Highlights: Geography

- BA, BGS, BS, MA degrees in Geography (Lawrence campus)
- Added a new MS degree (in 2009) to complement our existing BS degree in Atmospheric Science (Lawrence campus), the only such program in the State
- PhD program (Lawrence campus) is ranked 13th out of 49 program by the NRC
- 6 faculty have affiliations with Area Studies programs on the Lawrence campus
- 6 faculty have received Kemper Teaching Fellowships
- Other teaching awards include Michael J. Young Excellence in Advising Award, John C. Wright Graduate Mentor Award, Byron A. Alexander Graduate Mentor Award, and Chancellor’s Club Teaching Award
- For 2007-2009 faculty averaged 2.8 articles per year and approximately $115,000 per year in grant funding
- Number of Geography majors has doubled between 1999 and 2008
- 100% of Geography undergraduate alumni responding to our survey indicated that they “would advise others to come to KU for education in Geography”
- For three years in a row (2007-2009), one of our MA students received the CLAS Outstanding Thesis award
- Two PhD students, Henry Way (2006) and Josh Long (2008), received Carlin Graduate Teaching Assistant awards (only two are awarded each year in a university-wide competition)
- Currently revising our BA and BS Geography degrees so that they emphasize changes in the discipline (e.g., the growth of GIS) and include a capstone course
- Provides a production cartographic facility, and supports the mission of CReSIS, KARS and all the Area Studies programs.
- One faculty member is a Guggenhein Fellow, has won the Higuchi Research Achievement Award (KU’s highest research award), the John Brinckerhoff Jackson Prize of the AAG, and is the recipient of two Globe Book Award for Public Understanding of Geography by the AAG
- One faculty member is the serving president of the American Geographical Society, is an elected fellow of the AAAS, and the recipient of the AAG GIS specialty group Robert T. Aangeenbrug Distinguished Career Award
- One faculty member has received the Carl O. Sauer Distinguished Scholar Award for outstanding Latin American scholarship by the Conference of Latin Americanist Geographers and the Robert McC. Netting Award, from the Cultural and Political Ecology Specialty Group of the AAG
- One faculty member was a contributing author on several of the Inter Governmental Panel on Climate Change publications for which the IPCC shared the 2007 Nobel Peace Prize
- One faculty member who held the Earl and Sophia Shaw Professorship in the Dept. of
Geography, Florida State University, and was the recipient of the Helen and John Best Fellowship, American Geographical Society Library, Milwaukee

- One faculty member received a Humboldt fellowship for sabbatical research in Germany
DEPARTMENT OF GEOGRAPHY
UNIVERSITY OF KANSAS

SELF STUDY FOR 2010 PROGRAM REVIEW
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INTRODUCTION

The Geography Department at the University of Kansas is a dynamic department unmatched within the University in its academic breadth. Teaching and research within the department cover topics ranging from studies of atmospheric and Earth surface processes to understanding human processes and human interactions with their environment from historical and spatial perspectives. This breadth brings both great opportunities and challenges with respect to the research and teaching programs offered by the department, and it can be seen as an excellent working example of how interdisciplinary scholarship can be applied in a modern academic setting. It is clear that much of the work we do has significant impacts on a wide range of teaching and research activities both within the University, and particularly in the case of research activities, extending well beyond the University to state, national and international levels.

SCOPE OF THE STUDY

In many respects the breadth of our department is not only unique within the University of Kansas, but it also makes it difficult to produce a direct comparison to peer institutions or similar geography programs. Very few geography departments incorporate atmospheric sciences as a degree program, only Indiana University and Ohio State University offer atmospheric science degrees. Other departments offer certificates or concentrations in atmospheric sciences (e.g. University of Georgia, Michigan State University) or concentrate on climate studies (e.g. University of Delaware), but it is difficult to make direct comparisons to any of these units as peer institutions or departments. Such potential peer institutions as the University of Oklahoma, the University of Nebraska and the University of Colorado offer degrees in geography and atmospheric sciences, but in separate departments and not at all degree levels. For these reasons, and because there is no national source of information that provides data for factual comparisons, the primary focus of this self study is on our performance as a unit within the University of Kansas and we hope that some outside perspective will be added from the external review committee. Some generalized information on peer institutions is provided by the University and will be listed in various appendices. Sources of information are listed in Appendix A.

BACKGROUND

The geography department has had significant success in both teaching a research over the last decade. The quality of our teaching program is excellent as exemplified by the fact that almost one third of our faculty (6 faculty members) have received Kemper Teaching Fellow Awards in the last 10 years. We have also received one College of Liberal Arts and Sciences (CLAS) Michael J. Young Excellence in Advising Award, the John C. Wright Graduate Mentor award, the Byron A. Alexander Graduate mentor Award, and one Chancellor’s Club Teaching Award (life time recognition for teaching). Our research program is also strong, perhaps best exemplified by our recent success in garnering outside funding. Despite the fact that half of our faculty work on topics that would fall under the typically less well funded social sciences and humanities research areas, our research expenditures per FTE for 2008 ($202,336/FTE) is ranked third out of the eight units making up the Natural Sciences and Mathematics Division in the CLAS, and fifth out of 37 total units in CLAS (data provided in Appendix B). Individual awards and recognition related to excellence in research include the following:
one faculty member is a Guggenheim Fellow, has won the Higuchi Research Achievement Award (KU’s highest research award), the John Brinckerhoff Jackson Prize of the AAG, and is the recipient of two Globe Book Award for Public Understanding of Geography by the AAG;

one faculty member is the serving president of the American Geographical Society, is an elected fellow of the AAAS, and the recipient of the AAG GIS specialty group Robert T. Aangenbrug Distinguished Career Award;

one faculty member has received the Carl O. Sauer Distinguished Scholar Award for outstanding Latin American scholarship by the Conference of Latin Americanist Geographers and the Robert McC. Netting Award, from the Cultural and Political Ecology Specialty Group of the AAG;

one faculty member was a contributing author on several of the Inter Governmental Panel on Climate Change publications for which the IPCC shared the 2007 Nobel Peace Prize;

one faculty member received the Provost’s Award for Leadership in International Education, and is the recipient of the Kwadwo Konadu Agyemang Distinguished Scholar Award of the African Specialty group of the AAG;

one faculty member who held the Earl and Sophia Shaw Professorship in the Dept. of Geography, Florida State University, and was the recipient of the Helen and John Best Fellowship, American Geographical Society Library, Milwaukee;

one faculty member who is a fellow of the Geological Society of America;

one faculty member received a Humbolt fellowship for sabbatical research in Germany. There have been numerous other individual achievements. However, perhaps the best indicator of our collective success in teaching and research is that for the last three years in a row (2007-2009) one of our graduate students has received the CLAS “outstanding thesis/dissertation award.”

The department’s traditional strengths in research and teaching are based on 1) a strong regional studies program, evidenced by our heavy involvement in the title IX funded regional studies and global studies programs, as well as providing support to the Environmental Studies program; 2) a strong tradition in cartography, geographic analysis and remote sensing, as evidenced by our connections to the Kansas Applied Remote Sensing Center (KARS) and the Center for Remote Sensing of Ice Sheets (CReSIS); and 3) a traditionally strong geomorphology, soil and vegetation sciences program that was augmented with the incorporation of the Atmospheric Sciences Program from Physics and Astronomy in 2003; creating a research program with a strong emphasis on climate change processes and land surface-climate interactions. In broad based terms the department research and teaching activities can be divided into three broad categories (Figure 1):

- **Human and regional geography**, the study of spatial characteristics of social, cultural and economic processes;
- **GIScience/Geographic Techniques**, the development and use of Geographic Information Science/Systems and Remote Sensing techniques and the study of cartographic symbolization, and visualization;
- **Physical Geography and Atmospheric Sciences**, the study of physical processes shaping the Earth’s surface, weather and climate.
Figure 1 illustrates some of the research and teaching topics covered within each of these groups, while overlapping areas illustrate how these areas of specialization interact within our academic setting, which has resulted in a wide range of integrated research activities.

Faculty make up

Some departmental history is relevant to understanding the present dynamics and state of faculty make-up in the department. The Department of Geography was formally formed in 1946 and renamed “Department of Geography and Meteorology” in the late 1960s. In 1985 the Meteorology component of the program moved to the Department
of Physics and Astronomy, and the Geography Department was renamed the “Department of Geography.” In 2003, the two remaining faculty and a lecturer comprising the Atmospheric Sciences Program moved back to the Geography Department. At present, the faculty is comprised of 22 people (19.47 Full Time Equivalent positions (FTE)) some of whom have split appointments with other units on campus (data from Appendix C, Page 1). Split appointments include two shared with Environmental Studies, one with African Studies and one with the Kansas Applied Remote Sensing Center housed in the Kansas Biological Survey. In the last decade, FTE positions have increased from a low of 13.3 FTE in 2003 to the current high of 19.47 FTE (figure 1). A significant part of this increase in FTE is linked to the inclusion of the Atmospheric Sciences program and through hires associated with the regional studies programs as part of the Title VI grants for these centers. Table 1 lists the current faculty members and their respective specializations; also indicated is Margaret Pearce who will be joining the department next year.

Although the net FTE has increased relatively little since the inclusion of the Atmospheric Science Program, there have been a number of changes in the faculty make up of the Department.

<table>
<thead>
<tr>
<th>Human/Regional</th>
<th>Techniques</th>
<th>Physical/ATMO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brown*† (EVRN)</td>
<td>Dobson</td>
<td>Braaten (Atmo)</td>
</tr>
<tr>
<td>Cheong (CEAS)</td>
<td>Egbert (KBS)*</td>
<td>Brunsell (Atmo)</td>
</tr>
<tr>
<td>Herlihy*</td>
<td>Li</td>
<td>Feddema</td>
</tr>
<tr>
<td>J Johnson</td>
<td>McCleary</td>
<td>Hirmas</td>
</tr>
<tr>
<td>Myers (AAAS)*</td>
<td>Slocum</td>
<td>W Johnson†</td>
</tr>
<tr>
<td>O’Lear (REES)*</td>
<td>Pearce (new hire)</td>
<td>Mechem† (Atmo)</td>
</tr>
<tr>
<td>Shortridge*</td>
<td></td>
<td>Tucker (Atmo)</td>
</tr>
<tr>
<td>Warf</td>
<td></td>
<td>Van der Veen</td>
</tr>
<tr>
<td>Woods</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 1: Faculty grouped by specialization - some of these are not well defined, as people have multiple roles within the unit. Split appointments are indicated by the second unit, as are the atmospheric science core faculty. EVRN – Environmental Studies; CEAS - Center for East Asian Studies; AAAS - African and African American Studies; REES - Russian and East European Studies Center; KBS - Kansas Biological Survey and the Kansas Applied Remote Sensing Center (KARS). * Indicates Kemper Teaching Fellows, † indicates Advising Award Winners.

Retirements/departures since 2003 include human geographers (Dienes and B. Shortridge), physical geographers (Sorenson, Terwilliger) and one techniques/physical position (Price). New hires included human geographers O’Lear, Cheong, J. Johnson, Warf and Woods, physical geographers/atmospheric scientists Brunsell, Van der Veen, Mechem and Hirmas, and next year we will be adding Pearce in the human/techniques area. All five of the human geography hires have been the result of needs in other programs at the University, particularly the Area Studies and Environmental Studies programs. Although these have all proven excellent hires, there is a concern that the research and teaching direction of the Department is being driven by needs across the University rather than the perceived needs by the department itself and its long term goals and vision.

A second concern with our current faculty make up is that a significant number of the faculty have taken on administrative duties in various capacities. Specifically Myers is the director of the African Studies Center, Brown is the director of Environmental Studies, Egbert has taken over the lead role in KARS, Braaten is managing the Center for Remote Sensing of Ice
Sheets (CReSIS), Herlihy is Associate Director of Latin American Studies, McCleary works half time in the Advising Center as well one person filling the department chair position. Cumulatively, these administrative positions have significantly reduced our ability to provide the variety and depth of courses we expect based on the number of FTE positions, and it also has had a significant impact on research productivity and graduate mentoring. Despite this relatively heavy administrative workload across the unit, our average contact hours and credit hour production are very similar compared with peer institutions (Appendix C, pg 6-7)

Question: We have been repeatedly told that opportunity hires and joint hires should not affect our overall hiring plan. Yet the hires of the last eight years have resulted in a significant reorganization that has not followed the research needs and desires of the department as outlined in our long term plans and vision. How can we ensure that our future hires will be driven by the needs of the department rather than the needs of other units on campus?

DEPARTMENT MISSION AND VISION.

In 2003 when the Atmospheric Sciences Program returned to the geography department, the faculty performed an in-depth self analysis, reviewing all aspects of both programs. From this analysis we developed both a mission and vision statement that we have followed as best as possible since that period.

Department of Geography Mission Statement

Geography as an academic discipline studies the spatial dimensions of, and links between, culture, society and environmental processes. At the University of Kansas our main goal is to advance the understanding of human actions through cultural and social processes, and to understand the interaction of human development with the physical environment in the past, present and future. Within this broad goal, the KU Geography Department focuses on research and education related to global climate change associated with land cover change and glaciology; documenting global environmental change through the use of Remote Sensing and Geographic data assimilation techniques; improved understanding of Regional Geography and human development in North America, Africa, Asia, Europe and Latin America; and to improve the use of Geographical Information Science (GIScience) techniques to view, represent, understand, and communicate data and knowledge over a wide range of spatial scales. We endeavor to meet these goals through teaching, research and outreach to the larger community.

The KU Geography Department has a strong reputation for teaching excellence as is reflected by the six Kemper teaching awards held by the faculty. Our teaching program reflects the departmental foci, with a B.A. degree emphasizing cultural and regional geography, and B.S. degrees in Geography and Atmospheric Science emphasizing the study of atmospheric and surface processes. We view graduate studies as the interface between research and education where we develop students’ research and teaching skills. Combining these activities with a thorough grounding in basic geographic and spatial analysis principles within a cross-disciplinary framework that bridges the humanities, social sciences, and physical sciences, we aim to develop future leaders for society.

