

Nathaniel A. Brunsell

CONTACT INFORMATION	Department of Geography University of Kansas 417 Lindley Hall 1475 Jayhawk Blvd. Lawrence, KS 66045-7613 USA Voice: (785) 864-2021 E-mail: brunsell@ku.edu
RESEARCH INTERESTS	Biometeorology, scaling processes from leaf to pixel, remote sensing of the surface energy balance, turbulence measurements using large aperture scintillometry and eddy covariance, ecological consequences of regional climate change, surface-precipitation feedbacks, implications of regional climate change on extreme value statistics, application of non-linear time series analysis to meteorological datasets
EDUCATION	Ph.D. , Biometeorology, 2003 Utah State University, Logan UT Dissertation: An examination of scale issues involved with remotely sensed data B.S. , Earth and Planetary Sciences, 1997 University of New Mexico, Albuquerque, NM Undergraduate Honors Thesis: The effect of topography on precipitation
PROFESSIONAL EXPERIENCE	Associate Professor , 2010 - Present Department of Geography - Atmospheric Sciences Program, University of Kansas, Lawrence, KS Visiting Scientist , 2010 - 2011 Biospheric Theory and Modelling Group (Sabbatical from KU) Max Planck Institute for Biogeochemistry, Jena, Germany Assistant Professor , 2004 - 2010 Department of Geography - Atmospheric Sciences Program, University of Kansas, Lawrence, KS Postdoctoral Research Associate , 2002 - 2004 Department of Civil and Environmental Engineering, Duke University, Durham, NC
AWARDS	Humboldt Fellowship for Experienced Researchers. Alexander von Humboldt Foundation. 2010-2011. Lecia Geosystems Award for best scientific paper in remote sensing: Second Place. American Society for Photogrammetry and Remote Sensing. 2003.

- Barve, N., A. J. Bonilla, J. Brandes, J. C. Brown, **N. Brunsell**, F. V. Cochran, R. Crosthwait, J. Gentry, L. M. Gerhart, T. Jackson, A. J. Kern, H. Owens, A. T. Peterson, A. S. Reed, J. Sobern, A. D. Sundberg, and L. M. Williams: 2011, Climate-change causation of mass mortality events in overwintering monarch butterflies (*Danaus plexippus*) and potential future winter distributions. *PLoS One*, in review.
- Mahecha, M. D., L. M. Fürsta, H. Lange, **N. A. Brunsell**, N. Gobron, M. Hauhs, M. Jung, M. Reichstein, B. Reu: 2011: Multiscale variability of FAPAR in relation to climate: towards a global characterization. *Journal of Climate*, in review.
- Arnold, K. A., J. M. Ham and **N. A. Brunsell**: 2011, Energy balance closure at eddy covariance towers in tallgrass prairie. *Agricultural and Forest Meteorology*, in review.

