

Curriculum Vitae
Mark C. Greenwood
Assistant Professor of Statistics
Department of Mathematical Sciences
Montana State University

EDUCATION

University of Wyoming, Laramie, WY **Ph.D. in Statistics, 2004**
Dissertation: *Functional data analysis for glaciated valley profile analysis*
Major Professor: Snehalata Huzurbazar

University of Wyoming, Laramie, WY **M.S. in Statistics, 2000**
Thesis: *State space analysis of surface velocity and deformation of glaciers*
Major Professor: Snehalata Huzurbazar

Luther College, Decorah, IA **B.A. in Math/Stat, 1996**
Minor: Economics

AREAS OF INTEREST

Time Series Analysis
Functional Data Analysis
Model Selection Criteria
Generalized Additive Mixed Models
Permutation Methods

EXPERIENCE

Assistant Professor of Statistics, Department of Mathematical Sciences, Montana State University, Fall 2005-

Visiting Assistant Professor of Statistics, Department of Mathematical Sciences, Montana State University, 2004-2005

Graduate Teaching Assistant, Department of Statistics, University of Wyoming, 1996-1997; 1998-2004

Graduate Research Assistant, Spatial Data and Visualization Center, NSF EPSCoR, University of Wyoming, 1997-1998

AWARDS

BEST (Buyout for Enhancing Scholarship and Teaching), Montana State University, 2009

College of Letters and Sciences Research Enhancement Award, Montana State University, 2009

John P. Ellbogen Meritorious Classroom Teaching Award, University of Wyoming, 2001

Outstanding Master's Student Award, Department of Statistics, University of Wyoming, 2000

Presidential Scholar, Luther College, 1992-1996

PUBLICATIONS

Refereed Journal Publications

1. Greenwood, M., Sojda, R., Sharp, J., Peck, R., and Rosenberry, D. (2011) Multi-scale clustering of functional data with application to hydraulic gradients in wetlands, to appear in the *Journal of Data Science*, 9, July.

2. Bandyopadhyay, P., Nelson, D., Brittan, G., Greenwood, M. and Berwald, J. (2011) The Logic of Simpson's Paradox, to appear in *Synthese*, Fall.
 3. Arrigoni, A., Greenwood, M., and Moore, J. (in press) The relative impact of anthropogenic modifications versus climate change on the natural flow regimes of rivers in the Northern Rocky Mountains, USA, *Water Resources Research*. DOI:10.1029/2010WR009162
www.agu.org/journals/wr/2010WR009162-pip.pdf
 4. Dieser, M., Greenwood, M., and Foreman, C. (2010) Carotenoid pigmentation in Antarctic heterotrophic bacteria as a strategy to withstand environmental stresses, *Arctic, Antarctic, and Alpine Research*. 42(2), 10 pages, DOI: 10.1657/1938-4246-424.
- Greenwood, M., Dieser, M. and Foreman, C. (2010) Appendix. Carotenoid pigmentation in Antarctic heterotrophic bacteria as a strategy to withstand environmental stresses, 6 pages.
5. Moore, J. N., Harper, J.T., and Greenwood, M. (2007) Significance of trends toward earlier snowmelt runoff, Columbia and Missouri Basin headwaters, western United States, *Geophysical Research Letters*, 34, L16402: 1-5, DOI:10.1029/2007GL031022.
- Greenwood, M. Online supplementary materials for "Moore, J. N., Harper, J.T. and Greenwood, M. (2007) Significance of trends toward earlier snowmelt runoff, Columbia and Missouri Basin headwaters, western United States, *Geophysical Research Letters*, 34, L16402", 8 pages.
www.agu.org/journals/gl/gl0716/2007GL031022/supplement.shtml
6. Yamreudeewong, W., McPeak, D., and Greenwood, M. (2004) Formulary conversion from Doxazosin to Terazosin for the treatment of benign prostatic hyperplasia in a small Veterans Hospital, *Hospital Pharmacy*, 39, 47-51.
 7. Yamreudeewong, W., Lower, D., Kilpatrick, D., Enlow, A., Burrows, M., and Greenwood, M. (2003) Effect of levofloxacin coadministration on the International Normalized Ratios during Warfarin therapy, *Pharmacotherapy*, 23(3), 333-338.
 8. Harper, J.T., Humphrey, N.F., and Greenwood, M. (2002) Basal conditions and glacier motion during the winter/spring transition, Worthington Glacier, Alaska, U.S.A., *Journal of Glaciology*, 48(160), 42-50.