Although research enquiry is largely driven through individual faculty research programs, one
Our vision statement is largely reflective of the research priorities identified at the time the statement was created. However, given the significant turnover in FTE over the last few years, and subsequent changes in the proportion of FTE in each area of research concentration, this statement will be updated as part of this review process.

Department of Geography Vision Statement

The Geography Department at the University of Kansas is striving to be at the forefront of developing and using spatial methodologies to understand the dynamic relationships among humans and their environments. Within the realm of global climate change, we are taking, and will continue to develop, a leadership role in the study of ice-sheet dynamics and land cover change impacts on climate. In the realm of Environmental Change, we will focus on the use of GIScience techniques to document and study the role of socio/economic processes that lead to environmental change. We also continue to build on our and KU’s strength in cultural and regional geography by developing cross-cutting tools for studying culture and society, and how human development impacts natural processes. We propose to further strengthen our Remote Sensing and GIScience focus by developing new methods that document and provide insight to the human and natural processes as they apply to these research areas.

These statements provide a good general guideline for the department’s future direction of research and teaching. However, in reality individuals perform this work, and both research and teaching methods vary significantly between individuals. While teaching loads are the same for all faculty at 4 courses/year, publication rates, graduate advising loads and access to, and success in obtaining extramural funding vary widely. To some extent this differential allocation of work effort is a natural consequence of the variable expectations, work methods and funding access by the participants within each of the areas of research concentration. For example, most of the human geographers use methods similar to typical humanities or social sciences programs, often resulting in book publications, single authored journal articles and research programs with restricted access to extra-mural funding. In contrast, the physical geographers and atmospheric scientists more closely follow the extramurally funded multi-authored journal publication work format common among the physical/natural science disciplines, or in the case of the geographic information sciences similar to engineering programs. These differences are expected within
Geography departments, but they can occasionally lead to issues within the larger University settings where, for example, expectations may differ depending on whether the department is seen as part of the natural or social science divisions and the accompanying research and teaching expectations.

**RESEARCH**

**Overview**

The inherently diverse nature of enquiry and use of research methodologies extending from qualitative methods in the humanities to numerical simulation in the physical sciences lead to quite different work practices and research objectives by different faculty members within the department. These differential modes of productivity mostly hold true by sub-discipline, although individual faculty work often crosses these generalized boundaries. Typical research and grant productivity statistics by group are provided in Table 2 to illustrate the differences between the different work groups. Much of the graduate advising load has traditionally fallen on the human geography side of the program in large part because of historical reputation of the department (partly established in the absence of the Atmospheric Sciences Program), and because until last year the department only offered a Master of Arts degree that typically draws more humanities and social science oriented graduate applicants. With the development of new and proposed Master of Science programs, we hope to draw new graduates into the techniques and sciences oriented components of the program. In contrast, most of the extra-mural funding originates from the physical and techniques components of our program. Although not reported in Table 2, the atmospheric sciences faculty carry a heavier undergraduate advising load due to high student/FTE ratios. These faculty have had little opportunity for graduate advising because, until this year, there have been no graduate degrees in atmospheric science.

<table>
<thead>
<tr>
<th>Area</th>
<th># Individuals (By rank)</th>
<th>Publications Books (edited) / Articles 1st author (co-authored)</th>
<th>Advisees M.A./Ph.D. advisees</th>
<th>Grants All faculty including affiliates</th>
<th>Grants core faculty $ (# faculty receiving)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Human</td>
<td>4 / 3 / 2</td>
<td>3(5) / 61(24)</td>
<td>22.5 / 27</td>
<td>$ 2,532,239</td>
<td>$ 437,868 (4)</td>
</tr>
<tr>
<td>Techniques</td>
<td>1* / 3 / 1</td>
<td>1(0) / 8(20)</td>
<td>6.5 / 6</td>
<td>$1,816,526</td>
<td>$1,816,526 (5-6)</td>
</tr>
<tr>
<td>Physical/ATMO</td>
<td>4 / 1 / 1-3†</td>
<td>0(0) / 22(44)</td>
<td>16 / 9</td>
<td>$ 4,937,738</td>
<td>$ 4,937,738 (6)</td>
</tr>
<tr>
<td>Total</td>
<td>20-22</td>
<td>3(5) / 91(88)</td>
<td>42 / 45</td>
<td>$9,286,503</td>
<td>$7,192,132</td>
</tr>
<tr>
<td>Total/person/yr</td>
<td>21 assumed</td>
<td>0.05(0.08) / 1.44(1.4)</td>
<td>0.66 / 0.71</td>
<td>$114,160</td>
<td></td>
</tr>
</tbody>
</table>

Table 2: Comparison of workloads across the major areas of research concentration in the Department of Geography. Statistics are cumulative from 2007-2009. # Individuals number of faculty members working in the area of specialization by rank. † Indicates that during the period two assistant professor positions were added. Publications represent the number of major publications in the form of books and (edited books) and 1st authored (co-authored) peer reviewed articles compiled from the cumulative 3 year annual review materials provided by faculty; Advisees represent self reported M.A./Ph.D. advisees by faculty from their cumulative 3 year annual review materials (0.5 assigned for co-advising); Grants includes funding from all full time and affiliate faculty, Grants Core faculty includes only grant totals assigned to core department faculty (Table 1). * Kevin Price is not included in the publication statistics resulting in a slight underrepresentation of total publications, he left after 2008.
In terms of research productivity (Table 2), based on the self reported annual evaluations, the average faculty member produces 2.8 articles per year (about half first authored), produces, on average, 1 book every 8 years (slightly more than half as edited volumes), graduates 1.5 MA/PhD students, and brings in $114,150/year of grant funding for the 2007-2009 period. While the number of articles produced is roughly the same across all sub-disciplines, other work is not as evenly distributed. For example, all but one of the books is associated with the human/sub-discipline, while over 90% of the grant funding originates the physical and techniques sub-disciplines of the program.

**Publications**

Although we cannot present the data in concrete forms, publications rates have increased significantly across all three sub discipline areas in the last decade. While this appears to be a general trend in the discipline of Geography, it is noteworthy that our standards for evaluation of tenure (Appendix D) have been changed recently to move from a standard of 1 major publication or equivalent per year to 1 to 2 major publications per year. With an average department rate of 2.8 articles/year and a book every 8 years, department output is significantly higher than these traditional standards. For comparison, the University of Colorado Department of Geography (ranked #12 in the 1995 NRC Geography rankings compared to #26 for KU) has research expectations as follows (http://www.colorado.edu/geography/documents/differentialworkload.doc):

```
1.2. Research and Publication.

Grant activity as well as publications are considered. Both quantity and significance are assessed. Criteria will vary among the various subfields within geography to accommodate differences in publication and funding patterns within geography. For most faculty, satisfactory research effort is defined as a five-year average of one substantive article per year in respected peer-reviewed journals, and an active grant writing and management program. Chapters in edited collections are also considered. For faculty working in subfields where the publication pattern emphasizes books rather than journal articles (e.g., some aspects of cultural geography), satisfactory publication would consist of authoring or co-authoring one book every five years. Long-term projects, such as editing of books will also be taken into consideration. Approximately 40 percent of faculty time should be devoted to research and writing, and approximately 40 percent of the evaluation of faculty is to be weighted on research productivity."
```

Assuming that the University of Colorado is a good comparison and representative of typical geography departments, our productivity is significantly higher than these standards, and reflect that the current faculty publication rates compare well to peer institutions, and are probably comparable to the top 15 Geography departments in the country.

**Grants**

Funding trends in the department have risen significantly over the last decade, generally tripling from 1999 to 2009. This reflects a concerted effort by all groups to seek extra-mural funds. Funding comes from a large diversity of projects and reflects the wide range of activities conducted by the different groups. Three projects stand out in terms of funding. First is the Center for Remote Sensing of ice Sheets (CReSIS) NSF funded research center that involves Braaten, Van der Veen, Feddema, and Li. Dr. Braaten played a major role in obtaining this $19 Million project that is a joint effort with Penn State University, Ohio State University, Haskell Nations University and several other collaborators. A second large project is based on the
American Geographical Society funded Bowman Expeditions led by Dr. Dobson and Dr. Herlihy, which involves mapping land tenure trends in a variety of locations worldwide. The third project is a five year NSF funded EPSCoR project studying the impacts of climate on farmer decision making regarding food and fuel crop production. This project involves Brown, Egbert, Feddema, Brunsell and Mechem. Besides these three large projects there are a significant number of other projects funded by a variety of institutions including NSF, NASA, the US Geological Survey (W Johnson), the National Center for Atmospheric Research, and a number of other organizations and institutions. Given that the EPSCoR grant started this fiscal year and the CReSIS project was approved for renewal, and with significant new grants expected from NOAA and the U.S. Military, it is almost certain that the 2010 total funding income will increase significantly compared to even the last few successful years.

In addition to core faculty (full time members of the Department), affiliate faculty also are listed as funding sources to the department. The last few years, the sole source of this funding has been Dr. Honea, Director of the Transportation Research Institute.

Overall this level of grant funding is well above expectation for Geography Departments. While we are only able compare this levels of funding with other departments within the University, we believe this level would probably fall within the top ten geography departments nationwide.

**GRADUATE STUDIES**

**Overview**

The Geography Department has three graduate degrees: an M.A. in Geography, a Ph.D. in Geography, and an M.S. in Atmospheric Science. The M.S. in Atmospheric Science was
established in the Fall 2009 and to date only two students are enrolled. We also are in the process of developing a new M.S. in Geography, which we hope will be approved by the fall of 2011. In addition to these degrees, we offer a joint M.A. program with Urban Planning in the School of Architecture (guidelines to the Geography programs and details of the degrees are presented in Appendix E).

Several trends are apparent in the graduate student population over the last decade (figure 4). The total number of students enrolled has varied from 61 (2002-3) to 88 in 2009. During that time the proportion of Ph.D. students has increased from representing a minority of students early in the record to forming the majority later in the record. The department has made a concerted effort since 2003 to emphasize the Ph.D. program and these trends reflect well on that effort. Graduation rates are highly variable, but should begin to follow the enrollment statistics as might be indicated by the highest number of graduates occurring in 2009. Given the time lag between enrollment and graduation, we expect the graduation rates to change in a similar fashion to the enrollment trends in the near future. Since 2003 we have also made a concerted effort to reduce the time to degree. In the period from 2001-2003 the median time to degree for each class of graduates for M.A. students varied from 3.1-4.7 this range was reduced to 2.3-2.7 years for 2007-2009. The Ph.D. level experienced a similar change from 5.6-8.2 years in 2001-2003 to 4.6-7.2 years in 2007-2009.

A second clear trend in the graduate student makeup is that the student body has become much more human geography oriented over the last decade (based on the classification of the

![Figure 4: Trends in the graduate student population over the last decade. The first column shows enrolled graduate students by degree type, the second column shows the same population split by area of specialization and the last numbers graduating by degree type.](image-url)
advisor). Many of these new students are choosing our department because of our strong regional foci, particularly in the Caucasus and Central Asia, Africa, Latin America and North America. The Physical area has remained relatively unchanged with respect to student numbers, but this is likely to change as the MS degrees are put into place. There appears to have been a small decline in the techniques/GIScience student numbers. Part of these trends can be attributed to the change in faculty composition due to the recent retirement and hiring realities. The second significant factor that appears to be playing a role is the type of students we attract with an M.A. degree. Students in the physical and techniques areas typically come from B.S. degrees, and are interested in an M.S. instead of an M.A. degree. In addition, we have found that some students come in with the expectation of doing physical or techniques work, but when they find that they are lacking background requirements (math, science and/or computer programming) they switch to cultural topics which better match their undergraduate experiences.

Question: What is the best strategy to improve graduate student recruitment and retention in the physical geography and techniques/GIScience specializations of the program?

Graduate Student Recruitment

Based on information from student summary statistics (Appendix C, pg 11) typical incoming graduate student GRE scores have remained relatively steady, ranging from 507.5-526.4 for the qualitative score and 612.8-637.1 for the quantitative score. On average about 65% of applicants are admitted and of those about 50% typically enroll. Over the past decade the graduate student body has become slightly more international and more female, however we only occasionally attract under-represented minority students (with some success at both the M.A. and Ph.D. level in 2009). We believe we have begun to put into place a mechanism for creating better diversity within the program, in part through the hiring of minority faculty who have an interest in working with underrepresented groups; especially Native Americans; the most underrepresented minority in the discipline as evidenced by the AAG’s recent diversity study. Although we have been successful in recruiting international students, sometimes this is difficult because we are unable to offer these students graduate teaching assistant (GTA) contracts due to stringent university language requirements. Graduate research assistantships (GRAs) are also available through faculty grant funding, but faculty generally prefer to offer GRAs to students with whom they are familiar.

Student Funding Sources

The majority of our graduate students receive funding as either a GTA or GRA. Approximately 18-20 GTAs are available each year within the department and 3-5 GTAs have been available through the Environmental Studies Program over the last several years; this will be reduced as the Environmental Studies becomes more cross disciplinary and rotates GTAs through additional departments. GRAs are available through faculty in our department and through additional units on campus, including the Kansas Applied Remote Sensing Program, Kansas Geological Survey, the Natural History Museum and the research projects highlighted under the funding projects (CReSIS, EPSCoR, C-Change IGERT etc.). The stipend for incoming GTAs in the Fall of 2009 was $16,482, an increase of more than $2,000 over 2007 (there was no increase between 2008 and 2009). Since GRA stipends are set by individual faculty members, they may vary from GTA stipends, but to encourage students to become GRAs, salaries generally are made comparable to GTA salaries.
The University hires GTAs under rules negotiated with a GTA union, with the typical assignment 50% time, or 20 hours/week. The duties for GTAs vary considerably, ranging from serving as a lab assistant in our GIScience courses to teaching small introductory physical geography labs to teaching large introductory physical and human geography classes. Typically, approximately one-half of our large introductory courses are taught by GTAs. This is partly because many of our faculty have administrative appointments with other units).