- [28] **Brunsell, N. A.** and M. C. Anderson: 2011, Characterizing the multi-scale spatial structure of remotely sensed evapotranspiration with information theory. *Biogeosciences*, in press.
- [27] Petrie†, M. D., **N. A. Brunsell** and J. B. Nippert: 2011, Climate change alters growing season flux dynamics in mesic grasslands. *Theoretical and Applied Climatology*, in press.
- [26] **Brunsell, N. A.**, J. M. Ham and K. A. Arnold: 2011, Validating remotely sensed land surface fluxes in heterogeneous terrain with large aperture scintillometry. *International Journal of Remote Sensing*, in press.
- [25] Petrie†, M. D. and **N. A. Brunsell**: 2011, The role of precipitation variability on the ecohydrology of grasslands. *Ecohydrology*, in press.
- [24] **Brunsell, N. A.**, S. Schymanski and A. Kleidon: 2011, Quantifying the thermodynamic entropy budget of the land surface: is this useful? *Earth System Dynamics*, doi:10.5194/esd-2-87-2011, 2, 87-103.
- [23] **Brunsell, N. A.**, D. B. Mechem and M. C. Anderson: 2011, Surface heterogeneity impacts on boundary layer dynamics via energy balance partitioning. *Atmospheric Chemistry and Physics*, doi:10.5194/acp-11-1-2011, 11, 3403-3416.
- [22] Nippert, J. B., T. Ocheltree, A. Skibbe, L. Kangas, J. M. Ham, K. Arnold, and **N. A. Brunsell**: 2011, Scaling above-ground growth by landscape position in mesic grassland. *Oecologia*, doi:10.1007/s00442-011-1948-6, 1-12.
- [21] **Brunsell, N. A.**: 2010, A multiscale information theory approach to assess spatial-temporal variability of daily precipitation. *Journal of Hydrology*, doi:j.jhydrol.2010.02.016, 385, 165-172.
- [20] **Brunsell, N. A.**, A. R. Jones†, T. L. Jackson and J. J. Feddema: 2010, Seasonal trends in air temperature and precipitation in IPCC AR4 GCM output for Kansas, USA: evaluation and implications. *International Journal of Climatology*, doi:10.1002/joc.1958, 30, 1178-1193.
- [19] Logan‡, K., **N. A. Brunsell**, A. R. Jones† and J. J. Feddema: 2010, Assessing spatiotemporal variability of drought in the U. S. Central Plains. *Journal of Arid Environments*, 74, 247-255, doi:10.1016/j.jaridenv.2009.08.008.
- [18] **Brunsell, N. A.**, P. P. B. Pontes, and R. A. C. Lamparelli: 2009, Remotely sensed phenology of coffee and its relationship to yield. *GIScience & Remote Sensing*, 46, doi:10.2747/1548-1603.46.3.1, 289-304.
- [17] Jones†, A. R. and **N. A. Brunsell**: 2009, A scaling analysis of soil moisture-precipitation interactions in a regional climate model. *Theoretical and Applied Climatology*, 98, doi:10.1007/s00704-009-0109-x, 221-235.

- [16] Jones[†], A. R. and **N. A. Brunsell**: 2009, Energy balance partitioning and net radiation as controls on soil moisture-precipitation feedbacks. *Earth Interactions*, 13, doi: 10.1175/2009EI270.1, 1-25.
- [15] Baum, K. A., J. M. Ham, **N. A. Brunsell**, and P. I. Coyne: 2008, Surface boundary layer of cattle feedlots: implications for emission measurement. *Agricultural and Forest Meteorology*, 148, 1882-1893.
- [14] Lash, R. R., **N. A. Brunsell** and A. T. Peterson: 2008, Spatiotemporal environmental triggers to Ebola and Marburg virus transmission. *GeoCarto International*, 23, 451-466.
- [13] **Brunsell, N. A.**, J. M. Ham and C. E. Owensby: 2008, Assessing the multi-resolution information content of remotely sensed variables and elevation for evapotranspiration in a tall-grass prairie environment. *Remote Sensing of Environment*, 112, 2977-2987.
- [12] Lyon, S., F. Dominguez, D. Gochis, **N. Brunsell**, C. Castro, F. Chow, D. Fuka, Y. Hong, P. Kucera, S. Nesbitt, Y. Fan, N. Salzmann, J. Schmidli, P. Snyder, A. Teuling, T. Twine, G. Lee, S. Levis, J. Lundquist, G. Salvucci, A. Sealy, T. Walter: 2008, Coupling terrestrial and atmospheric water dynamics to improve prediction in a changing environment. *Bulletin of the American Meteorological Society*, 89, 1275-1279.
- [11] Young, C. B. and **N. A. Brunsell**: 2008, Evaluating NEXRAD precipitation estimates for the Missouri River Basin: an analysis using daily raingage data. *Journal of Hydrologic Engineering*, 13, 549-553.
- [10] **Brunsell, N. A.** and C. B. Young: 2008, Land surface response to precipitation events using MODIS and NEXRAD data, *International Journal of Remote Sensing*, 29, 1965-1982.
- [9] **Brunsell, N. A.**: 2006, Characterization of land-surface precipitation feedback regimes with remote sensing. *Remote Sensing of Environment*, 100, 200-211.
- [-] French, A. N., F. Jacob, M. C. Anderson, W. P. Kustas, W. Timmermans, A. Gieske, B. Su, H. Su, M. F. McCabe, F. Li, J. Prueger, and **N. Brunsell**: 2005, Erratum: surface energy fluxes with the Advanced Thermal Emission and Reflection Radiometer (ASTER) at the Iowa SMACEX site (USA). *Remote Sensing of Environment*, 99, 471.
- [8] French, A. N., F. Jacob, M. C. Anderson, W. P. Kustas, W. Timmermans, A. Gieske, B. Su, H. Su, M. F. McCabe, F. Li, J. Prueger, and **N. Brunsell**: 2005, Surface energy fluxes with the Advanced Thermal Emission and Reflection Radiometer (ASTER) at the Iowa SMACEX site (USA). *Remote Sensing of Environment*, 99, 55-65.
- [7] White, M.A., **N. Brunsell**, and M.D. Schwartz: 2004, Vegetation phenology in global change studies. In *Phenology: An Integrative Environmental Science*. M.D. Schwartz, editor. Kluwer Academic Publishers, New York, NY. 453-466.
- [6] **Brunsell, N. A.** and R. R. Gillies: 2003, Length scale analysis of surface energy fluxes derived from remote sensing. *Journal of Hydrometeorology*, 4, 1212-1219.
- [5] **Brunsell, N. A.** and R. R. Gillies: 2003, Determination of scaling characteristics of AVHRR data with wavelets: Application to SGP97, *International Journal of Remote Sensing*, 24, 14, 2945-2957.
- [4] **Brunsell, N. A.** and R. R. Gillies: 2003, Scale issues in land-atmosphere interactions: implications for the remote sensing of the surface energy balance, *Agricultural and Forest Meteorology*, 117, 3-4, 203-221.
- [3] **Brunsell, N. A.** and R. R. Gillies: 2002, Incorporation of surface emissivity into a thermal atmospheric correction, *Photogrammetric Engineering and Remote Sensing*, 68, 12, 1263-1269.