Peer-Edited Journal Publication

1. Greenwood, M. and Gordon, G. (2010) An assessment of full cross-validation, *Interstat*, August, 13 pages.

Book Chapter, Peer-Edited

1. Greenwood, M., Harper, J., and Moore, J. (to appear), An Application of Statistics in Climate Change: Detection of Nonlinear Changes in a Streamflow Timing Measure in the Columbia and Missouri Headwaters, In P.S. Bandyopadhyay and M. Forster (Eds.), *Handbook of the Philosophy of Science, Vol. 7: Statistics*, Elsevier, 26 pages.

Proceedings, Refereed

1. Greenwood, M., Preston, T., and Sojda, R. (2010) Using functional linear models to test for differences in hydraulic gradients in prairie pothole wetlands with application to understanding climate change, *Modelling for Environment's Sake: Transactions of the 5th Biennial meeting of the International Environmental Modelling and Software*. 8 pages.

Proceedings, Non-Refereed

1. Greenwood, M. (2006) Predictive discrepancy using full cross-validation for regression models. *2006 Proceedings of the American Statistical Association, Statistical Computing Section* [CD-ROM], Alexandria, VA: American Statistical Association, 2043-2050.
2. Greenwood, M. and Humphrey, N.F. (2002) Glaciated valley profiles: An application of nonlinear regression, *Computing Science and Statistics*, 34, 452-460.
3. Greenwood, M. and Huzurbazar, S. (1999) Modeling borehole trajectories using state space models, *Proceedings of the Section on Bayesian Statistical Science*, Alexandria, VA: American Statistical Association, 37-41.

Published Abstracts

1. Greenwood, M., Humphrey, N.F., and Huzurbazar, S. (2002) Statistical analysis for U and V shaped valley profiles, *American Geophysical Union Fall Meeting*, San Francisco, CA.
2. Huzurbazar, S., Greenwood, M., Harper, J.T., and Humphrey, N.F. (2001) Descriptive statistics for the analysis of borehole inclinometry data, *American Geophysical Union Fall Meeting*, San Francisco, CA.
3. Harper, J.T., Humphrey, N.F., and Greenwood, M. (1999) Time-space changes in the subglacial hydrological system: water pressure, deformation and sliding velocity, and time-lapse video in a network of glacier boreholes, *Abstracts with Programs, Geological Society of America*, 31, A-257.

Book Reviews

1. Greenwood, M. (2007) Review of Nonparametric Functional Data Analysis: Theory and Practice. By Frederic Ferraty and Philippe Vieu, *Journal of the American Statistical Association*, 102(479), 1077.
2. Huzurbazar, S. and Greenwood, M. (2002) Review of Workshop Statistics: Discovery with Data, A Bayesian Approach. By James H. Albert and Allan J Rossman, *Technometrics*, 44(3), 493.

Reports

1. Huijser, M., Holland, T., Blank, M., Greenwood, M., McGowen, P., Hubbard, B., and Wang, S. (2009) The Comparison of Animal Detection Systems in a Test-Bed: A Quantitative Comparison of System Reliability and Experiences with Operation and Maintenance, Final report. FHWA/MT-09-002/5048. Western Transportation Institute – Montana State University Bozeman, MT, USA.
2. Gude, P., Greenwood, M., and Cookson, T. (2008) Summary of the Montana Wildfire Cost Study, Technical Report. Submitted to the Montana State Legislature Fire Suppression Interim Committee.