Some fellowship funding is available for graduate students, but the number of fellowships and the amount of funding for each fellowship is limited. The prestigious Self Fellowship (http://www2.ku.edu/~selfpro/) provides substantial funding over a four-year period to prospective Ph.D. students. In the last ten years the department received two Self Fellowships, and, from the KU Graduate School, there have been four First Year fellowships and five Dissertation Year Fellowships. In the last three years we had significant success with the new C-Change IGERT fellowships, receiving three such fellowships. The department has also had some success with Dissertation Year Fellowships from NASA and NSF, and graduate students have found additional funding for field work and travel through a variety of sources including the KU Graduate School, Area Studies programs, Sigma Xi, Geological Society of America, AAG, Association of Women Geoscientists. The department also provides conference registration scholarships to any students presenting papers at conferences.

Graduate Requirements and Curriculum

Appendix E provides details on graduate programs in the Department of Geography, including the specific requirements for the M.A. program in Geography and the M.S. program in Atmospheric Science. Until 2005, a non-thesis option was available for the M.A. in Geography, but that option was eliminated because the program mostly attracted terminal MA students and did not support the Ph.D. program effectively.

The Ph.D. program generally includes sixty hours of work beyond the M.A. of which eighteen to thirty hours are satisfied by the dissertation. No specific credit-hour figure can be set for a doctoral degree because each program is designed on an individual basis. Of greater importance is the student's demonstrated competence in selected area(s) of specialization. The Ph.D. program is comprised of formal courses, seminars, individual research and reading, and preparation of a dissertation. Although no "outside minor" is formally required of Ph.D. candidates, the department favors study in auxiliary departments. Field Experience (GEOG 714) is the only required course at the Ph.D. level.

The major areas of study for the Ph.D. include geographic information science, physical, human, and regional geography. A student concentrating within one of these divisions will develop a program in consultation with professors in that area. The program usually will include work in other aspects of geography and related disciplines. A student also may develop a second concentration if he or she takes at least nine hours in that specialty and includes a professor from that second area on the committee for the comprehensive examination. This second area of concentration may lie outside of geography.

Foreign language or research skills (FLORS) for the Ph.D. are met with one of four
options: 1) demonstrate a reading knowledge of two foreign languages relevant to the student's research interest; 2) for a single foreign language, demonstrate a reading, writing, and speaking capability sufficient to enable the student to do field work without an interpreter; 3) demonstrate a satisfactory capability in two research skills (computer science, mathematics, statistics, or an outside discipline relevant to the student's field of specialization within geography); or 4) demonstrate a reading knowledge in one foreign language and a satisfactory capability in one of the research skills listed for item 3.

Graduate Assessment

Graduate student feedback to the program is provided in two ways. First is the assessment provided by the University (pgs 23-24, Appendix A). Based on these surveys, and in comparison to other units on campus, the department is ranked mostly in the upper quartile in basic satisfaction measures, and with a general improved satisfaction measures from 2005 to 2009. In particular we scored high on overall quality of the program and in particular the question “Select KU if starting over.” Responses to “Quality of academic advising and guidance” indicate that the department needs to improve in this area, although the scores were still near the university median scores. This agrees well with some faculty member’s perception that our graduate students need to be provided with more systematic information about academic life and how to prepare for an academic career. On questions regarding impediments to completing the degree the department consistently scored well below the university average indicating that students feel there are relatively few impediments caused by the department.

The department has also conducted its own surveys where we request feedback from students approximately every 5 years. Appendix F includes a sample form for feedback that was used in the spring of 2009; this form was sent to all graduate students who had received a degree in the last 15 years. One must be cautious in interpreting the feedback because of the small number of students who typically respond. In 2009, 28 (17%) of 168 students contacted responded.

Although both M.A. and Ph.D. students were satisfied with their educational experience, the Ph.D. students clearly were more satisfied, as reflected in the responses to the following question:

Overall, how would you rate your experience in our Master’s program?  

<table>
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<tr>
<th>Worst</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>Best</th>
</tr>
</thead>
</table>

The mean scores were 4.0 and 4.5 for M.A. and Ph.D. students, respectively (median scores were 4.0 and 5.0). Although students were satisfied with the programs, they suggested several ways in which the programs could be improved. One suggestion for improvement was to modify our basic introduction to graduate study courses (GEOG 805 and 806). Although there was no consensus as to how these courses could be improved, students stressed that more practical information could be included, such as providing information on how a university functions, how to develop special sessions at national conferences, and how to obtain grant funding. With the revision of 806 in the last two years, some of these issues are already being dealt with. A second suggestion for improvement was the need for more applications (and less theory) in our GIS courses. A third point was that several students were dissatisfied with our Field Experience course (GEOG 714), while other students clearly enjoyed this course. Although students often like Field Experience once they have taken it, they are often reluctant to take the course because
it is offered in the summer when they could be employed, others had difficulty attending for family and other reasons.

An evaluation of post graduation activities of M.A. and Ph.D. graduates from 2004 to 2009 shows that 22 out of 48 M.A. students moved on to Ph.D. programs (46%). At the PhD level almost all of the 29 graduates are in teaching positions, almost all in four year institutions. Example placement institutions include the University of Washington, University of Nebraska, University of Missouri, University of Alaska, and the University of Southern Mississippi. Some of our international graduates have returned to home institutions, including the University of Zambia, University of Costa Rica, Kuwait University, and the United Arab Emirates University. One key graduate holds a staff position in the AAG.

Question: What is the best way to provide better information to our graduate students about the requirements for a successful academic career? How can we encourage a culture that starts this process from the very beginning of student careers? For example, how do we encourage students to start publishing earlier in their careers and not just post thesis/dissertation? How can we get more students placed in Tier 1 programs?

**Honors and Awards**

Our department has always made a concerted effort to nominate graduate students for awards. The awards that our students have received in the last few years reflect this effort and are also indicative of the high quality of our students. The following are just some of the awards that our students have received in the last few years.

- Henry Way (2006) and Josh Long (2008) received Carlin Graduate Teaching Assistant awards (only two are awarded each year in a university-wide competition).
- Josh Campbell (2007), Hilary Hungerford (2008), and Aubrey Jones (2009) received awards for the best Master’s thesis in the College (one from each area of specialization).
- Cristin Burke (2007), Thomas Overly (2007), and Hilary Hungerford (2009) received Fulbright awards for study and research abroad during the academic year.
- Trish Jackson (2008), Ferdouz Cochran (2009) and Ashley Zung (2010) received two year fellowships as part of the NSF funded C-Change IGERT program

**Areas for Improvement in our Graduate Program**

Although we are pleased with the number and quality of our graduate students, we see several areas for improvement. One is the need to create funding sources that would enable us to offer fellowships similar to the Self Fellowship, which could be used to recruit the most talented students. If we are to achieve our goal of top-ten status, then we need to recruit the very best students. Second, we need funds for fellowships or GRAs that would enable us to recruit high-quality international students. Once these students have been at KU for a year, their English should become good enough that they also could serve as GTAs. We have submitted requests for additional fellowships and GRAs to the forthcoming KU Campaign. Third, we need to develop approaches that encourage students to apply to KU in areas that better reflect the broad strengths of the department. Presently, only four faculty are advising approximately 50% of our graduate students. Fourth, we need to develop approaches for advertising our recently approved M.S.
program in Atmospheric Science and our proposed M.S. program in Geography. Fifth, relatively few of our students have moved into top tier university positions, and it would be desirable to ensure they become more competitive by encouraging more publications earlier in their careers and to improve training in career development.

**Question:** How can we recruit a wider variety of graduate students to apply to our program?

### UNDERGRADUATE STUDIES

**Overview**

The Department offers B.A., B.G.S., and B.S. degrees in Geography and a B.S. degree in Atmospheric Science. The B.S. in Geography has two options: 1) Physical Geography and 2) Geographical Information and Analysis. The B.S. in Atmospheric Science has five options: 1) General Meteorology, 2) General Meteorology with Mathematics minor, 3) Air Pollution, 4) Hydrometeorology, and 5) News Media Forecasting. Details on these degrees are provided in Appendix D. Beginning in Fall 2011, many of our techniques courses will become part of an interdisciplinary Bachelor of Science degree in Interdisciplinary Computing (BS IC), which is a Computer Science degree with GIScience as one option for specialization.

Overall the number of majors has been growing fairly steadily to about 200 students for all degrees at present. This growth in Geography majors began when we made significant revisions of the major structure in 1999. However, there are other factors that contribute to this success. One factor is the general excellence of teaching in the department, as is illustrated by the numerous teaching awards. A second reason is that our advising has also been very effective as is illustrated when the department won the 2004 Excellence in Undergraduate Advising Award from the College of Liberal Arts and Sciences.

Figure 5 shows the growth in the number of majors for all degrees in the Geography Department and the relative concentration in each of the four degrees offered by the department. Within the three geography majors (BA, BGS and BS degrees) the number of majors has almost doubled over a 10-year period, from 64 in 1999 to 127 in 2008. We can also see that the relative number of B.G.S. degrees is higher in the last two years of the period, but that all three degrees have increased in number. Over the same period the number and relative concentration of Geography undergraduate degrees awarded shows a similar trend, increasing from about 30 graduates/year to about 40 graduates/year. It is noteworthy that although the number of BS majors has increased, the graduation numbers have not significantly increased over the same period. It is not uncommon for B.S. degree seeking students who struggle with the math or science requirements, or find the B.S. degree taking longer than expected, to elect to change to the BGS major in order to facilitate their graduation. The mean GPA for those receiving Geography undergraduate degrees has ranged from 2.8 to 3.1 (see Appendix C for more detail), and has typically included numerous students with GPAs in excess of 3.5. Each year several students decide to go on to graduate school, either at KU or typically at another Research I university.
Figure 5 also shows the number of Atmospheric Science majors over the last ten years; with the exception of two high years (2005-2006), the number of majors appears steady. We consider 75 or more majors quite reasonable given that we have only four faculty dedicated to our Atmospheric Science program. Typically, many undergraduates have an interest in weather forecasting and thus major in atmospheric science, but then find that they lack the necessary mathematical background and switch to another major. This is reflected in the annual graduation rates, which are relatively steady at about ten Atmospheric Science graduates each year. Over the last ten years, the mean GPA for those receiving Atmospheric Science undergraduate degrees has ranged from 2.9 to 3.3, and has typically included numerous students with GPAs in excess of 3.5. Each year several students decide to go on to graduate school, often at a Research I university. With the development of our new M.S. program, we expect that some of our top undergraduates will continue on at KU and that we will have to recruit from within before we garner a national reputation to recruit outside students.

Undergraduate Research

Within all the majors there is the option for student to write honors theses and to complete independent research projects. Over the last three years, there have been 2 honors theses produced, and at least one student published a peer reviewed article with Dr. Brunsell as a result of such a project. Four atmospheric science undergraduates have also presented papers at national and international conferences. We hope to encourage both faculty and students to
develop more research opportunities as part of their educational experience. There are a number of outlets for undergraduate research, including undergraduate symposia with the university. Linking such projects to internships is another consideration and this would be especially applicable to physical/atmospheric sciences and techniques students, currently two students this in Johnson County, Kansas.

Service Courses

As indicated on page 2 of Appendix C, the bulk of the Department’s credit hours are taught at the introductory level (below the 300 level). Large introductory courses (those having approximately 100-200 students) include World Regional Geography (GEOG 100), Principles of Human Geography (GEOG 102), Principles of Physical Geography (GEOG 104), Introductory Meteorology (ATMO 105), and Unusual Weather (ATMO 220). Scientific Principles of Environmental Studies (GEOG 148) and Environment and Society (GEOG 150) are two large enrollment classes that are cross-listed with Environmental Studies and are alternately taught by faculty members from that program and geography. Prior to 2005, the bulk of our introductory courses were taught by tenure-track faculty, but more recently GTAs have handled nearly the same number of introductory courses as faculty because of the numerous administrative appointments held by our faculty, as discussed previously.

Our honors offerings have been relatively limited, consisting of honors sections of Physical Geography (GEOG 107) and Introductory Meteorology (ATMO 106) and Scientific Principles of Environmental Studies (GEOG 149) and Freshman honors Tutorials (HNRS 190). Although some faculty have expressed an interest in teaching honors courses, we have not offered more of them because of a need to cover the large sections of the introductory classes and the limited available faculty, again partly due to administrative appointments.

Our GIS classes (especially GEOG 358 and 558) serve our undergraduate majors, but also a broad range of disciplines across campus. Thus, we offer the 358 class every semester and the 558 class once a year. Since both of these classes have a lab, we have limited enrollment to a maximum of 30 per semester in 358 and 30 in 558, but suspect that the enrollment in 358 could go as high as 40 per semester.

Undergraduate Assessment

In comparison to other university units (Appendix C, pg 20-21) the department generally is above the average response rate for all units. However, it is evident that on some categories the numbers have declined since 2005. Specifically numbers related to faculty contact hours and specialty course offerings are down in part because FTE number have not kept pace with increased numbers of majors and because a number of FTE active in teaching in 2005 are now in administrative roles.

To assess the effectiveness of our undergraduate program, we request feedback from alumni approximately every 5 years. Appendix F includes a sample of forms that were used in the spring of 2009; these forms were sent to all undergraduate alumni who had received a degree in the last 15 years. As with the graduate assessment, one must be cautious in interpreting this feedback because of the small number of students who respond. In 2009, 57 (11%) of 520 undergraduates contacted responded (12% of Geography students and 9% of Atmospheric Science students). In addition, each year we have attempted a Senior Survey (a sample form is
provided in Appendix F). In 2007 and 2008, we received only a handful of responses to the Senior Survey. In 2009, we stressed that completing the survey was essential if one wished to attend our departmental graduation ceremony and the results were much better, as we received 14 responses.

**Geography** Overall, our undergraduate Geography alumni have a very favorable impression of our Geography program. 100% of the 43 Geography alumni responding to our survey indicated that they would advise others to come to KU for education in Geography. Typical comments from alumni were as follows:

“I found the coursework very interesting, challenging, and diverse. The faculty and staff of the Geography Department were very helpful and personable. I had a great experience.”

“I would advise others to come to KU for Geography because the professors are all so helpful, friendly, and extremely knowledgeable. The course offerings are well-rounded.”