- [2] **Brunsell, N.** and Gillies, R.: 2001, The effect of emissivity on evaporation, in *Remote Sensing and Hydrology 2000: Proceedings of a Symposium Held at Santa Fe, New Mexico, April 2000*. eds: M. Owe, K. Brubaker, J. Ritchie and A. Rango, 267, 276-280.
- [1] Menking, K. M., R. Y. Anderson, **N. A. Brunsell**, B. D. Allen, A. L. Ellwein, T. A. Loveland and S. W. Hostetler: 2000, Evaporation from groundwater discharge playas, Estancia Basin, central New Mexico. *Global and Planetary Change*, 25, 133-147.

Non-peer reviewed publications

- [4] Feddema, J. J., **N. A. Brunsell**, T. L. Jackson and A. R. Jones: 2008, Climate change in Kansas. Technical report for the Climate and Energy Project of the Land Institute. 10 pages.
- [3] Young, C. B., T. M. Brown[†], and **N. A. Brunsell**: 2008, Evaluation of NEXRAD operational precipitation estimates in Kansas. Technical report for the Kansas Department of Transportation. 108 pages.
- [2] **Brunsell, N. A.**: 2007, Book Review - Global Warming: Understanding the Forecast by David Archer, Palios, doi:10.2110/palo.2007.BR011.
- [1] Brown, J. C., M. Purcell, and N. Brunsell: 2007, Scale, Problems of. Encyclopedia of Environment and Society. ed. by Paul Robbins. SAGE Publications.