Submitted to Refereed Journals

1. Bandyopadhyay, P., Greenwood, M., and Brittan, G., Empiricism and/or Instrumentalism? re-submitted to the *British Journal of the Philosophy of Science*.
2. Greenwood, M. Regionalized follow-up tests for functional linear models, revising for re-submission to *Computational Statistics and Data Analysis*.
3. Greenwood, M. Distance-based functional linear models with missing observations: Testing for a trend in yearly temperature curves, submitted to the *Journal of Environmental Statistics*.
4. Greenwood, M., Peck, R., Pederson, G., and Sojda, R. Additive mixed models for trend and derivative estimation: Estimating temperature trends in Montana, submitted to *Environmetrics*.
5. Yopp, D. and Greenwood, M. Coach and Teacher Reflection Data's Ability to Explain Changes in Teaching Practices, submitted to *Education Evaluation and Policy Analysis*.
6. Foreman, C., Dieser, M., Greenwood, M., Cory, R., Laybourn-Parry, J., Lisle, J., Jaros, C., Miller, P., Chin, Y., and McKnight, D. When a habitat freezes solid: microbes over-winter within the ice column of a coastal Antarctic lake, re-submitted to *FEMS Microbiology Ecology*.
7. Greenwood, M. An enhanced bannerplot for monothetic clustering, with applications to microbial communities and educational test development, submitted to the *Electronic Journal of Applied Statistical Analysis*.

Works in Progress

1. Greenwood, M., Gude, P., and Cookson, T. Semiparametric-Trees with an application to modeling daily wildfire costs, in preparation for submission to *Statistical Analysis and Data Mining*.
2. Sojda, R., Sharp, J., Greenwood, M., Rosenberry, D., and Warren, J. Statistical classification of vegetation and water levels at Red Rock Lakes National Wildlife Refuge, in preparation for submission to *Wetlands*.
3. Syslo, J., Greenwood, M., and Guy, C. Spatial-temporal modeling of Lake Trout trends in Yellowstone Lake, WY, USA, in preparation for submission to *Canadian Journal of Fisheries and Aquatic Sciences*.
4. Sabacka, M., Priscu, J., Basagic, H., Greenwood, M., Fountain, A., and Wall, D. Aeolian Flux in the Taylor Valley, Antarctica, in preparation for submission to *Arctic, Antarctic, and Alpine Research*.
5. Kappenman, K, Webb, M., and Greenwood, M. Effect of Temperature on Embryo Development and Larval Survival in Pallid and Shovelnose Sturgeon, with application to predicting spawning distributions in the wild, in preparation for submission to the *Journal of Applied Ichthyology*.
6. Huijser, M., Holland, T., Blank, M. Greenwood, M., and Wang, S. A quantitative comparison of the reliability of animal detections systems and recommended requirements for system reliability, in preparation.
7. Greenwood, M., Gray, C., Salazar, R., and Vsevolozhskaya, O. Testing methods in repeated measures with an application to assessing changing functional connectivity in cortico-cortical beta-frequency coherence in a macaque monkey performing a visual working memory task, in preparation for submission to *Statistics for Biosciences*.