Given these positive types of statements, it is not surprising that the alumni also responded favorably to the following two questions dealing with the usefulness of coursework and the helpfulness of advisors:

<table>
<thead>
<tr>
<th>Was coursework in Geography helpful in your current or previous positions?</th>
<th>NO</th>
<th>YES</th>
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<tr>
<td>1</td>
<td>2</td>
<td>3</td>
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<table>
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<tr>
<th>Were your advisor and mentors helpful?</th>
<th>NO</th>
<th>YES</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
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Mean scores for these questions were 4.1 and 3.6 (the medians were 4.0 and 4.0), respectively. Although overall students were happy with the program, a few wished that there had been more emphasis on applications (as opposed to theory), and approximately half a dozen stressed the need for assistance in determining potential career opportunities in geography.

Responses to the numerical portion of the Senior Survey (questions 1-9 in Appendix F) for the Geography program were quite favorable, with mean scores falling between 1.4 and 2.2 (1 was the best possible score and 5 the worst possible score; the median scores were either 1.0 or 2.0). Students stressed the quality of the faculty and the broad range of courses offered, things that were also stressed in the alumni survey. More than one-half of the students thought that the GIS skills they had learned were particularly valuable.

**Atmospheric Science** Overall, our undergraduate Atmospheric Science alumni have a positive impression of our Atmospheric Science program. 71% of those responding to our survey indicated that they would advise others to come to KU for atmospheric science education, and the remaining 29% either felt that they had insufficient information to make this determination, or that they might be more positive if improvements were made in the program. One improvement that was suggested by several alumni (including a couple who were very positive about the program) was the need for greater focus on the real world of weather forecasting. Alumni felt that coursework in atmospheric science was reasonably helpful to them, as reflected by a mean score of 3.3 (median of 3.5) to the following question:
Was coursework in Atmospheric Science helpful in your current or previous positions?  

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<th>NO</th>
<th>YES</th>
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<td>4</td>
<td>5</td>
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Several of those who responded on the low end of the scale for this question indicated that their response was affected by their current employment, which had little to do with their past coursework in atmospheric science. The Atmospheric Science alumni were somewhat satisfied with the advising that they had received, as reflected by a mean score of 2.7 (median of 3.0) on the following question:

Were your advisor and mentors helpful?  

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There appeared to be no common problem in the advising realm, although there have been some issues where the freshman/sophomore advising center did not communicate clearly enough the need to start the mathematics sequence early, thus affecting the ability for student to graduate on time. Several students expressed the desire for more of an applications focus, as opposed to a research focus.

Responses to the numerical portion of the Senior Survey (questions 1-9 in Appendix F) for Atmospheric Science were quite favorable, with mean scores falling between 1 and 2 (1 was the best possible score and 5 the worst possible score). One exception was a mean score of 3.2 (median of 3.0) on the following question:

The department helped me become aware of my professional options  

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This mediocre score parallels the problems that alumni noted with advising. Thus, it appears that we need to make improvements in our advising of atmospheric science students and stress the range of professional options.

One strength noted by several of the graduating seniors was the small class sizes and ability to interact with faculty. Several students also noted that they were happy to have developed skills in computer programming (e.g., R and Matlab). Like the alumni, several seniors expressed concern for the limited focus on weather forecasting.

Question: Much of the research by Atmospheric Sciences is on climate related topics or micro- and meso-scale modeling. This is in part a response to avoiding direct competition with the excellent weather and severe storms program at the University of Oklahoma. Should we be emphasizing more of a weather forecasting in our major and how would we implement that, given that our research programs tend to focus on other aspect of Atmospheric Sciences.

Areas for Improvement in our Undergraduate Program

The Geography undergraduate program has been quite successful since a major revision of the degrees was implemented in 1999, and the degrees were again reviewed in 2003. However, there are potential areas of improvement. The current course structure is due for revision, and several of the science tracks in the BS degrees need to be streamlined, partly because we have been able to offer some core courses on biogeography and hydrology. In addition, there is some sentiment among the faculty that we need to provide students with more hands on tools that they can use post-graduation. Currently the BA and BGS degrees do not
require any GIScience or statistical methods as part of the core requirement. In the future it would be desirable to provide students with some exposure to these methods to better prepare them for employment. There is the point of view that humanities oriented students should not need to take such courses, but with modern technology like mapping on cell phones and GPS systems, it is highly desirable that geography undergraduates have some exposure to these techniques. Implementation of such a scheme may require developing a new course or re-thinking some of our introductory techniques courses (e.g. GEOG 111 or GEOG 210). It would also be desirable to get some of our most talented teachers back in the introductory courses. Several of our best teachers are moving into administration, and this has forced us to find replacement instructors for some of our lower level courses.

The Atmospheric Sciences program has not grown significantly, but it is doubtful that we could handle many more majors with the current number of faculty available for teaching. With such small faculty numbers, it is proving difficult to provide all the required courses. For example, next year Dr. Brunsell will be in Germany on sabbatical for the year, Dr. Mechem is eligible for his research intensive semester and Dr. Braaten will need a course release to manage CReSIS. This situation is close to untenable in terms of providing adequate courses and excellence in teaching. In order to stabilize this program it is critical that there be additional FTE in the near future. One of our long term goals is to expose all atmospheric science majors to GIS technology as part of their course requirements, but this also is difficult as Dr. Li is currently the only instructor to consistently teach the GIS course. Similarly, we have lost two biogeographers and a remote sensor, and we are struggling to offer sufficient quality instruction in these areas at the advanced levels.

**Question: Should we require GIS and Statistics for all geography majors?**

**Facilities and Institutional Support**

The Geography Department is located primarily on the second and fourth floors of Lindley Hall on the Lawrence campus. Given our recent increase in faculty and new laboratory space, we are running out of space. We have identified two places in Lindley Hall where two new faculty offices could be created, but these renovations would require remodeling funds. These changes would also mean that we no longer could support any emeriti faculty – presently, we have one such faculty member, but we expect that with retirements over the next few years we would like to support several emeriti. The Department of Geology, whom we share Lindley with, has proposed an addition to Lindley Hall, but we generally have not been included in those discussions because we have no endowment funds to assist in the construction of such an addition.

All classrooms and offices in Lindley Hall have internet access; wireless is also available, but due to speed and security issues, wireless is not recommended for serious academic work. Most classrooms are multimedia ready, while instruction in other classrooms can be enhanced with portable LCD projectors. We have experimented with stereoscopic displays, but the cost of installing these in classrooms is prohibitive.
Students have 24-hour access to departmental computing facilities, which currently contain AMD 64 and Pentium 4 Windows-based systems. Thirty-six of these units, largely for general geographic-information-system and image-processing instruction, are housed within two identical multipurpose laboratories. We have just received 20 new computers to replace these systems and will consolidate the laboratories into one. The other space will be used as a multi-purpose classroom where we can run computer demos, including 3D visualization, and other specialty classes. Other computers are in a separate laboratory are presently dedicated to graduate student research and seminars, however with any new hires this space will likely be converted to a faculty office. Scanners and laser printers are available in all laboratories. Ten new systems will replace the existing LINUX computers in the department’s Meteorology and Climate Hub. These run meteorological software packages such as Integrated Data Viewer, GEMPAK and Meldas. The department also maintains a Local Data Manager to access real-time weather data from around North America.

All Windows computers in the department are equipped with ArcGIS 9.3.x, Imagine 9.x and ENVI 4.x. Other software within the labs includes Photoshop, Freehand, SPSS, and Microsoft Office suite. The department maintains local license managers and servers for storage of class data, student and faculty research. Many faculty maintain research facilities with Windows Mac and/or Linux based systems within their office complex for use by graduate students for directed or individual research. Departmental computing facilities are complemented by various university-sponsored labs around campus and cooperative arrangements with the Kansas Applied Remote Sensing program and the Kansas Geological Survey.

In addition to computing facilities, the department has well-equipped laboratories for students working in traditional cartographic production, pedology, geomorphology, palynology, and climatology/atmospheric science. The department also maintains an instructional map library and has easy access to extensive map collections at the Spencer Research Library and the university map library. We also have access to a number of field sites, including our field camp site in Canon City, Colorado and four sites where we maintain flux towers and other instruments (NESA, Konza Prairie (2) and Hays (under development)).

Supporting staff for the department include three front office staff (two full-time and one half-time), two computer technicians (one full-time and one half-time), and one half-time Cartography/GIS lab director. With 22 faculty, 88 graduate students, and about 200 undergraduate majors, we feel that two and one-half front office staff is essential. Unfortunately, the half-time person is not included in our base budget and so we worry about losing this position. Another issue that we have struggled with is making sure that the computer needs of our faculty are met. Linux support has been recognized as a need, but it is not clear how these systems will be supported in the future. For example, Dr. Mechem had to wait more than two years before space for his Linux Cluster could be found. Currently this system is critical to not only Dr. Mechem’s own research, but it is also scheduled to perform the bulk of the downscaling simulations he and others are contracted to perform for the EPSCoR project. Although there has been an attempt to centralize computer support, this does not appear to be working for research oriented high performance computing systems; although it has been quite effective for teaching needs.
Overall, the resource issue is of major concern to maintaining the forward progress we have made in terms of research productivity. From the statistical point of view our per capita output with regard to papers, grants and teaching clearly compares very well with other units within the Natural Sciences and Mathematics in CLAS (Appendix B). Yet in terms of resources our department is clearly being stretched significantly, so that the pace we are on is unlikely to be sustainable. In 2003 when the Atmospheric Sciences Program moved from the Department of Physics and Astronomy, we performed a comparative evaluation of resources across the two departments. The Physics and Astronomy department (data from their 2008 self study) has 25 faculty (2 on phases retirement; Geography has 22), 109 majors (Geography has 190), ~45 graduate students (Geography has 88), a 1:1 teaching load (Geography has 2:2), with 2.75 Office Staff and 1.5 Accounting Staff (Geography has 2 office staff, a temporary 0.5 office staff and 0 accounting staff), 2 computer support staff (Geography has 1.5), Physics has 3 Electronics/Instructional/Laboratory support staff and 2 Machine shop staff (geography has a 0.5 production cartographer and no support for any of our soils laboratories, meteorology instruments, or the four flux towers we operate in different parts of the state). The standard administrative response to such differential teaching loads and support levels is that the lab sciences need more time to manage their resources and extra-mural funded projects (our grant income is roughly equal over the last 3 years), and perhaps more so, that there is a historical precedent. As a department we are consistently compared to other Geography programs, many of which are housed in Social Sciences divisions and do not have the same resource needs of our more physically oriented unit. It would seem that teaching loads and resource allocation should be made on merit, and that the administration should consider such matters on an individual faculty basis rather than at the department level. Again citing the University of Colorado program as an example, their policy states:
(http://www.colorado.edu/geography/documents/differentialworkload.doc):

"2.0. DIFFERENTIAL TEACHING LOADS

Differential loads are considered to be deviations from time and effort among equally valuable forms of contributions, namely, teaching and research and publication. Thus, for example, it is possible that a person teaching more than the standard load could be judged to have made a total contribution greater than a person teaching less than the standard load.

For the purpose of determining workloads, a course normally must meet the minimal enrollments set by the College and usually will be a three-credit course. Other teaching activities, such as 1-credit reading groups or the internship, do not meet this definition of a course.

2.1. More than four courses.---Faculty will normally teach five courses when their research and publication activities drop below the standard defined in 1.2 (cited earlier). In extraordinary cases, teaching load may be increased to six courses.

2.2. Less than four courses.---Faculty will normally teach three courses when their research and publication activities are greater then the standard defined in 1.2. Faculty who achieve this level of research productivity are referred to as “research active faculty.”

By these standards most of our faculty would indeed be considered “research active faculty,” and it seems appropriate that a similar policy be used at KU, one that includes research activity in
addition to considering graduate student advising loads as part of the equation. Another example of differential workloads is provided by the University of Nevada Reno, where two climate related advertisements state: (http://www.unr.edu/geography/department/faculty-jobs/)

“Teaching responsibilities will be one course per year during the first three years of the appointment, three courses in the fourth year, and four courses starting from the fifth year, with a possibility of course releases depending on the availability of extramural research funds. Salary and benefits are competitive and commensurate with experience and education.”

**RESEARCH OVERHEAD RETURN**

The indirect rate for University grants was 46% in FY 09 for on-campus work and 26% for off-campus research. 10% of the funds resulting from administering the indirect rate are returned to the College, which, in turn, provides half, or 5% of the total, to the Department. Given the limited general (OOE) funds that we have available, we use the resulting overhead for a wide variety of purposes, ranging from supporting faculty and student research to funding departmental functions such as our annual graduation ceremony.

**SERVICE AND OUTREACH**

The Department’s standing committees are Faculty Affairs, Graduate Affairs, Undergraduate Affairs, Curriculum, Outreach, and Colloquium. Duties for these committees are listed in the departmental bylaws (Appendix D). With the recent growth of the department, it is apparent that there is a significant increase in service load within the department. With more faculty and students, managing evaluation procedures and other activities has become more difficult, and it may be time for us to consider alternative management structures, so that the load is spread evenly across all members of the faculty.

Faculty regularly serve on numerous standing committees at the College and University levels. At the College level, these have included the following committees: Academic Misconduct; Appointments, Promotion and Tenure; College Academic Council; Graduate Studies; Sabbatical Leave; and Undergraduate Studies and Advising. It is our perception that Geography carries a heavier service load than other departments in the College in part because of lower levels of support staff.

To promote outreach to our students we try to improve interaction with our students through a variety of events, including hosting a graduation ceremony for all our graduates on the Lindley Lawn, hosting annual BBQ events, and occasional pizza social events. We host GIS-day annually, where we attract a wide variety of local businesses and academics to an all day event. Specific activities include a series of theme based lectures, a student presentation competition
and poster presentations. The event has been very popular, and is very well attended. Similarly, we also host Globe-O-Mania, a geography team trivia contest annually during geography awareness week with attendance running in the hundreds.

Grant activities also have outreach components. For example, CReSIS has several educator training opportunities and holds a teacher training workshop annually. Several faculty participate in these activities by providing lectures or participating in the workshop, or as mentors for summer Research Experience for Undergraduates opportunities. Faculty also perform outreach to Haskell Indian Nations University as part of this program, and several of our graduate students have served as GTAs and instructors for GIS courses at Haskell. These opportunities have led to some excellent outcomes, such as the sea level rise maps displayed on the CReSIS website.