PRESENTATIONS

[†] indicates a graduate student, [‡] indicates an undergraduate student co-author

Invited Presentations

- [7] **Brunsell, N. A.**: 2011, A multi-scale perspective for sustainability: the challenge of synthesizing processes. University of Wyoming. Laramie, WY.
- [6] **Brunsell, N. A.**: 2010, Information theory approaches to scaling of land-atmosphere interactions. AGU Fall Meeting, 13-17 December. San Francisco, CA.
- [5] **Brunsell, N. A.**: 2010, Scaling land-atmosphere interactions using observational and modeling frameworks. Max Planck Institute for Biogeochemistry. Jena, Germany.
- [4] **Brunsell, N. A.**: 2009, A multi-scale approach to assessing the role of surface heterogeneity on land-atmosphere interactions. National Center for Atmospheric Research. Boulder, CO.
- [3] **Brunsell, N. A.**: 2008, Assessing the predictability of the water cycle: a multiscale framework. Seminars in Ecology and Evolutionary Biology, Kansas State University. Manhattan, KS.
- [2] **Brunsell, N. A.**: 2008, Trading carbon for water: assessing climate change in Kansas. KU Commons: University Lecture Series. University of Kansas. Lawrence, KS.
- [1] **Brunsell, N. A.**: 2007, Understanding water cycle dynamics for increased predictability: where are we? WyGIS Geospatial Forum. University of Wyoming. Laramie, WY.

**Conference Proceedings and Presentations
(Last five years only)**

- [28] **Brunsell, N. A.**, L. Miller and A. Kleidon: 2011, The role of dissipation on spatial and temporal structure of turbulent fields. EGU General Assembly, 4-8 Apr, Vienna, Austria.
- [27] Hirmas, D. R. and **N. A. Brunsell**: 2011, Application of wavelet and fractal techniques to the analysis to soil structure and color. EGU General Assembly, 4-8 Apr, Vienna, Austria.

- [26] **N. A. Brunsell**, S. Schymanski and A. Kleidon: 2010, The role of vegetation fraction on the thermodynamics of the land surface. AGU Fall Meeting, 13-17 Dec, San Francisco, CA.
- [25] Cochran[†], F. V., **N. A. Brunsell**, and A. T. Quick[‡]: 2010, Comparing surface and mid-troposphere CO_2 concentration and fluxes from central U.S. grasslands. AGU Fall Meeting, 13-17 Dec, San Francisco, CA.
- [24] **Brunsell, N. A.** and M. C. Anderson: 2010, Characterization of the multi-scale spatial structure of land atmosphere interactions. ESA-iLEAPS-EGU Joint Conference on Earth Observation for Land-Atmosphere Interaction Science, 3-5 Nov, Frascati (Rome), Italy.
- [23] Hirmas, D. R. and **N.A. Brunsell**, and B.L. Allen: 2010, Soil morphological applications of wavelet and fractal analyses. ASA, CSSA, and SSSA International Annual Meetings, 31 Oct - 4 Nov, Long Beach, CA.
- [22] Cochran[†], F. V., **N. A. Brunsell**, and A. T. Quick[‡]: 2010, Assessing surface and mid-troposphere CO_2 concentration and fluxes from grasslands in northeastern Kansas. General Land Project Open Meeting, 15-17 Oct, Phoenix, AZ.
- [21] **Brunsell, N. A.** and D. B. Mechem: 2010, Assessing the role of surface heterogeneity on energy balance partitioning and land-atmosphere feedbacks. 29th Conference on Agricultural and Forest Meteorology, 2-6 Aug, Keystone, CO.
- [20] Lin[†], P. L., and **N. A. Brunsell**: 2010, Implications of altering land use for biofuel production on carbon and water cycling in the central US. 29th Conference on Agricultural and Forest Meteorology, 2-6 Aug, Keystone, CO.
- [19] Huber, D., D. B. Mechem, and **N. A. Brunsell**: 2010, Influence of Irrigation on Mid-Summer Convective Rainfall in the Great Plains. 29th Conference on Agricultural and Forest Meteorology, 2-6 Aug, Keystone, CO.
- [18] Quick[‡], A., **N. A. Brunsell** and T. L. Buck[†]: 2010, Variations in land cover conditions on scalar similarity and correlation of scalar transport by turbulent eddies. 29th Conference on Agricultural and Forest Meteorology, 2-6 Aug, Keystone, CO.
- [17] Wilson[‡], C. and **N. A. Brunsell**: 2010, Seasonal dynamics of the thermodynamic entropy budget for a heterogeneous grassland. 29th Conference on Agricultural and Forest Meteorology, 2-6 Aug, Keystone, CO.
- [16] Buck[†], T. L. and **N. A. Brunsell**: 2010, The role of land cover and precipitation variability on carbon and water fluxes in central US grasslands. 29th Conference on Agricultural and Forest Meteorology, 2-6 Aug, Keystone, CO.
- [15] **Brunsell, N. A.**: 2009, A multi-scale information theory approach to assess spatial-temporal variability in daily precipitation and temperature. AGU Fall Meeting, 14-18 December, San Francisco, CA.
- [14] Petrie[†], M. D. and **N. A. Brunsell**: 2009, Nonlinear Ecosystem Responses to Variable Precipitation Timing and Magnitude Using a Low-dimensional Modeling Framework. AGU Fall Meeting, 14-18 December, San Francisco, CA.
- [13] **Brunsell, N. A.**: 2009, Multi-scale analysis of surface-precipitation feedbacks in the central United States. AGU Joint Assembly, 23-27 May, Toronto, CA.
- [12] Maksimowicz[‡], M., **N. A. Brunsell**, and J. M. Ham: 2009, Spatial and temporal alterations on carbon and water cycles due to grazing. AGU Joint Assembly, 23-27 May, Toronto, CA.
- [11] Ham, J., J. Nippert, J. Blair, K. Arnold, and **N. A. Brunsell**: 2008, Sensor networks for measuring spatial variability in the landscape energy balance. 2008 GSA-SSSA-ASA-CSSA-GCAGS-HGS Joint Annual Meeting, 5-9 October, Houston, TX.
- [10] **Brunsell, N. A.**, J. M. Ham and C. B. Young: 2008, A wavelet based information theory approach to assess scaling of evapotranspiration. CUAHSI Biennial Colloquium on Hydrologic Science and Engineering, 14-16 July, Boulder, CO.

