basalts (PUBs) (w/F. Tepley and A. Kent)	NSF-MGG	9/09-8/13	357,424
Collaborative Research: Experimental Determination of Trace Element Partition Coefficients Between Anorthitic Plagioclase and MORB w/ Dana Johnston - UO)	NSF-MGG	9/09-9/13	268,045
The Influence of the Simultaneous or Sequential Offering of Ecampus and Face to Face Courses	OSU Extended Campus	9/09-10/11	11,000
The Influence of the Simultaneous or Sequential Offering of Ecampus and Face to Face Courses	OSU Extended Campus	9/09-10/10	9750
Evaluating the Relationship Between Melt Inclusions and Host for high Anorthite Plagioclase: Prevalence and Significance of Trace element Diversity in MORB Plagioclase (w/A. Kent)	NSF-MGG	2/05-4/09	178,000
Collaborative Research: Volatile recycling and magma genesis in a hot, dry subduction zone: A case study of the Cascade Arc (w/A. Kent and Paul Wallace UO)	NSF-EAR	2/05-1/09	259,000

#### **Previous Competitive Funding (pre-2005)**

Collaborative Research: Acquisition of an electron microprobe for Oregon State University with remote access facilities for Portland State University National Science Foundation - Directorate for Geosciences 2003-09-01 to 2005-08-31|

Acquisition of an electron microprobe for Oregon State University in collaboration with the Analytical Facilities at Hewlett-Packard – Corvallis (matching funds) 2003-4

Collaborative Research: Mantle Inputs to the Subduction Factory: Assessing Scales of Spatial Variability along and across the IBM Convergent Margin National Science Foundation - Directorate for Geosciences 2000-09-01 to 2004-08-31|

An Experimental Investigation of Melt Inclusion Formation, Phase Equilibria and Trace Element Partitioning in Anorthitic Feldspar in Natural Mafic Systems National Science Foundation - Directorate for Geosciences 1999-07-01 to 2003-05-31

Collaborative Research: Acquisition of an inductively couple mass spectrometer for Oregon State University National Science Foundation - Directorate for Geosciences 2001-09-01 to 2003-08-31|

The Diversity of Parent Magmas and the Role of Axial Magma Processes at a Fast-Spreading Ridge: Evidence from Melt Inclusions & Near-Axis Seamount Lavas from the N. EPR, National Science Foundation - Directorate for Geosciences 1998-06-01 to 2001-05-31|

Geochemical Evolution of Kilauea Volcano, Hawaii - Evidence from Melt Inclusions in Three Deep Rock Cores National Science Foundation - Directorate for Geosciences 1997-06-15 to 1999-05-31

Local and Regional Variation of MORB Parent Magma Compositions: Evidence from Melt Inclusions from the Endeavour Segment of the Juan de Fuca Ridge National Science Foundation - Directorate for Geosciences 1995-05-15 to 1997-10-31



Collaborative Research: Experimental Determination of the Partitioning Behavior of REE and HFSE Between Calcic Amphibole and Intermediate Composition Magmas, National Science Foundation - Directorate for Geosciences, 1994-08-01 to 1997-07-31|

Technical Support for the Electron Microprobe Laboratory at Oregon State University, National Science Foundation - Directorate for Geosciences, 1994-02-15 to 1996-07-31

Equipment Upgrade for the Electron Microprobe Facility at Oregon State University, National Science Foundation - Directorate for Geosciences, 1993-09-01-to-1996-02-29

The Petrogenesis of Near-Primary MORB Melt Inclusions: Implications Regarding Mantle Melting and Differentiation Processes National Science Foundation - Directorate for Geosciences, 1992-12-01 to 1995-05-31|

The Development of a Model for the Simulation of Igneous Differentiation Processes for Mafic and Intermediate Composition Magmas National Science Foundation - Directorate for Geosciences, 1992-07-01 to 1993-12-31|

Collaborative Research: The Experimental Determination of the Partitioning Behavior of Y and the Rare Elements Between Pyroxene and melt at High Pressure (10-20 Kbar), National Science Foundation - Directorate for Geosciences 1992-03-01 to 1994-08-31

Technical Support for the Electron Microprobe Facility at Oregon State University, National Science Foundation - Directorate for Geosciences 1991-4