PRESENTATIONS

1. Greenwood, M. (2010) Permutation MANOVA for Functional Linear Models and Regionalized Follow-Up Tests. *Joint Statistical Meetings*, Vancouver, BC, Canada.
2. Greenwood, M. (2010) Functional linear models to test for differences in prairie wetland hydraulic gradients. *International Environmental Modeling and Software Society*, Ottawa, Ontario, Canada.
3. Greenwood, M. with K. Irvine and M. Higgs. (2010) Where is the help? Current and future statistical consulting infrastructure at MSU. Presentation to *Bioinformatics Users Group*, Montana State University.
4. Sojda, R. and Greenwood, M. (2010) Wetlands of Red Rock Lakes National Wildlife Refuge: A Preliminary Understanding of Their Geohydrology and Ecology, *Montana Wetlands Council*, Helena, MT.
5. Greenwood, M., Vsevolozhskaya, O., Salazar, R., and Gray, C. (2009) Functional maps of cortico-cortical beta-frequency coherence in a macaque monkey performing a visual working memory task, *Neuroscience 2009*, Society for Neuroscience, Chicago, IL (Poster Presentation)
6. Greenwood, M., Vsevolozhskaya, O., Salazar, R., and Gray, C. (2009) Functional maps of cortico-cortical beta-frequency coherence in a macaque monkey performing a visual working memory task, *Joint Statistical Meetings*, Washington, DC.
7. Greenwood, M., Moore, J., and Harper, J. (2008) Additive Mixed Models for Assessing Change in Yearly Streamflow Timing Measures in the Western United States. *Joint Statistical Meetings*, Denver, CO.
8. Greenwood, M., Harper, J., and Moore, J. (2007) Yearly Streamflow Discharge Analysis Using Functional Regression Models, *American Geophysical Union*, Fall Meeting, San Francisco, CA. (Poster Presentation)
9. Greenwood, M., Harper, J. and Moore, J. (2007) Functional linear models for daily and yearly streamflow measures, *Joint Statistical Meetings*, Salt Lake City, UT.
10. Greenwood, M. (2007) Parametric, nonparametric, and semi-parametric models for yearly streamflow runoff measures, Montana State University-Bozeman, Department of Physics, Bozeman, MT.
11. Greenwood, M. (2006) Modern Approaches to the Analysis of Environmental Time Series, Montana State University-Bozeman, Department of Ecology, Bozeman, MT.
12. Greenwood, M. (2006) A comparison of FCV and CV based measures for model selection, *Annual Meeting of the Montana Chapter of the American Statistical Association*, Butte, MT.
13. Greenwood, M. (2006) Predictive discrepancy using full cross-validation for regression models, *Joint Statistical Meetings*, Seattle, WA.
14. Greenwood, M. (2006) Functional clustering by shape of elevation profiles, *New Researchers in Probability and Statistics*, Seattle, WA. (Poster Presentation)
15. Greenwood, M. (2005) A Brief Intro to Functional Data Analysis, *Annual Meeting of the Montana Chapter of the American Statistical Association*, Butte, MT.
16. Greenwood, M. (2005) Statistical Methods for Valley Elevation Cross-Profiles, University of Montana, Department of Mathematical Sciences, Missoula, MT.

17. Greenwood, M. (2005) U and V-shaped Valley Profiles and Careers in Statistics, Presentation for AP Statistics Courses, Central Academy, Des Moines, IA.
18. Greenwood, M. (2005) Functional Data Analysis for Valley Elevation Cross-Profiles, University of Nevada, Reno Department of Mathematics and Statistics, Reno, NV.
19. Greenwood, M. (2005) Functional Data Analysis for Valley Elevation Cross-Profiles, Montana State University, Department of Mathematical Sciences, Bozeman, MT.
20. Greenwood, M. (2004) Functional data analysis for glaciated valley profile analysis, University of Wyoming, Department of Statistics, Ph.D. defense, Laramie, WY.
21. Greenwood, M. (2004) Statistical analysis of valley profiles, University of Wyoming, Department of Statistics, Laramie, WY.
22. Greenwood, M. (2004) Data analysis for valley cross-profiles, Oberlin College, Department of Mathematics, Oberlin, OH.
23. Greenwood, M. (2004) Functional data analysis for glaciated valley profiles, Williams College, Department of Mathematics and Statistics, Williamstown, MA.
24. Greenwood, M. (2003) Modeling shapes of valley profiles, *1st Annual Graduate Student Symposium*, University of Wyoming, Laramie, WY. (Poster Presentation)
25. Greenwood, M. (2003) Modeling shapes of valley profiles, *IMS Mini-Meeting on Functional Data Analysis*, University of Florida, Gainesville, FL. (Poster Presentation)
26. Greenwood, M. (2002) Statistical analysis for U and V shaped valley profiles. *American Geophysical Union*, Fall Meeting, San Francisco, CA. (Poster Presentation)
27. Greenwood, M. (2002) Nonlinear regression for describing glaciated valley profiles, *34th Symposium on the Interface of Computing Science and Statistics*, Montreal, Quebec, Canada.
28. Greenwood, M. (2001) Panel speaker at the Graduate Student Teaching Seminar for the UW Graduate School, University of Wyoming, Laramie, Wyoming.
29. Greenwood, M. (2000) State space analysis of surface velocity and deformation of glaciers, University of Wyoming, Department of Statistics, Laramie, WY.
30. Huzurbazar, S. and Greenwood, M. (1999) Modeling borehole trajectories with state space models, *Joint Statistical Meetings*, Baltimore, MD.