- [9] **Brunsell, N. A.**, A. P. Barros and T. A. Rahn: 2008, Determination of the areal averaged fluxes in CLASIC: a synthesis of methodologies. 28th Conference on Agricultural and Forest Meteorology, 28 Apr-2 May, Orlando, FL.
- [8] Buck‡, T. A. and **N. A. Brunsell**: 2008, Soil moisture controls on carbon and water cycling. 28th Conference on Agricultural and Forest Meteorology, 28 Apr-2 May, Orlando, FL.
- [7] Ham, J. M., **N. A. Brunsell** and K. B. Arnold†: 2008, Effect of landscape position on carbon and water fluxes from tallgrass prairie. 28th Conference on Agricultural and Forest Meteorology, 28 Apr-2 May, Orlando, FL.
- [6] **Brunsell, N. A.**, T. L. Buck‡, K. Arnold† and J. M. Ham: 2007, Variation in scintillometer and eddy tower footprints and implications for the validation of satellite derived energy fluxes in heterogeneous terrain. AGU Fall Meeting, 10-14 Dec, San Francisco, CA.
- [5] Jones†, A. R. and **N. A. Brunsell**: 2007, Investigation of the impacts of spatial variability of soil moisture on convective precipitation in the central plains. AGU Fall Meeting, 10-14 Dec, San Francisco, CA.
- [4] Arnold†, K., J. Ham and **N. Brunsell**: 2007, Energy balance closure when using eddy covariance: How good is good enough? American Society of Agronomy, 4-8 Nov, New Orleans, LA.
- [3] Ham, J., **N. Brunsell**, K. Arnold, and K. Baum: 2007, Effect of sampling frequency and integration interval on eddy covariance measurements of heat, water vapor, and CO2 fluxes. American Society of Agronomy, 4-8 Nov, New Orleans, LA.
- [2] **Brunsell, N. A.** and J. M. Ham: 2007, Scaling evapotranspiration in prairie ecosystems: remote sensing, modeling and field measurements. American Ecological Engineering Society, 21-25 May, Manhattan, KS.
- [1] **Brunsell, N. A.** and A. R. Jones†: 2007, Determining the spatial variability of water and carbon cycling, First Annual Kansas EPSCoR Ecoforecasting Meeting, 21 Apr, Manhattan, KS.