Many Geography faculty are very active in service to National organizations, Dr. Dobson is the president of the American Geographical Society, several faculty have been very active in service to the AAG, the AGU and the AMS. Next year we will be the host of the Great Plains and Rocky Mountain regional AAG conference (with Dr Dobson organizing the event), and Dr. Brunsell is chairing the AMS Agricultural and Forest meteorology conference. In addition, most faculty provide significant service in the form of review work for journals and funding agencies, editorial boards and organizing sessions at national conferences, and, as one example, served on the DOE BER program panels to set future research directions for that program.

Because of the growing interest in geospatial technologies and environmental issues (climate change in particular), there has been a significant public education component in the outreach performed by the department, particularly to the State of Kansas at a variety of levels. In the last three years, examples of such service include two of our faculty who were appointed by the State Governor to serve on the Kansas Energy and Environment Policy advisory panel that began the process of considering methods of reducing greenhouse gas emissions; faculty have provided testimony to the Kansas House and the Lt. Governor on global warming; outreach has also been provided to a number of local organizations including the Kansas Water Office, Kansas Academy of Sciences the Department of Defense and military organizations at Fort Leavenworth and the Linda Science Library in Kansas City. An example of local outreach includes our annual hosting of a group of local 7th graders as part of a career day, and outreach to local historical and geographic societies. For example, Dr. Shortridge has served on the board of the Kansas State Historical Society for about 10 years.

ALUMNI

The Department of Geography has more than 1500 alumni, with approximately 1100 undergraduate and 400 graduate alumni. Until 2005, our main contact with alumni was via our annual newsletter (see Appendix F for an example), which has been compiled and designed by our office staff. In our most recent assessments (see earlier sections), several alumni pointed out how happy they were to receive the newsletter.

In 2005, to further promote interactions with alumni and to increase our potential for securing donations, we formed an Alumni Advisory Board. The board currently consists of ten
alumni (six geographers and four atmospheric scientists), plus the chair of Geography, Terry Slocum. The chair of the board is Rob Shapiro, who has a high-level management position with Verizon. Rob has done yeoman service for the board, and was recently asked by board members to continue serving as chair. Examples of activities of the board have included social events in Lawrence (e.g., a football game and tailgate that was funded in part by endowed funds generated by the board); the creation of a professional network (http://www2.ku.edu/~geography/career/pro_network2.shtml) that enables students to contact alumni who are professionals in the fields of geography and atmospheric science; contacting other universities to find out their successes and failures (e.g., a chair at one school indicated that by developing careful interactions with alumni, more than 60% of alumni donated to the department); and a matching fund drive that generated approximately $14,000 in just three months.

In spite of these successes, both Rob and Terry feel that the board could do much more. One problem that they have had is getting board members to remain active following the annual board meetings. If we could determine a way to keep board members engaged following the annual meetings, they feel that the board could be even more successful.

Question: How can we get Alumni Advisory Board members to remain active throughout the year?

**SUMMARY**

The Geography Department has undergone some significant changes over the last decade. After a number of retirements, the department has shifted its overall composition, but has also been rejuvenated, leading to significant gains in all aspects of the program. Our research funding has tripled in the over the 10 year period, to the point where our per capita grant receipts are in the top five units of the college. Our research output, in terms of publications, clearly exceeds the standards set by most geography programs. At the same time we have increased our undergraduate majors by about one third, and our graduate student body has grown by about 20%. Surveys suggest that we perform above average when it comes to teaching quality. Yet, over this period of time, our resources have not kept pace. Compared to other units in the college we have fewer staff per capita (for example many units have an accountant, or assistance with advising/counseling) and we are struggling to develop and maintain computing and laboratory resources for our research. This is made more difficult by the fact that we maintain a relatively high teaching load of 4 courses per year, when comparable programs, in terms or research output within the university, have teaching loads of 2-3 courses per year. While the standard teaching load in the department is comparable to many geography departments, the atmospheric science faculty find themselves competing against people with significantly lower teaching loads.

As part of a significant self evaluation in 2003 we carefully developed a long term set of goals and vision, accompanied by a well thought out hiring plan. While we have tried to follow our plan, we have found that opportunity hires have slowly shifted the emphasis of the
department away from our original plan. Because Geography provides support to a wide range of interdisciplinary programs (area studies and environmental studies in particular), we have been asked to accommodate a number of joint hires with these programs. While these hires have all been very successful, and no doubt contributed to our current success, they have changed the direction of the program, and with a number of recent retirements, both the physical and GIScience components of the program have experienced a significant loss of staff. Currently there is a great need for an additional meteorologist, a biogeographer/remote sensing specialist and an additional GIS specialist – some of these hires could also be joint positions with a program like environmental studies. At the same time when looking to the future, there will be some large shoes to fill on the human side of the program too, and we should consider being pro-active in hiring people to ensure smooth transitions in, for example, our North American specialty position (Shortridge) which is critical in terms of graduate student support. Overall, the program is clearly improving and we hope to continue that trend for the next ten years.
Department of Geography
University of Kansas

Self Study for 2010 Program Review

APPENDIX A

. Summary of sources of information
**Summary of University Data Sources**

The data elements typically used to address the questions contained within the self-study are outlined below according to the location and source. For assistance with AIMS/DEMIS or OIRP data sources, or for questions regarding your DEMIS access, please contact Gwen Bohling in OIRP at 864-4412 or ggb@ku.edu.

The majority of the data needed for the self-study are available within the *Departmental Executive Management Information System (DEMIS)*, at [http://demisweb.ku.edu](http://demisweb.ku.edu). From the DEMIS User Agreement page, users sign in to the DEMIS portal using their KU Online ID and password. DEMIS data sources listed in this document are available via the **ACADEMIC** menu tab and selecting from the links on the right, under *Academic Management Information*. The content and organization of the *Academic Information Management System (AIMS)* data are detailed in item A below. Other links accessible via this menu include Senior Survey results (including Finest Faculty and Verbatim Comments) and Undergraduate Time to Degree reports.

Historical AIMS data are available on DEMIS but the most current academic year will not be available until February. Data cells with fewer than 5 observations are currently suppressed but will be revealed in the revised set until there is only one observation. Several other data pieces (e.g. Survey of Earned Doctorates, GTA/GRA counts, additional Senior Survey data, etc.) are under development and will be posted soon.

<table>
<thead>
<tr>
<th>A. Student and Faculty Measures</th>
<th>C. Department-based Information (DEPT)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student Credit Hour Production</td>
<td>Some program data are not housed at a central location but are compiled or tracked at the department level – such data include, but are not limited to, the list below.</td>
</tr>
<tr>
<td>Budgeted Faculty</td>
<td>Assessment of the Undergraduate Major</td>
</tr>
<tr>
<td>Instructor Workload Information</td>
<td>Projected 5-year student enrollments</td>
</tr>
<tr>
<td>Major and Degree Counts</td>
<td>Data from student evaluations</td>
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<tr>
<td>Graduate Admissions Yield</td>
<td>Financial support for graduate students – scholarships and fellowships</td>
</tr>
<tr>
<td>Student Satisfaction Measures (Undergraduate and Graduate / Professional Level)</td>
<td>Funding for faculty development</td>
</tr>
<tr>
<td></td>
<td>Placement of undergraduate and graduate students after graduation</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>B. Research Proposals/Awards</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Proposals Submitted to External Funding Agencies (Number/Dollar Value)</td>
<td></td>
</tr>
<tr>
<td>Awards (Number/Dollar Value, if relevant)</td>
<td></td>
</tr>
</tbody>
</table>

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D. **Pertinent Data Sources By Self-Study Question**

The following table outlines relevant pieces of information for specific questions of the Self-Study, and corresponding data sources including the AIMS table name where appropriate. Not all of these elements will be relevant for each program.

<table>
<thead>
<tr>
<th>Reference to self-study questions</th>
<th>Self-Study Question</th>
<th>Data Sources</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>What do we do and why do we do it?</td>
<td>AIMS/DEMIS (password required) DEPT OIRP (no password required)</td>
</tr>
<tr>
<td>1E</td>
<td>Need/Impact statements (student demand/employer demand for graduates)</td>
<td>Majors and Degree Counts – Majors in the Discipline Projected enrollment per year for next five years</td>
</tr>
<tr>
<td>1F</td>
<td>Inventory of Instructional Programs (undergraduate, graduate, and instruction)</td>
<td>See Program Inventory (school- specific version to be attached to memo to deans in January) <a href="http://www.provost.ku.edu/areas/academic/docs/program-review-schedule.pdf">http://www.provost.ku.edu/areas/academic/docs/program-review-schedule.pdf</a></td>
</tr>
<tr>
<td>Reference to self-study questions</td>
<td>Self-Study Question</td>
<td>Data Sources</td>
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<tr>
<td>2</td>
<td>Who does it? (faculty in profile)</td>
<td>AIMS/DEMIS (password required)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>DEPT</td>
</tr>
<tr>
<td>2A</td>
<td>Quantitative indicators</td>
<td>OIRP (no password required)</td>
</tr>
<tr>
<td>2A1</td>
<td>Overall counts/FTE</td>
<td>Budgeted Faculty</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Instructor Workload</td>
</tr>
<tr>
<td>2A2</td>
<td>Tenure-track, other, GTA</td>
<td>Budgeted Faculty - Proportion of undergraduate student credit hours taught by tenured/tenure-track faculty</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Proportion of graduate student credit hours taught by tenured/tenure-track faculty</td>
</tr>
<tr>
<td>2A5</td>
<td>Grants and contracts</td>
<td>Sponsored Project Expenditures</td>
</tr>
<tr>
<td></td>
<td></td>
<td><a href="http://www.provost.ku.edu/areas/academic/docs/program-review-rgs-data.pdf">http://www.provost.ku.edu/areas/academic/docs/program-review-rgs-data.pdf</a></td>
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<tr>
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<td></td>
<td>Proposals Submitted to External Agencies (Number &amp; Dollar Value)</td>
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<td>Awards (Number &amp; Dollar Value)</td>
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<td><a href="http://www.rgs.ku.edu/-downloads/annual_reports/index.s.html">http://www.rgs.ku.edu/-downloads/annual_reports/index.s.html</a></td>
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<td>2A6</td>
<td>Awards</td>
<td>Honors and awards</td>
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<tr>
<td></td>
<td></td>
<td>Funding for faculty development</td>
</tr>
<tr>
<td>2A7</td>
<td>Graduate faculty status &amp; dissertation status and criteria</td>
<td>Departmental records and/or Graduate Studies office</td>
</tr>
<tr>
<td>Reference to self-study questions</td>
<td>Self-Study Question</td>
<td>Data Sources</td>
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<tr>
<td>3</td>
<td>How well do we do it, and who thinks so?</td>
<td>AIMS/DEMIS (password required)</td>
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<tr>
<td>3A</td>
<td>Undergraduate-level</td>
<td></td>
</tr>
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<td>3A1</td>
<td>Students in Profile</td>
<td></td>
</tr>
<tr>
<td>3A1a</td>
<td>Test scores</td>
<td>Majors and Degree Counts – ACT composite scores of majors</td>
</tr>
<tr>
<td>3A1b</td>
<td>Financial support and other recruitment activities</td>
<td>Financial Aid Awarded</td>
</tr>
<tr>
<td>3A1c</td>
<td>Demographics (mean age, number of majors, minority, gender, international, domestic)</td>
<td>Majors and Degree Counts – demographics of enrolled students</td>
</tr>
<tr>
<td>3A2</td>
<td>Program Productivity</td>
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</tr>
<tr>
<td>3A2a</td>
<td>Distribution of size of classes, advising/mentoring models</td>
<td>SCH by Instructor Type – Percent SCH taken by majors/nonmajors</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Instructor Workload Information</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Senior Survey – Courses and Academic Advising</td>
</tr>
<tr>
<td>3A2b</td>
<td>Time to degree</td>
<td>Majors and Degree Counts - Undergraduate time to degree</td>
</tr>
<tr>
<td>3A2c</td>
<td>Degrees awarded</td>
<td>Majors and Degree Counts – Degrees conferred</td>
</tr>
<tr>
<td>Reference to self-study questions</td>
<td>Self-Study Question</td>
<td>Data Sources</td>
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<tr>
<td>3 (cont.)</td>
<td>How well do we do it, and who thinks so?</td>
<td>AIMS/DEMIS (password required)</td>
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</table>
|                                  |                     | Student Credit Hours – Student credit hour production  
Student credit hours taught on the Edwards Campus | Principal courses, service courses, or concentrations used by other departments and schools  
Interdisciplinary programming (undergraduate, graduate)  
Faculty interaction with other disciplines (team teaching, joint research or creative activities)  
Factors that impinge upon cost per credit hour  
1) Portion of FTE committed to research  
2) Percentage of SCH generated by non-tenure track instructors  
3) Special program needs, constraints, and extenuating circumstances | Other comparison information from institutions with similar programs |
| 3A2d                             | Credit hour productivity |  |
| 3A3                              | Program Quality Outcomes |  |
| 3A3a                             | Activities to document and measure learner outcomes | Departmental records |
| 3A3b                             | Satisfaction surveys (class evaluations, senior surveys) | UG-level Student Satisfaction Measures |  |
| 3A3c                             | Placement rates, employer assessments | Placement after graduation |
| 3A3d                             | Awards | Departmental records |
| 3A3e                             | Outreach/engagement and corresponding impact | Public service activities and outreach initiatives to external constituencies  
Services provided to other University departments (committees, etc.) |  |
<table>
<thead>
<tr>
<th>Reference to self-study questions</th>
<th>Self-Study Question</th>
<th>Data Sources</th>
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<tbody>
<tr>
<td><strong>3 (cont.)</strong></td>
<td><strong>How well do we do it, and who thinks so?</strong></td>
<td><strong>AIMS/DEMIS (password required)</strong></td>
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<td><strong>3B</strong></td>
<td><strong>Graduate –level</strong></td>
<td></td>
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<td><strong>Students in Profile (applicants, admitted and enrolled students)</strong></td>
<td><strong>Graduate Admissions Yield</strong> – Graduate applicant pool data</td>
</tr>
<tr>
<td><strong>3B1a</strong></td>
<td><strong>Test scores</strong></td>
<td><strong>Majors and Degree Counts</strong> – GRE or other standard scores by department and program</td>
</tr>
<tr>
<td><strong>3B1b</strong></td>
<td><strong>Financial support (scholarships, fellowships, GTAs, GRAs) and other recruitment</strong></td>
<td><strong>Financial Aid Awarded</strong></td>
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<tr>
<td><strong>3B1c</strong></td>
<td><strong>Demographics (mean age, number of majors, minority, gender, international, domestic)</strong></td>
<td><strong>Majors and Degree Counts</strong> – Graduate student demographics</td>
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<td><strong>3B2</strong></td>
<td><strong>Program Productivity</strong></td>
<td></td>
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<tr>
<td><strong>3B2a</strong></td>
<td><strong>Distribution of size of classes, advising/mentoring models</strong></td>
<td><strong>Instructor Workload Information</strong></td>
</tr>
<tr>
<td><strong>3B2b</strong></td>
<td><strong>Time to degree</strong></td>
<td><strong>Majors and Degree Counts</strong> – Graduate student time to degree</td>
</tr>
<tr>
<td>Reference to self-study questions</td>
<td>Self-Study Question</td>
<td>Data Sources</td>
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<tr>
<td>3 (cont.)</td>
<td>How well do we do it, and who thinks so?</td>
<td>AIMS DEMIS (password required)</td>
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<tr>
<td>3B2c</td>
<td>Degrees awarded</td>
<td>Majors and Degree Counts – Degrees conferred</td>
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<tr>
<td>3B2d</td>
<td>Research productivity (publications, grants and contracts)</td>
<td>Publication and conference attendance by students</td>
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<tr>
<td>3B3</td>
<td>Program Quality Outcomes</td>
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<td>3B3a</td>
<td>Activities to document and measure learner outcomes</td>
<td>Departmental records</td>
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<tr>
<td>3B3b</td>
<td>Satisfaction surveys</td>
<td>Graduate Student Satisfaction Measures – Graduate Student Satisfaction Survey</td>
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<td>3B3c</td>
<td>Placement, employer assessments</td>
<td>Placement after graduation</td>
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<td>3B3d</td>
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<td>Departmental records</td>
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<tr>
<td>3B3e</td>
<td>Outreach/engagement and corresponding impact</td>
<td>Public service activities and outreach initiatives to external constituencies</td>
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<td>4</td>
<td>Overall Quality</td>
<td>AIMS/DEMIS (password required)</td>
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<td>4A</td>
<td>Quantitative Indicators</td>
<td>DEPT</td>
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<tr>
<td></td>
<td></td>
<td>OIRP (no password required)</td>
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<tr>
<td></td>
<td>Student Satisfaction Measures (available in Senior Survey reports)</td>
<td>Assessment of the undergraduate major</td>
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<td>Graduate Student Satisfaction Measures</td>
<td>Results of reviews (if any) by national organizations/accrediting agencies</td>
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<td>Profiles Tables</td>
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<td></td>
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<td>Section 1 - Academic</td>
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<tr>
<td></td>
<td></td>
<td>• Rankings/Comparison Groups</td>
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<td>• Program Inventory/ Accreditation</td>
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<td>Section 6 – Faculty and Staff</td>
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<td></td>
<td>• Faculty Honors</td>
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</table>
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APPENDIX B