PRESENTATIONS BY COLLABORATORS:

1. Jones, C., Chen, C., McVay, K., Stougaard, B., Westcott, M., Eckhoff, J., Lenssen, A., Weeding, J., and Greenwood, M. (2011) Measured and predicted temporal changes in soil nitrate-N levels from late summer to early spring in Montana, Western Nutrient Management Conference, Reno, Nevada.
2. Foreman, C., Diesler, M., and Greenwood, M. (2010) Carotenoid pigmentation in Antarctic bacteria as a strategy to withstand environmental stresses, *13th International Symposium on Microbial Ecology*, Seattle, WA.
3. Huijser, M., Allen, T., Blank, M., Greenwood, M., and Wang, S. (2010) A quantitative comparison of the reliability of animal detection systems and recommended requirements for system reliability, *National Rural ITS Conference*, Huntington, West Virginia.
4. Huijser, M., Allen, T., Blank, M., Greenwood, M., and Wang, S. (2010) A quantitative comparison of the reliability of animal detection systems and recommended

requirements for system reliability, *Infra Eco Network Europe International Conference on Ecology and Transportation*, Velence, Hungary.

5. Huijser, M., Holland, T., Blank, M., Greenwood, M., and Wang, S. (2009) A quantitative comparison of the reliability of animal detection systems and recommended requirements for system reliability. *International Conference on Ecology and Transportation*, Duluth, MN.
6. Bandyopadhyay, P., Nelson, D., Brittan, G., Greenwood, M., and Berwald, J. (2009) The Logic of Simpson's Paradox, *Formal Epistemology Workshop*, Pittsburgh, PA.
7. Kappenman, K., Webb, M., and Greenwood, M. (2009) The Thermal Dome for Sturgeon – Providing a Framework for Temperature Requirements for Pallid and Shovelnose Sturgeon at Various Life History Stages, *Missouri River Natural Resources Committee: Beyond the Bend*, March 26, Billings, MT.
8. Black, W., Greenwood, M., Weeding, J., Gagnon, L., and Bowman, J. (2008) Feeding grain decreases training efficiency in 2-year-old Quarter horses, *Western Society of Animal Science*, Laramie, WY.
9. Gilstrap, C., Greenwood, M., and Norton, K. (2007) Spatial Analysis of Drumlin Orientations, *American Geophysical Union*, Fall Meeting, San Francisco, CA. (Poster Presentation)
10. Bell, A., Moore, J., and Greenwood, M. (2007) Comparing Least Squares and Robust Methods in Linear Regression Analysis of the Discharge of the Flathead River, Northwestern Montana, *American Geophysical Union*, Fall Meeting, San Francisco, CA. (Poster Presentation)
11. Moore, J., Harper, J., and Greenwood, M. (2006) Apparent shift in time of spring runoff due to annual discharge variability in the headwaters of the Columbia-Missouri Rivers, *American Geophysical Union*, Fall Meeting, San Francisco, CA. (Poster Presentation)
12. Huzurbazar, S., Greenwood, M., Harper, J.T., and Humphrey, N.F. (2001) Descriptive statistics for the analysis of borehole inclinometry data, *American Geophysical Union Fall Meeting*, San Francisco, CA. (Poster Presentation)
13. Harper, J.T., Humphrey, N.F., and Greenwood, M. (1999) Time-space changes in the subglacial hydrological system: water pressure, deformation and sliding velocity, and time-lapse video in a network of glacier boreholes, *Abstracts with Programs, Geological Society of America*, 31, A-257.