FUNDING

		Currently Funded Projects
2011-2013	Assessing regional scale variability in extreme value statistics under altered climate scenarios. DOE. \$510,554. (PI).	
2011-2012	Scaling ecosystem function: Novel approaches from MaxEnt and Multiresolution. NSF. Total: \$135,803. (Co-PI, PI: P. Stoy MSU).	
2010-2011	Changes in temporal scaling characteristics of water and carbon dynamics due to precipitation events. NSF, Subcontract to Konza Prairie Long Term Ecological Station. \$25,000. (PI).	
2010-2013	System for Integrated Modeling of Metropolitan Extreme Heat Risk (SIMMER). NASA. KU Funding: \$367,116. (CO-I, PI: O. Wilhelmi, NCAR is lead institution).	
2009-2014	Understanding Climate Change in the Great Plains: Source, Impact, and Mitigation. NSF EPSCoR. KU Climate Group Funding: \$1,086,575. (Co-I, KU PI: J. Feddema).	
2009-2012	RET: Shaping Inquiry from Feedstock to Tailpipe (SHIFT). NSF. \$499,477 (Co-I, PI: S. Williams).	
2008-2011	KU biofuels 'feedstock to tailpipe' initiative. Transportation Research Institute. \$516,814. (Co-I, PI: S. Williams).	

Currently Funded Projects: Collaborative Role	
2008-2013	IGERT: C-CHANGE: Climate Change, Humans, and Nature in the Global Environment. NSF. \$3,200,000. (Teaching Faculty, PI: Joane Nagel)
2009-2012	Collaborative Research: EPSCoR RII Track 2 Oklahoma and Kansas: A cyberCommons for Ecological Forecasting. NSF EPSCoR. \$2,999,997 (Collaborator, KU PI: L. Krishtalka).

Previously Funded Projects	
2006-2009	Understanding and forecasting ecological change: causes, trajectories and consequences of environmental change in the Central Plains. NSF EPSCoR. KU funding: \$3,599,997. (Collaborator, KU PI: L. Krishtalka).
2008	Assessing climate change in Kansas. The Land Institute. \$36,012. (PI).
2006-2007	Water and heat fluxes in a prairie ecosystem assessed using scintillometry and physically based modeling. KUCR General Research Fund. \$7,015.00.
2005-2006	Assessing multi-scale spatial-temporal variability of surface energy fluxes using scintillometry and remote sensing. KUCR New Faculty General Research Fund. \$7,914.56.

SERVICE

		Editorial Duties
Editorial board	Agricultural and Forest Meteorology	2008-Present
Associate editor	International Journal of Agriculture Sciences	2010-Present

Scientific Committees		
Member	<i>Agricultural and Forest Meteorology Scientific and Technological Activities Commission (STAC)</i> for the American Meteorological Society	2007-2013
Member	National Ecological Observatory Network (NEON) Domain Science and Education Coordination Committee (DSECC) for Domain 6.	2009-2011
Representative	KU representative to the Consortium of Universities for the Advancement of Hydrologic Science, Inc. CUAHSI (Alternate)	2008-Present
Member	Kansas Mesonet Steering Committee	2008-Present
Member	Science Steering Committee for EPSCoR Track II Project, joint between Kansas and Oklahoma	2009-Present
Member	DOE Scientific Discovery through Advanced Computing (SCIDAC) proposal review panel	2011
Member	NSF IGERT Pre-proposal review panel	2010

Conference Chair and Session Chair		
Chair	29th conference on Agricultural and Forest Meteorology, 1-6 August 2010, Keystone, CO.	2009-2010
Session chair	“Scaling in biogeosciences and Earth system science” at the EGU Joint Assembly, 4-8 Apr, Vienna, Austria.	2011
Session chair	“Scaling issues in land-atmosphere interactions” at the 29th Conference on Agricultural and Forest Meteorology, 1-6 August, Keystone, CO	2010