Comparison of CLAS research metrics
OIRP
12/1/2009

Sponsored Project Expenditures
per Tenured/Tenure-track Faculty FTE
Fiscal Year Trends from FY2004 to FY2008

Page 1

Budgeted Tenured/Tenure Track FTE
Fall 2004
7.75
6.50
4.90
6.00
41.75
8.50
6.00
1.50
29.00
9.97
4.62
2.00
12.00
8.80
0.89
7.50
13.33
18.75
189.76

Fall 2005
8.00
6.75
5.90
6.50
42.00
9.50
6.00
3.00
29.50
9.97
4.75
1.50
9.00
8.50
1.50
6.50
14.00
19.75
192.62

Fall 2006
6.75
6.25
5.90
6.00
39.75
9.50
6.00
3.50
29.50
9.80
3.50
1.50
11.00
9.50
1.50
7.25
13.25
22.50
192.95

Fall 2007
6.75
7.75
6.90
7.50
36.50
9.50
6.00
3.60
29.57
11.30
3.00
1.00
11.00
9.00
2.40
7.25
14.25
22.50
195.77

FY03-04
13.28
398.46
97.38
508.40
33.60
37.19
239.22
22.26
110.05
15.00
1,474.83

FY04-05
8.70
324.85
104.92
11.88
59.42
279.08
185.77
1.00
165.85
385.24
22.41
24.54
1,573.65

FY05-06
20.17
58.15
40.00
477.45
60.57
2.76
56.97
350.98
19.12
298.85
140.07
295.16
48.02
1,868.27

FY06-07
191.76
(0.02)
289.09
35.84
241.61
20.88
54.04
6.32
226.83
8.11
8.01
1,082.48

FY07-08
354.22
32.00
70.93
120.48
292.58
4.98
18.16
7.32
457.62
40.00
1,398.28

Research Expenditures per FTE
3 Year
5 Year
FY 2008 (FY06-08) (FY04-08)
52.477
26.333
16.113
2.803
1.776
2.138
1.328
4.267
39.927
46.826
0.512
1.308
0.153
0.488
19.704
16.213
17.712
4.074
8.051
10.290
25.892
10.704
7.109
1.806
4.980
89.468
104.381
1.650
0.790
0.472
3.050
69.299
73.881
63.120
36.233
32.473
2.807
0.964
2.607
0.865
0.937
7.142
7.481
7.731

Div Total

52.62
24.50
3.50
16.06
14.75
32.00
22.50
165.93

51.40
25.70
3.25
17.31
14.25
30.00
24.50
166.41

1.75
58.23
25.52
3.00
18.20
15.25
34.00
23.00
178.95

1.75
59.95
25.22
3.10
17.85
16.25
34.50
22.50
181.12

2.25
57.55
27.20
3.10
17.47
15.72
34.00
24.00
181.29

10,077.70
4,942.58
116.79
1,171.03
2,633.35
863.72
2,673.68
22,478.84

11,601.03
6,053.15
269.02
1,196.56
2,267.59
885.81
3,864.78
26,137.94

69.51
10,165.59
7,169.85
228.94
1,685.46
2,441.65
826.62
3,914.79
26,502.41

159.62
11,196.84
6,377.42
307.52
2,254.61
2,491.77
607.60
2,964.59
26,359.96

270.71
19,711.99
6,847.10
250.37
3,534.81
1,920.62
661.30
2,876.04
36,072.93

120.316
342.519
251.732
80.764
202.336
122.177
19.450
119.835
198.979

86.929
233.736
261.667
85.524
139.665
145.151
20.444
140.366
164.281

86.929
224.319
244.967
73.519
113.275
154.224
23.374
139.862
157.436

Div Total
CLAS Total

14.50
12.80
15.20
17.50
7.25
20.50
29.80
7.75
14.25
7.25
3.50
150.30
502.05

14.25
11.90
16.45
19.00
6.75
19.50
29.05
8.25
14.75
7.50
3.50
150.90
507.07

15.45
11.90
16.65
18.50
8.25
20.25
29.05
8.00
14.50
7.50
3.50
153.55
525.12

16.96
12.40
14.58
18.50
8.25
18.75
29.55
11.25
16.98
8.50
3.50
159.22
533.29

17.21
10.38
15.45
18.20
7.16
21.35
28.35
11.75
18.00
8.25
4.00
160.10
537.16

460.12
6,441.75
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170.08
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722.84
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36,051.82

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525.23
601.80
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861.23
151.27
45.65
3,265.80
10,913.77
38,356.20

269.68
6,325.40
31.17
124.70
125.92
471.37
880.06
112.25
93.88
3,001.35
11,435.77
48,906.99

15.670
609.384
2.017
6.851
17.587
22.078
31.043
9.553
5.215
363.800
71.429
91.047

23.423
512.631
7.251
7.557
17.702
22.939
30.618
16.948
4.484
407.444
0.050
73.571
80.268

25.228
512.898
10.393
8.242
11.212
29.407
27.345
11.178
7.715
402.491
2.829
75.241
78.010

School
CLAS - Humanites

Department
Fall 2003
African and African-American Studies
7.25
American Studies
5.50
Classics
6.50
East Asian Languages and Cultures
6.50
English
41.00
French and Italian
8.00
Germanic Languages and Literatures
6.00
Global Indigenous Nations Studies
1.00
History
28.25
History of Art
10.47
Humanities and Western Civilization
4.72
Latin American Studies
1.50
Philosophy
11.00
Religious Studies
9.80
Russian, East European and Eurasian Studies
1.02
Slavic Languages and Literatures
7.48
Spanish and Portuguese
11.33
Theatre and Film
18.50
Div Total
185.82

CLAS - Nat. Sci & Math

Bioinformatics
Biological Sciences
Chemistry
Environmental Studies
Geography
Geology
Mathematics
Physics and Astronomy

CLAS - Social Sci

Anthropology
Applied Behavioral Science
Communication Studies
Economics
Linguistics
Political Science
Psychology
Public Administration
Sociology
Speech, Language, and Hearing
Women, Gender and Sexuality Studies

Research Expenditures (in $1,000)

Architecture

Architecture and Urban Planning

27.05

28.15

28.50

29.00

28.50

35.60

54.64

43.95

1.22

2.45

0.086

0.554

0.976

Business

Business

43.33

43.30

53.30

55.50

55.51

663.49

671.83

731.08

597.85

691.63

12.460

12.297

13.373

Education

Curriculum and Teaching
Educational Leadership and Policy Studies
Health, Sport, and Exercise Sciences
Psychology and Research in Education
Special Education
Education Total

9.50
14.25
18.20
41.95

21.00
11.25
9.00
14.25
18.00
73.50

22.00
11.65
11.00
15.25
18.05
77.95

1,104.00
2,500.58
11,998.28
15,602.86

983.30
3,303.25
11,579.23
15,865.78

1,406.12
4,880.20
13,177.21
19,463.53

836.45
2,394.25
648.50
3,339.75
13,497.24
20,716.18

1,239.20
2,272.89
520.68
2,379.71
13,227.51
19,639.99

56.327
195.098
47.334
156.046
732.826
251.956

48.271
203.805
87.298
242.278
735.520
309.306

48.271
203.805
96.136
227.038
700.270
329.204

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9.50
15.00
18.70
43.20

9.50
13.50
17.70
40.70


## Sponsored Project Expenditures
### per Tenured/Tenure-track Faculty FTE
#### Fiscal Year Trends from FY2004 to FY2008

<table>
<thead>
<tr>
<th>School</th>
<th>Department</th>
<th>Budgeted Tenured/Tenure Track FTE</th>
<th>Research Expenditures (in $1,000)</th>
<th>Research Expenditures per FTE</th>
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<td></td>
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<td>Fall 2003</td>
<td>Fall 2004</td>
<td>Fall 2005</td>
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<td>Engineering</td>
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<td>Chemical and Petroleum Engineering</td>
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<td>17.10</td>
<td>16.00</td>
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<tr>
<td></td>
<td>Civil, Environ., and Arch. Engineering</td>
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<td>21.00</td>
<td>22.00</td>
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<td></td>
<td>Electrical Engineering and Computer</td>
<td>28.00</td>
<td>29.00</td>
<td>34.00</td>
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<td>Engineering Management</td>
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<td>1.50</td>
<td>1.50</td>
</tr>
<tr>
<td></td>
<td>Mechanical Engineering</td>
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<td>12.00</td>
<td>13.00</td>
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<td>88.10</td>
<td>95.00</td>
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<td>Fine Arts (Art, Design, Music &amp; Dance)</td>
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<td>Journalism</td>
<td>Journalism</td>
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<td>19.10</td>
<td>17.00</td>
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<td>11.00</td>
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<td>Pharmaceutical Chemistry</td>
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<td>11.75</td>
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<tr>
<td></td>
<td>Pharmacology and Toxicology</td>
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<td>8.00</td>
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<td></td>
<td>Pharmacy Practice</td>
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<td>Total Instr Departments</td>
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<td>869.35</td>
<td>871.01</td>
<td>910.32</td>
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Department of Geography
University of Kansas

Self Study for 2010 Program Review

APPENDIX C

Summary Data Provided by Academic Information Management System
Department of Geography
Summary
ADvisory regarding sensitive data

Note: These reports have been created to give access to data needed by campus decision-makers. Use care in sharing any data from these reports that might be considered confidential, such as financial aid awarded, or data cells that represent fewer than five individuals. When a data cell represents just one individual, details are intentionally suppressed.