GRANTS

Funded, Government or Nonprofit

1. Miles, M. (2010-2011) A stress reduction strategy for decreasing CVD risk by reducing C-reactive protein, American Heart Association Pacific Mountain Affiliate, \$131,352, role: Senior Personnel: \$5,400.
2. Burroughs, E., Yopp, D., Luebeck, J., and Sutton, J. (2009-2014) Examining Coaching in Elementary Mathematics Classrooms, National Science Foundation, \$3,500,000, role: Senior Personnel: \$100,000.
3. Greenwood, M and Sojda, R. (Co-PIs) (2010-2011) Analysis of Multiple Time Scales in Wetland Hydrology, Cooperative agreement, USGS, role: Co-PI, \$37,718.
4. Greenwood, M and Sojda, R. (Co-PIs) (2009-2010) Analysis of Multiple Time Scales in Wetland Hydrology, Cooperative agreement, USGS, role: Co-PI, \$37,483.

5. Greenwood, M and Sojda, R. (Co-PIs) (2008), Investigating Patterns in Wetland Hydrology and Vegetation Data, Cooperative agreement, USGS, role: Co-PI, \$17,625.
6. Garrott, R. (PI) (2006), Rocky Mountains Cooperative Ecosystems Study Unit Cooperative Agreement, National Park Service and MSU, \$5,666.67.
7. Yamreudeewong, W. (PI), Morrell, K., Nutting, L., Enlow, A., Lower, D., Kilpatrick, D., and Greenwood, M. (2003-2004), Effects of psyllium on blood glucose, Konsyl Pharmaceuticals, Inc., \$16,923.
(Study was never completed due to insufficient enrollment of subjects.)

Funded, Montana State University

1. BEST (Buyout for Enhancing Scholarship and Teaching), Montana State University, (2009), \$5,727.
2. College of Letters and Sciences Research Enhancement Award, Montana State University, (2009), \$2,017.

STATISTICAL CONSULTING

1. National Institute of Health Web-based Training Course “Protecting Human Research Participants”, 2010.
2. Supervisor of the Statistical Consulting Seminar for the Department of Mathematical Sciences, Fall 2007- Spring 2010.

Average of 15 researchers from MSU and the community assisted per year. Trained graduate students in consulting practice and supervised their consulting projects with clients. Coordinated departmental requests for consulting that were not able to be serviced through the seminar, providing assistance in summer and for more complex problems to an average of 5 researchers per year.

4. Road Ecology, 2006-present.

Contracted by Montana Department of Transportation Highway 93 South Technical Panel as a consultant to evaluate potential research and collaborate with researchers on statistical methods for assessing use of wildlife crossing structures and for assessing changes in accidents after construction of wildlife crossing structures.

Consultant to Western Transportation Institute to develop data analysis methods and on study design issues for a number of different projects, including the review and revision of the statistical methods used in “Evaluation of Wildlife Crossing Structures on Highway 93 Evaro to Polson, Final Report”, Montana Department of Transportation.

5. Survey analysis, 1999.

Analysis of survey of Wyoming Pharmacists, with Dr. K. London, University of Wyoming, Department of Psychology.

6. Bank customer service usage analysis, 1996.

Time series analysis of AmerUs Bank customer service phone bank usage, performed under the supervision of Dr. G. Bril, Luther College.

STUDENT PROJECTS

Graduate Students (M.S. Writing Projects):

1. Cody Custis (2006) Glacial Lake Missoula and the Self Censoring Data Problem.
2. Glenna Gordon (2008) A comparison of cross validation and full cross validation.

3. Ismael Suleman (2009) Application of Generalized Linear Mixed Models for Eritrean Malaria Data.
4. Olga Vsevolozhskaya (2009) Analysis of Localized Brain Activity.
5. Sydney Akapame (2010) GAMM-Trees for Understanding Northern Hemisphere Temperature Trends.
6. Jennifer Weeding (2010) RE-EM Trees For Predicting Temporal Changes in Soil Nitrate Levels.
7. Rory Peck (2010) Trend and Derivative Estimation using GAMMs: Estimating daily temperature trends in Montana.