Experimental Determination of the Partitioning Behavior of First Transition Series and High Field Strength Elements Between Oxide Phases and Basaltic and Intermediate Magmas, National Science Foundation - Directorate for Geosciences 1988-1991

Experimental Determination of the Temperature Dependence of Ni, Sc, Y, La, Sm and Lu Partition Coefficients Between Pyroxene and Differentiated Mafic Liquids National Science Foundation - Directorate for Geosciences 1986-88

REE mineralogy of Wing Hill mineral deposit – IGE 1983-8

Experimental determination of the phase equilibria of spinel in basaltic systems at low pressure Welch Foundation 1979-83

**College, University and Professional Service (past 28 years)**

Member - Promotion and Tenure Committee – COAS	1996-7
Member - Graduate Committee – Geosciences	1996-7
Member - Faculty Grievance Committee - Faculty Senate	1996-9
Member - Information and Public Education – COAS	1997-8
Chair - Faculty Grievance Committee - Faculty Senate	1997-9
Graduate Admissions Coordinator- Geology program	1998-9
Graduate Advisor – Geology program	1998-9
Chair - Information and Public Education – COAS	1998-2000
Chair - Graduate Committee – Geosciences	1997-2003
Member – Peer review of Teaching Committee – COAS	2000-1
Chair - Graduate Committee – Geosciences	1999-2003
Program Director – Geology Program – Geosciences	2000-3
Chair – Advisory Committee – Geosciences	2001-2
Research Council – Faculty Senate (member 2001-2, chair 2002-4)	2001-3
Chair - AGU - VGP Education and Outreach Committee	2000-2002

Member – Env. Sciences Steering Committee (undergrad)	2002-6; 2009-11
Member – University Indirect Cost Recovery Task Force	2003-4
Member – College of Science Promotion and Tenure Committee	2004, 2006, 2008
Member – College of Science – Space Committee	2004-5
Member – University Conflict of Interest Committee	2003-5
Member – COAS-Geosciences New Building Committee	2003-5
Member – University Space Allocation Task Force	2003-6
Member – Sustainable Rural Communities Initiative Exec Committee	2004-6
Member – University Undergraduate Research Advisory Panel	2004-6
Member – Ad Hoc COS committee on undergraduate research	2006-7
Chair – Department of Geosciences	2003-8
Chair – Departmental Alumni Relations Committee	2003-8
Member – University Space Committee	2006-8
Member – University Post-Tenure Review Task Force	2007-8
Member - Earth System Science Curriculum Working Group	2007-8
Faculty Senate Promotion and Tenure Committee (member 2005-6, chair 2006-8)	
Chair – Associate Dean of Research (COS) search committee	2008
Member – Undergraduate Committee – Geosciences	2009
Member – GSA Portland 2009 local organizational committee	2008-9
Chair – Geosciences Promotion and Tenure Committee	2009-10
Member – Geosciences Alumni Committee	2009-11
Member - Provost Task Force on Distance Education	2010-11
Member – Transition Committee for Geosci-COAS merger	2009-11
Head Advisor – Earth Science Program	2009-11
Member - Undergraduate Program Committee	2010-11
Member - Earth System Science Curriculum Committee	2010-11
Member – University Undergraduate Research Group	2009-11
CEOAS committee on P&T process revision	2011
CEOAS Facilities Committee	2011-12
Curator – Taylor Mineral Collection	2009-13
Member - University Collections Committee	2011-3
Faculty Senate Distance Ed Committee (member 10-11, Chair 11-13)	2010-3
Member – CEOAS Peer Review of Teaching Committee	2012-3
Chair - CEOAS Alumni Relations Committee	2012-3
Member – OSU Biology Program Review	2013
Member – CEOAS Graduate Admission Committee	2013-4
Member – CEOAS Strand Ag Remodeling Committee	2013-5
Member – CEOAS Instructional program Committee	2014-6
Member – VP and Dean Undergraduate Studies Task Force	2015-7
Member – Oregon Inter-institutional Faculty Senate	2016-8
Member – OSU Faculty Senate Executive Committee	2017-8

#### **South Dakota Mines – 2018 – present**

Member – South Dakota Mines Tribal STEM Consortium	2020-
Member – ADVANCE Empower PI Working Group	2020-

In addition to the service duties listed above, I served on agency panels (most NSF) over a dozen times and participated in external program reviews at other universities – whose membership is confidential.