Session chair	“Biosphere-atmosphere interactions: empirical, modeling, and simulation studies” at the AGU Joint Assembly, 23-27 May 2009, Toronto, CA.	2009
Session chair	“Areal flux averaging measurements and methods” at the 28th Conference on Agricultural and Forest Meteorology, 28 Apr-2 May 2008, Orlando, FL.	2008

Teacher Mentoring

Mentor	Research Experience for Teachers (Hosted 1 high school and 1 junior college teacher for the Summer)	2010
Mentor	Middle School Science Educators Research Experience (Hosted 2 middle school teachers for the Summer)	2008

University

Member	Undergraduate Research Awards	2010-Present
Member	Research Committee of the University Honors Program	2006-Present
Member	Search committee (Kansas Geological Survey, Hydrologist)	2008-2009

College

Member	College Academic Misconduct Committee	2006-2009
Member	Faculty search committee (Ecology and Evolutionary Biology, Ecological modeler)	2006-2008

Department

Member	Faculty affairs committee	2008-Present
Member	Graduate student affairs committee	2005-2008
Member	Faculty search committee (Geography, Soils/Geomorphologist)	2007-2008
Member	Faculty search committee (Geography, Atmospheric scientist)	2006-2007
Member	Faculty search committee (Geography, Glaciologist)	2005-2006
Member	Undergraduate studies committee	2004-2005

TEACHING
EXPERIENCE

Course	Title	Time
ATMO 731	Atmospheric Turbulence	Sp 2009, 2010
ATMO/GEOG 521	Microclimatology	Sp 2006, 2008-Present
ATMO 680	Physical Meteorology	F (2004-2006, 2009)
ATMO 642	Remote Sensing of the Atmosphere	Sp (2005-Present)
EVRN 720	IGERT, Climate and Borders	F (2009)
GEOG 531/731	Land-Atmosphere Interactions	Sp 2005, F 2007
GEOG 104	Introduction to Physical Geography	Sp 2007, F 2007
HNRS 190	State of Fear: Assessing Climate Change	F 2006
DUKE TIP	State of Fear: Assessing Climate Change (Weekend course for junior high school students at the University of Kansas)	2007

ADVISING

Graduate Students

† indicates departmental honors

Student	Degree	Date	Role
Y. Zheng	PhD Geography	Current	Advisor
P. L. Lin	PhD Geography	Current	Advisor
F. V. Cochran	MA Geography	Current	Advisor
D. Huber	MS Atmospheric Sciences	Current	Member
A. Reed	PhD Ecology and Evolutionary Biology	Current	Member
T. L. Buck	MS Atmospheric Sciences	2010	Advisor
M. Petrie†	MA Geography	2010	Advisor
A. R. Jones†	MA Geography	2008	Advisor
T. Brown	MS Civil, Environmental and Architectural Engineering	2006	Member

Graduate Student Honors

A. R. Jones - **2009 College Outstanding Thesis Award**: “Impacts of soil moisture variability on convective precipitation in the Central Plains through land-atmosphere feedbacks”

Undergraduate Research Advisor

† indicates that research resulted in a peer-reviewed publication

‡ indicates presentation at an international/national conference

A. Quick‡ (2010), C. Wilson‡ (2010), M. Allen (2009-2010), N. Parks (2009), M. Maksimowicz‡ (2008-2009), T. Buck‡ (2008), K. Logan† (2008; **Honors**), C. Painter (2007-2008), K. Zimmerman (2006; **McNair Scholars Program**)

PROFESSIONAL ORGANIZATIONS

American Geophysical Union
 American Meteorological Society
 European Geosciences Union

REVIEWER

Proposals

Department of Energy, National Science Foundation

Manuscript Reviewer

Agricultural and Forest Meteorology, Applied Geography, Earth Research Letters, Ecosystems, GeoForum, Geophysical Research Letters, International Journal of Climatology, International Journal of Remote Sensing, IEEE Transactions on Geoscience and Remote Sensing, Journal of the American Water Resources Association, Journal of Applied Meteorology and Climatology, Journal of Arid Environments, Journal of Hydrometeorology, Journal of Soil and Water Conservation, Remote Sensing of Environment, Theoretical and Applied Climatology, Water Resources Research