Notes and comments for this department and its programs:

1. In Fall 2009, in response to an initiative from the College of Liberal Arts and Sciences, many CLAS departments more accurately recorded the teaching efforts of their graduate teaching assistants who instruct students directly. This change is reflected in the Instructor Workload Information by an increase in GTAs who are instructors of record and a corresponding decrease in GTAs who are not instructors of record.
### Student Credit Hours

<table>
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<tr>
<th>Level</th>
<th>Measure</th>
<th>FY 00-01</th>
<th>FY 01-02</th>
<th>FY 02-03</th>
<th>FY 03-04</th>
<th>FY 04-05</th>
<th>FY 05-06</th>
<th>FY 06-07</th>
<th>FY 07-08</th>
<th>FY 08-09</th>
</tr>
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<tbody>
<tr>
<td>UG Credit Hours</td>
<td>Lower Division (&lt;300)</td>
<td>10,024</td>
<td>9,201</td>
<td>9,409</td>
<td>10,425</td>
<td>10,317</td>
<td>10,521</td>
<td>11,111</td>
<td>10,969</td>
<td>10,819</td>
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<td>Upper Division (300-699)</td>
<td>2,092</td>
<td>2,110</td>
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<td>2,620</td>
<td>2,495</td>
<td>2,454</td>
<td>2,693</td>
<td>2,491</td>
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<td>Undergraduate Total</td>
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<td>11,311</td>
<td>11,858</td>
<td>13,045</td>
<td>12,812</td>
<td>12,975</td>
<td>13,804</td>
<td>13,460</td>
<td>13,794</td>
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<td><strong>Relative Index</strong></td>
<td>87.9%</td>
<td>82.1%</td>
<td>86.0%</td>
<td>94.6%</td>
<td>93.0%</td>
<td>94.1%</td>
<td>100.2%</td>
<td>97.7%</td>
<td>100.0%</td>
</tr>
<tr>
<td>GR Credit Hours</td>
<td>Graduate I (700-899)</td>
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<td>404</td>
<td>362</td>
<td>362</td>
<td>452</td>
<td>397</td>
<td>317</td>
<td>430</td>
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<td>Graduate II (900-999)</td>
<td>345</td>
<td>294</td>
<td>265</td>
<td>238</td>
<td>342</td>
<td>279</td>
<td>304</td>
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<td>Graduate Total</td>
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<td>698</td>
<td>627</td>
<td>600</td>
<td>794</td>
<td>676</td>
<td>621</td>
<td>771</td>
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<td>87.7%</td>
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<td>68.6%</td>
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<td>Total Credit Hours</td>
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<td>81.8%</td>
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<td>92.9%</td>
<td>92.6%</td>
<td>98.2%</td>
<td>96.9%</td>
<td>100.0%</td>
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<td>By Instructor Type</td>
<td>% of Fall UG SCH taught by Ten/Ten Trk Faculty</td>
<td>72.9%</td>
<td>54.0%</td>
<td>65.4%</td>
<td>60.9%</td>
<td>65.9%</td>
<td>44.6%</td>
<td>38.9%</td>
<td>45.6%</td>
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<tr>
<td></td>
<td>% of Fall UG SCH taught by GTAs</td>
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<td>31.4%</td>
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<td>25.7%</td>
<td>18.4%</td>
<td>40.5%</td>
<td>49.3%</td>
<td>39.9%</td>
<td>37.9%</td>
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<tr>
<td></td>
<td>% of Fall UG SCH taught by Other Faculty</td>
<td>3.9%</td>
<td>14.6%</td>
<td>15.6%</td>
<td>13.4%</td>
<td>15.8%</td>
<td>14.8%</td>
<td>11.8%</td>
<td>14.5%</td>
<td>16.5%</td>
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<td>% of Fall Grad SCH taught by Ten/Ten Trk Faculty</td>
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<td>80.9%</td>
<td>94.9%</td>
<td>99.6%</td>
<td>99.7%</td>
<td>96.7%</td>
<td>98.8%</td>
<td>100.0%</td>
<td>100.0%</td>
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<tr>
<td>By Major Type</td>
<td>% of Department SCH taken by UG majors</td>
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<td>13.7%</td>
<td>14.9%</td>
<td>10.7%</td>
<td>11.8%</td>
<td>13.7%</td>
<td>13.6%</td>
<td>14.1%</td>
<td>14.0%</td>
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<td></td>
<td>% of Department SCH taken by GR majors</td>
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<td>6.2%</td>
<td>5.6%</td>
<td>5.0%</td>
<td>6.3%</td>
<td>5.7%</td>
<td>5.6%</td>
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<td>6.7%</td>
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<td>% of Department SCH taken by non-majors</td>
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<td>79.5%</td>
<td>84.2%</td>
<td>81.9%</td>
<td>80.7%</td>
<td>80.9%</td>
<td>79.9%</td>
<td>79.3%</td>
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<td>At Edwards Campus</td>
<td>% of FY SCH at KUEC</td>
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<td>0.4%</td>
<td>0.6%</td>
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## Budgeted Faculty

### Fall Semester

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<th>Fall 2006</th>
<th>Fall 2007</th>
<th>Fall 2008</th>
<th>Fall 2009</th>
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<td>18</td>
<td>20</td>
<td>21</td>
<td>21</td>
<td>20</td>
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<td>22</td>
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<td>2</td>
<td>3</td>
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<td>Total Department Faculty</td>
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<td>88.5%</td>
<td>98.7%</td>
<td>94.7%</td>
<td>92.9%</td>
<td>96.4%</td>
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<td>15</td>
<td>16</td>
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<td>% of Tenured Faculty that are Women</td>
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<td>14.3%</td>
<td>14.3%</td>
<td>13.3%</td>
<td>12.5%</td>
<td>12.5%</td>
<td>12.5%</td>
<td>12.5%</td>
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<td>% of Tenured Faculty that are Minority</td>
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### Instructional SCH by Faculty type

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## Instructor Workload Information

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### Organized Sections per FTE ratio by Faculty type

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### Comparative Faculty Workload Information

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<th>Level</th>
<th>Measure</th>
<th>Fall 2004</th>
<th>Fall 2005</th>
<th>Fall 2006</th>
<th>Fall 2007</th>
<th>4 Year Weighted Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>SCH per FTE</td>
<td>KU ratio</td>
<td>266.2</td>
<td>204.9</td>
<td>178.1</td>
<td>205.5</td>
<td>213.3</td>
</tr>
<tr>
<td></td>
<td>AAU ratio</td>
<td>281.5</td>
<td>273.3</td>
<td>239.0</td>
<td>224.7</td>
<td>254.7</td>
</tr>
<tr>
<td></td>
<td>KU as % of AAU</td>
<td>94.6%</td>
<td>75.0%</td>
<td>74.5%</td>
<td>91.5%</td>
<td>83.7%</td>
</tr>
<tr>
<td>Org. Sect. per FTE</td>
<td>KU ratio</td>
<td>1.8</td>
<td>1.6</td>
<td>2.0</td>
<td>1.9</td>
<td>1.8</td>
</tr>
<tr>
<td></td>
<td>AAU ratio</td>
<td>2.2</td>
<td>2.7</td>
<td>1.9</td>
<td>1.7</td>
<td>2.1</td>
</tr>
<tr>
<td></td>
<td>KU as % of AAU</td>
<td>81.8%</td>
<td>59.3%</td>
<td>105.3%</td>
<td>111.8%</td>
<td>85.7%</td>
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</table>

#### All Faculty in unit

<table>
<thead>
<tr>
<th>Level</th>
<th>Measure</th>
<th>Fall 2004</th>
<th>Fall 2005</th>
<th>Fall 2006</th>
<th>Fall 2007</th>
<th>4 Year Weighted Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>SCH per FTE</td>
<td>KU ratio</td>
<td>246.7</td>
<td>252.5</td>
<td>258.5</td>
<td>253.6</td>
<td>252.9</td>
</tr>
<tr>
<td></td>
<td>AAU ratio</td>
<td>261.5</td>
<td>250.8</td>
<td>225.1</td>
<td>232.8</td>
<td>242.2</td>
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<tr>
<td></td>
<td>KU as % of AAU</td>
<td>94.3%</td>
<td>100.7%</td>
<td>114.8%</td>
<td>108.9%</td>
<td>104.4%</td>
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<tr>
<td>Org. Sect. per FTE</td>
<td>KU ratio</td>
<td>2.7</td>
<td>2.5</td>
<td>2.6</td>
<td>2.6</td>
<td>2.6</td>
</tr>
<tr>
<td></td>
<td>AAU ratio</td>
<td>3.2</td>
<td>3.8</td>
<td>2.8</td>
<td>2.7</td>
<td>3.1</td>
</tr>
<tr>
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<td>KU as % of AAU</td>
<td>84.4%</td>
<td>65.8%</td>
<td>92.9%</td>
<td>96.3%</td>
<td>83.9%</td>
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#### Comparison Group

<table>
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<tr>
<th># of AAU Insts</th>
<th>Institutions</th>
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<tr>
<td>7</td>
<td>Colorado, Missouri, North Carolina, Oregon, SUNY-Buffalo, Texas, Wisconsin</td>
</tr>
<tr>
<td>7</td>
<td>Arizona, Colorado, Missouri, North Carolina, Oregon, Texas, Wisconsin</td>
</tr>
<tr>
<td>7</td>
<td>Colorado, Missouri, North Carolina, Oregon, SUNY-Buffalo, Texas, Wisconsin</td>
</tr>
<tr>
<td>8</td>
<td>Arizona, Colorado, Missouri, North Carolina, Oregon, SUNY-Buffalo, Texas, Wisconsin</td>
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</tbody>
</table>
Financial Aid Awarded

to Students enrolled during Fall, Spring or Summer

Undergraduate Information

<table>
<thead>
<tr>
<th>Measure</th>
<th>FY 2006</th>
<th>FY 2007</th>
<th>FY 2008</th>
<th>FY 2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Aid Awarded (All Types)</td>
<td>$1,012,464</td>
<td>$977,086</td>
<td>$1,186,299</td>
<td>$1,459,191</td>
</tr>
<tr>
<td>% of Students in this Unit Receiving</td>
<td>64.9%</td>
<td>60.3%</td>
<td>57.3%</td>
<td>62.9%</td>
</tr>
<tr>
<td>Avg Amt Received (Kansas residents)</td>
<td>$8,430</td>
<td>$8,626</td>
<td>$9,613</td>
<td>$10,573</td>
</tr>
<tr>
<td>Avg Amt Received (Nonresidents)</td>
<td>$11,032</td>
<td>$11,873</td>
<td>$12,962</td>
<td>$16,392</td>
</tr>
<tr>
<td>Total Federal Grants</td>
<td>$114,830</td>
<td>$111,400</td>
<td>$112,520</td>
<td>$138,889</td>
</tr>
<tr>
<td>% of Students in this Unit Receiving</td>
<td>22.4%</td>
<td>17.9%</td>
<td>16.6%</td>
<td>15.3%</td>
</tr>
<tr>
<td>Avg Amt Received (Kansas residents)</td>
<td>$3,041</td>
<td>$3,525</td>
<td>$3,461</td>
<td>$4,122</td>
</tr>
<tr>
<td>Avg Amt Received (Nonresidents)</td>
<td>$1,783</td>
<td>$2,825</td>
<td>$3,219</td>
<td>$6,341</td>
</tr>
<tr>
<td>Total Need-Based Loans</td>
<td>$255,937</td>
<td>$217,177</td>
<td>$234,526</td>
<td>$331,949</td>
</tr>
<tr>
<td>% of Students in this Unit Receiving</td>
<td>39.1%</td>
<td>33.0%</td>
<td>30.7%</td>
<td>38.6%</td>
</tr>
<tr>
<td>Avg Amt Received (Kansas residents)</td>
<td>$3,711</td>
<td>$3,735</td>
<td>$3,912</td>
<td>$4,201</td>
</tr>
<tr>
<td>Avg Amt Received (Nonresidents)</td>
<td>$4,111</td>
<td>$3,380</td>
<td>$3,618</td>
<td>$4,531</td>
</tr>
<tr>
<td>Total Non-Need-Based Loans (includes PLUS and KUEA loans)</td>
<td>$442,755</td>
<td>$410,360</td>
<td>$541,301</td>
<td>$678,581</td>
</tr>
<tr>
<td>% of Students in this Unit Receiving</td>
<td>36.8%</td>
<td>30.7%</td>
<td>31.2%</td>
<td>42.1%</td>
</tr>
<tr>
<td>Avg Amt Received (Kansas residents)</td>
<td>$6,223</td>
<td>$6,833</td>
<td>$7,457</td>
<td>$7,172</td>
</tr>
<tr>
<td>Avg Amt Received (Nonresidents)</td>
<td>$9,003</td>
<td>$12,590</td>
<td>$17,132</td>
<td>$12,475</td>
</tr>
<tr>
<td>Total Institutional Grants and Scholarships (includes KU Tuition Grant; excludes athletic grants)</td>
<td>$105,018</td>
<td>$139,614</td>
<td>$155,596</td>
<td>$199,676</td>
</tr>
<tr>
<td>% of Students in this Unit Receiving</td>
<td>29.9%</td>
<td>31.8%</td>
<td>30.2%</td>
<td>32.2%</td>
</tr>
<tr>
<td>Avg Amt Received (Kansas residents)</td>
<td>$1,995</td>
<td>$2,437</td>
<td>$2,448</td>
<td>$2,613</td>
</tr>
<tr>
<td>Avg Amt Received (Nonresidents)</td>
<td>$2,139</td>
<td>$2,536</td>
<td>$3,240</td>
<td>$5,928</td>
</tr>
<tr>
<td>Total State Aid (Grants and Scholarships)</td>
<td>$20,719</td>
<td>$21,425</td>
<td>$25,071</td>
<td>$29,550</td>
</tr>
<tr>
<td>% of Students in this Unit Receiving</td>
<td>10.9%</td>
<td>11.7%</td>
<td>11.6%</td>
<td>11.4%</td>
</tr>
<tr>
<td>Avg Amt Received</td>
<td>$1,090</td>
<td>$1,020</td>
<td>$1,090</td>
<td>$1,285</td>
</tr>
<tr>
<td>% of Students Receiving Aid Who Are Minorities</td>
<td>10.6%</td>
<td>7.4%</td>
<td>7.9%</td>
<td>8.7%</td>
</tr>
<tr>
<td>% of Students Receiving Aid Who Are Kansas Residents</td>
<td>79.6%</td>
<td>87.0%</td>
<td>76.3%</td>
<td>84.3%</td>
</tr>
</tbody>
</table>
### Financial Aid Awarded