Undergraduate Students:

1. Rory Peck (2007) Exploration of EOFs (Independent Study Research Project).
2. Rory Peck (2008) Detection of solar flares using GAMs (Independent Study Research Project).
3. Chris Gilstrap (2007-2008) Spatial Analysis of Drumlin Orientations (Independent Study Research Project, funded by MSU Undergraduate Scholars Program).

PROFESSIONAL MEMBERSHIPS

American Statistical Association
 Montana Chapter of the ASA
 Institute of Mathematical Statistics
 American Geophysical Union
 Society for Neuroscience
 Council On Undergraduate Research

LEADERSHIP/ SERVICE POSITIONS

Montana State University:

1. Statistics Group Leader, Department of Mathematical Sciences, Fall 2008 - Summer 2010.
 Responsibilities included coordinating Statistics group meetings, liaison between Statistics group and Department Head, and course scheduling.
2. Director, Statistical Consulting Services, 2007-2010
3. Graduate student committees (2005-): Total: 29
 Chair
 Statistics, M.S.: 7
 Statistics, Ph.D.: 1
 Member, M.S.:
 Statistics: 6
 Environmental and Ecological Statistics: 2
 Entomology: 1
 Fish and Wildlife Management: 1
 Ecology: 1
 Mathematics: 1
 University of Montana, Geosciences: 1

 Member, Ph.D.
 Statistics: 1

Chemistry (Graduate Representative): 1
Neuroscience: 1
Ecology and Environmental Sciences: 4 (1 as Grad. Representative)
University of Montana, Geosciences: 1

4. Undergraduate Advising:
Statistics option advisees: 4, 2009-.
5. Actuarial Science Advisor
Department of Mathematical Sciences, 2006-.
6. Member, Awards Committee
Department of Mathematical Sciences, 2007-.
7. Chair, Awards Committee
Department of Mathematical Sciences, 2010-.
8. Statistical Consulting Center Working Group
Department of Mathematical Sciences, 2009-.
9. Writing Project Supervisor, Department of Mathematical Sciences, 2008-2010
Coordinate student projects and presentations, verify final submissions of documents.
10. Member, Visiting Assistant Professor of Statistics Search Committee, 2006.
11. Course Supervisor, Stat 217: Intermediate Statistics, Fall 2010 - Spring 2011.
12. Mentor, Bobcat Mentor Program, 2010-.

Regional or National:

1. Editor
Interstat, 2010-.
2. Council of Sections representative (elected)
American Statistical Association Section on Statistical Graphics, 2010-2012.
3. Session Chair, Joint Statistical Meetings
Section on Statistics and the Environment, 2008.
Business and Economic Statistics Section, 2010.
4. Judge
American Statistical Association Section on Statistical Graphics and Section on Statistical Computing Student Paper Competition, 2010-2012.

Student Poster Presentations at the American Geophysical Union Fall Meeting, 2007.
5. President, 2006-2007.
Vice-President, 2005-2006.
Chapter Representative at Joint Statistical Meetings, 2006, 2007, and 2011.
Web-master, 2008-.
Montana Chapter of the American Statistical Association:
6. Chair and Organizer
Annual Meeting of the Montana Chapter of the American Statistical Association, Butte, MT, 2006.

7. Served as Reviewer for:

Journals:

American Statistician
Central European Journal of Geosciences
Environmental and Ecological Statistics
International Journal of Climatology

Books:

Handbook of the Philosophy of Sciences (Statistics)
The Ecology of Large Mammals in Central Yellowstone

Grants:

National Science Foundation (Geosciences)
 Montana State University Undergraduate Scholars Program

COURSES TAUGHT AT MSU (2004-2010)

Year	Semester	Course	Number	Enrollment
2004	Fall	Elementary Statistics	Stat 216	44
2004	Fall	Sampling	Stat 446	9
2005	Spring	Elementary Statistics	Stat 216	47
2005	Spring	Intro Applied Multivariate Analysis	Stat 437	5
2006	Spring	Liberal Arts Math: Quantitative Reasoning	Math 150	32
2006	Spring	Statistics for Scientists and Engineers	Stat 332	24
2006	Fall	Statistics for Scientists and Engineers	Stat 332	24
2006	Fall	Topics in Applied Statistics: Time Series	Stat 520	7
2007	Spring	Elementary Statistics	Stat 216	34
2007	Spring	Intro Applied Multivariate Analysis	Stat 437	8
2007	Fall	Statistics for Scientists and Engineers	Stat 332	33
2007	Fall	Nonparametric Statistics	Stat 431	14
2007	Fall	Statistical Consulting Seminar	Stat 510	6
2008	Spring	Introduction to Categorical Data Analysis	Stat 439	16
2008	Spring	Statistical Consulting Seminar	Stat 510	5
2008	Fall	Nonparametric Statistics	Stat 431	9
2008	Fall	Statistical Consulting Seminar	Stat 510	6
2008	Fall	Time Series Analysis	Stat 536	10
2008	Fall	Professional Paper and Project	Stat 575	1
2009	Spring	Intermediate Statistical Concepts	Stat 217	19
2009	Spring	Statistical Consulting Seminar	Stat 510	6
2009	Spring	Professional Paper and Project	Stat 575	5
2009	Fall	Statistical Consulting Seminar	Stat 510	5
2009	Fall	Professional Paper and Project	Stat 575	2
2010	Spring	Statistical Consulting Seminar	Stat 510	7
2010	Spring	Professional Paper and Project	Stat 575	6
2010	Fall	Introduction to Time Series Analysis	Stat 436	2
2010	Fall	Time Series Analysis	Stat 536	7

COURSES TAUGHT AT THE UNIVERSITY OF WYOMING (1996-2004)

Year	Semester	Course (Number)	Role	Enrollment
1996	Fall	Statistics for the Social Sciences (Stat 2070)	Lab GTA	60 (2 labs)
1997	Spring	Statistics for the Social Sciences (Stat 2070)	Lab GTA	60 (2 labs)
1997	Summer	Statistics for the Social Sciences (Stat 2070)	Lab GTA	50
1998	Fall	Statistics for the Health Sciences (Math/ Stat 2100)	Instructor	80
1999	Fall	Fundamentals of Statistics (Stat 2050)	Instructor (supervised 3 GTAs)	150
1999	Spring	Fundamentals of Statistics (Stat 2050)	Instructor (supervised 3 GTAs)	150
2000	Fall	Statistics and the World (Stat 2000)	Instructor	50
2000	Spring	Fundamentals of Statistics (Stat 2050)	Instructor (supervised 1 GTA)	90
2000	Summer	Statistics and the World (Stat 2000)	Instructor	15
2001	Fall	Statistics and the World (Stat 2000)	Instructor	60
2001	Spring	Fundamentals of Statistics (Stat 2050)	Lab GTA	60 (2 labs)
2001	Summer	Statistics and the World (Stat 2000)	Instructor	15
2002	Fall	Statistics and the World (Stat 2000)	Instructor	60
2002	Spring	Fundamentals of Statistics (Stat 2050)	Instructor (supervised 6 graduate and undergraduate assistants)	190
2002	Summer	Statistics and the World (Stat 2000)	Instructor	20
2003	Fall	Fundamentals of Statistics (Stat 2050)	Lab GTA	60 (3 labs)
2003	Spring	Statistical Methods (Stat 3050)	Instructor	50
2003	Summer	Statistics and the World (Stat 2000)	Instructor	20
2004	Spring	Basic Engineering Statistics (Stat 4220)	Instructor (w/ Dr. Robinson)	70
2004	Summer	Basic Engineering Statistics (Stat 4220)	Instructor	30