to Students enrolled during Fall, Spring or Summer

#### Graduate/1st Professional Information

<table>
<thead>
<tr>
<th>Measure</th>
<th>FY 2006</th>
<th>FY 2007</th>
<th>FY 2008</th>
<th>FY 2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Aid Awarded (All Types)</td>
<td>$241,726</td>
<td>$226,573</td>
<td>$406,381</td>
<td>$394,039</td>
</tr>
<tr>
<td>% of Students in this Unit Receiving</td>
<td>33.3%</td>
<td>30.7%</td>
<td>44.2%</td>
<td>37.2%</td>
</tr>
<tr>
<td>Avg Amt Received (Kansas residents)</td>
<td>$6,704</td>
<td>$7,266</td>
<td>$10,393</td>
<td>$8,500</td>
</tr>
<tr>
<td>Avg Amt Received (Nonresidents)</td>
<td>$10,822</td>
<td>$10,982</td>
<td>$10,913</td>
<td>$13,097</td>
</tr>
<tr>
<td>Total Need-Based Loans</td>
<td>$111,589</td>
<td>$94,611</td>
<td>$181,403</td>
<td>$165,031</td>
</tr>
<tr>
<td>% of Students in this Unit Receiving</td>
<td>20.0%</td>
<td>17.3%</td>
<td>24.4%</td>
<td>22.3%</td>
</tr>
<tr>
<td>Avg Amt Received (Kansas residents)</td>
<td>$6,250</td>
<td>$6,438</td>
<td>$8,750</td>
<td>$7,891</td>
</tr>
<tr>
<td>Avg Amt Received (Nonresidents)</td>
<td>$8,034</td>
<td>$7,651</td>
<td>$8,537</td>
<td>$7,823</td>
</tr>
<tr>
<td>Total Non-Need-Based Loans (includes PLUS and KUEA loans)</td>
<td>$61,147</td>
<td>$83,272</td>
<td>$112,805</td>
<td>$132,601</td>
</tr>
<tr>
<td>% of Students in this Unit Receiving</td>
<td>16.0%</td>
<td>17.3%</td>
<td>15.1%</td>
<td>13.8%</td>
</tr>
<tr>
<td>Avg Amt Received (Kansas residents)</td>
<td>$5,838</td>
<td>$4,587</td>
<td>$10,814</td>
<td>$5,663</td>
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<tr>
<td>Avg Amt Received (Nonresidents)</td>
<td>$4,947</td>
<td>$6,951</td>
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</tr>
<tr>
<td>Total Institutional Grants and Scholarships (includes KU Tuition Grant; excludes athletic grants)</td>
<td>$68,990</td>
<td>$44,190</td>
<td>$107,173</td>
<td>$94,107</td>
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<td>% of Students in this Unit Receiving</td>
<td>12.0%</td>
<td>17.3%</td>
<td>30.2%</td>
<td>21.3%</td>
</tr>
<tr>
<td>Avg Amt Received (Kansas residents)</td>
<td>$2,000</td>
<td>$2,283</td>
<td>$2,746</td>
<td>$1,107</td>
</tr>
<tr>
<td>Avg Amt Received (Nonresidents)</td>
<td>$9,284</td>
<td>$3,734</td>
<td>$4,851</td>
<td>$6,643</td>
</tr>
<tr>
<td>% of Students Receiving Aid Who Are Minorities</td>
<td>5.7%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% of Students Receiving Aid Who Are Kansas Residents</td>
<td>28.0%</td>
<td>30.4%</td>
<td>42.1%</td>
<td>40.0%</td>
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## Majors and Degree Counts

### Geography -- Undergraduate Information

#### Geography Undergraduate Declared Major Counts

<table>
<thead>
<tr>
<th>Level</th>
<th>Measure</th>
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<th>Fall 2001</th>
<th>Fall 2002</th>
<th>Fall 2003</th>
<th>Fall 2004</th>
<th>Fall 2005</th>
<th>Fall 2006</th>
<th>Fall 2007</th>
<th>Fall 2008</th>
<th>Fall 2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>Undergraduate</td>
<td>Freshmen/Sophomore</td>
<td>67</td>
<td>55</td>
<td>60</td>
<td>69</td>
<td>66</td>
<td>70</td>
<td>60</td>
<td>74</td>
<td>65</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Junior/Senior/5th Year</td>
<td>76</td>
<td>88</td>
<td>102</td>
<td>90</td>
<td>93</td>
<td>100</td>
<td>99</td>
<td>123</td>
<td>123</td>
<td>131</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>143</td>
<td>143</td>
<td>162</td>
<td>159</td>
<td>159</td>
<td>166</td>
<td>169</td>
<td>183</td>
<td>197</td>
<td>196</td>
</tr>
<tr>
<td>Relative Index</td>
<td></td>
<td>73.0%</td>
<td>73.0%</td>
<td>82.7%</td>
<td>81.1%</td>
<td>81.1%</td>
<td>84.7%</td>
<td>86.2%</td>
<td>93.4%</td>
<td>100.5%</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

|                | Jr/Sr Mean Max Comp. Test Score (ACT Scale) | 23.9   | 23.8   | 23.8   | 24.1   | 23.7   | 24.5   | 25.2   | 24.7   | 24.4   | 24.2   |
| % reporting scores |                                      | 71.1%   | 73.9%   | 79.4%   | 77.8%   | 69.9%   | 72.0%   | 74.7%   | 78.9%   | 76.4%   | 80.9%   |
| % Minority        |                                      | 4.2%    | 6.3%    | 4.3%    | 6.3%    | 8.2%    | 8.4%    | 7.7%    | 4.9%    | 8.1%    | 9.2%    |
| % Am. Ind, Black, Hisp. |                                  | 4.2%    | 4.9%    | 3.7%    | 5.7%    | 6.9%    | 7.2%    | 7.7%    | 3.8%    | 5.6%    | 6.1%    |
| % International   |                                      | 0.7%    | 2.1%    | 3.7%    | 3.8%    | 2.5%    | 1.2%    | 1.2%    | 1.1%    | 0.5%    | 2.0%    |
| % Female          |                                      | 32.9%   | 30.8%   | 30.2%   | 30.8%   | 27.0%   | 29.5%   | 32.0%   | 24.0%   | 28.9%   | 32.1%   |
| % KS residents    |                                      | 79.7%   | 81.8%   | 80.2%   | 81.8%   | 78.0%   | 77.7%   | 83.4%   | 76.5%   | 83.8%   | 82.7%   |
| Mean Age          |                                      | 22.0    | 22.2    | 22.4    | 22.1    | 22.3    | 22.6    | 22.3    | 21.9    | 22.3    | 22.1    |

#### Geography Undergraduate Degree Counts

<table>
<thead>
<tr>
<th>Level</th>
<th>Measure</th>
<th>FY 00-01</th>
<th>FY 01-02</th>
<th>FY 02-03</th>
<th>FY 03-04</th>
<th>FY 04-05</th>
<th>FY 05-06</th>
<th>FY 06-07</th>
<th>FY 07-08</th>
<th>FY 08-09</th>
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<tbody>
<tr>
<td>Baccalaureate</td>
<td>FY Degrees</td>
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<td>26</td>
<td>40</td>
<td>37</td>
<td>32</td>
<td>37</td>
<td>41</td>
<td>37</td>
<td>47</td>
</tr>
<tr>
<td>Relative Index</td>
<td></td>
<td>66.0%</td>
<td>55.3%</td>
<td>85.1%</td>
<td>78.7%</td>
<td>68.1%</td>
<td>78.7%</td>
<td>87.2%</td>
<td>78.7%</td>
<td>100.0%</td>
</tr>
<tr>
<td>% Minority</td>
<td></td>
<td>3.2%</td>
<td>7.7%</td>
<td>2.5%</td>
<td>0.0%</td>
<td>6.3%</td>
<td>0.0%</td>
<td>9.8%</td>
<td>5.4%</td>
<td>4.3%</td>
</tr>
<tr>
<td>% Am. Ind, Black, Hisp.</td>
<td></td>
<td>3.2%</td>
<td>3.8%</td>
<td>2.5%</td>
<td>0.0%</td>
<td>3.1%</td>
<td>0.0%</td>
<td>9.8%</td>
<td>5.4%</td>
<td>2.1%</td>
</tr>
<tr>
<td>% International</td>
<td></td>
<td>0.0%</td>
<td>3.8%</td>
<td>2.5%</td>
<td>2.7%</td>
<td>12.5%</td>
<td>0.0%</td>
<td>2.4%</td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>% Female</td>
<td></td>
<td>32.3%</td>
<td>30.8%</td>
<td>37.5%</td>
<td>27.0%</td>
<td>28.1%</td>
<td>16.2%</td>
<td>39.0%</td>
<td>13.5%</td>
<td>25.5%</td>
</tr>
<tr>
<td>Mean Age at Graduation</td>
<td></td>
<td>25.6</td>
<td>24.5</td>
<td>25.4</td>
<td>24.4</td>
<td>24.4</td>
<td>24.6</td>
<td>25.4</td>
<td>23.4</td>
<td>25.3</td>
</tr>
<tr>
<td>Mean GPA at Graduation</td>
<td></td>
<td>3.1</td>
<td>3.0</td>
<td>2.8</td>
<td>3.0</td>
<td>2.9</td>
<td>2.9</td>
<td>2.9</td>
<td>3.1</td>
<td>3.0</td>
</tr>
<tr>
<td>Median Cum. Hours at Graduation</td>
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<td>131.0</td>
<td>132.5</td>
<td>131.0</td>
<td>129.0</td>
<td>132.0</td>
<td>137.0</td>
<td>139.0</td>
<td>131.0</td>
<td>129.0</td>
</tr>
<tr>
<td>25%tile Cum. Hours at Graduation</td>
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<td>126.0</td>
<td>126.0</td>
<td>125.0</td>
<td>125.0</td>
<td>126.5</td>
<td>127.0</td>
<td>131.0</td>
<td>126.0</td>
<td>126.0</td>
</tr>
<tr>
<td>75%tile Cum. Hours at Graduation</td>
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<td>151.5</td>
<td>145.0</td>
<td>141.5</td>
<td>138.0</td>
<td>143.0</td>
<td>157.0</td>
<td>151.0</td>
<td>143.0</td>
<td>140.0</td>
</tr>
<tr>
<td>Mean Years to Degree</td>
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<td>5.4</td>
<td>5.0</td>
<td>5.6</td>
<td>5.3</td>
<td>5.4</td>
<td>4.9</td>
<td>6.5</td>
<td>4.8</td>
<td>4.9</td>
</tr>
<tr>
<td>Median Years to Degree</td>
<td></td>
<td>4.5</td>
<td>4.5</td>
<td>4.4</td>
<td>4.0</td>
<td>5.0</td>
<td>4.5</td>
<td>5.0</td>
<td>4.5</td>
<td>4.5</td>
</tr>
</tbody>
</table>
# Geography -- Graduate Information

## Geography Graduate/1st Professional Major Counts

<table>
<thead>
<tr>
<th>Level</th>
<th>Measure</th>
<th>Fall 2000</th>
<th>Fall 2001</th>
<th>Fall 2002</th>
<th>Fall 2003</th>
<th>Fall 2004</th>
<th>Fall 2005</th>
<th>Fall 2006</th>
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<tr>
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<td>0.0%</td>
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<td>% International</td>
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## Majors and Degree Counts

### Academic Program: Atmospheric Sciences -- Undergraduate Information

#### Atmospheric Sciences Undergraduate Declared Major Counts

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<th>Fall 2002</th>
<th>Fall 2003</th>
<th>Fall 2004</th>
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<th>Fall 2009</th>
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Relative Index: 101.2% 96.3% 103.7% 104.9% 108.6% 116.1% 96.3% 97.5% 100.0%

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<th>Fall 2009</th>
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% reporting scores: 69.0% 72.5% 75.0% 65.7% 70.5% 75.6% 75.0% 67.5% 69.0%

% Minority: 3.7% 5.1% 4.8% 10.6% 10.2% 8.5% 1.3% 6.3% 8.6%

% Am. Ind, Black, Hisp.: 3.7% 2.6% 3.6% 7.0% 8.2% 10.2% 8.5% 1.3% 5.1% 7.4%

% International: 1.2% 2.6% 1.2% 0.0% 0.0% 1.1% 1.3% 0.0% 1.2%

% Female: 32.9% 33.3% 38.1% 38.4% 35.3% 39.8% 40.4% 33.3% 35.4% 39.5%

% KS residents: 79.3% 84.6% 81.0% 82.6% 77.3% 81.9% 73.1% 78.5% 80.2%

Mean Age: 20.9 21.3 21.1 21.1 20.8 21.0 20.7 20.6 21.4 21.5

#### Atmospheric Sciences Undergraduate Degree Counts

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<tr>
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<th>FY 01-02</th>
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<td>10</td>
<td>11</td>
<td>10</td>
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Relative Index: 45.5% 100.0% 118.2% 109.1% 81.8% 90.9% 100.0%

% Minority: 0.0% 18.2% 0.0% 0.0% 11.1% 0.0% 22.2% 10.0% 0.0%

% Am. Ind, Black, Hisp.: 0.0% 9.1% 0.0% 0.0% 0.0% 0.0% 0.0% 22.2% 0.0%

% Female: 20.0% 18.2% 38.5% 33.3% 55.6% 40.0% 55.6% 20.0% 45.5%

Mean Age at Graduation: 23.0 25.7 22.7 23.0 22.6 23.5 23.8 22.8 24.1

Mean GPA at Graduation: 2.8 2.9 2.9 3.0 3.2 3.0 3.3 3.2 3.2

Median Cum. Hours at Graduation: 136.0 133.0 130.0 139.5 128.0 129.0 134.0 136.0 136.0

25%tile Cum. Hours at Graduation: 129.0 125.0 125.0 129.5 127.0 126.0 131.0 127.0 128.0

75%tile Cum. Hours at Graduation: 151.5 160.0 140.0 155.8 135.0 158.2 140.0 142.0 147.0

Mean Years to Degree: 5.3 4.3 4.9 4.8 4.4 4.2 6.5 4.8 4.5

Median Years to Degree: 5.3 4.0 4.0 4.5 4.0 4.0 4.5 4.3 4.0

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Graduate Admissions Yield

Academic Program: Atmospheric Sciences

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<th>Summer/Fall 2006</th>
<th>Summer/Fall 2007</th>
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<tr>
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Applied to Admitted Yield: 100.0%
Admitted to Enrolled Yield: 33.3%
# Majors and Degree Counts

**Academic Program: Geography -- Undergraduate Information**

## Geography Undergraduate Declared Major Counts

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<tr>
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<th>Measure</th>
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<th>Fall 2007</th>
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<th>Fall 2009</th>
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<td>60.3%</td>
<td>62.8%</td>
<td>65.3%</td>
<td>65.3%</td>
<td>93.4%</td>
<td>102.5%</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

- **Jr/Sr Mean Max Comp. Test Score (ACT Scale)**

- **% reporting scores**
  - Undergraduate: 72.3%, 75.0%, 82.3%, 79.6%, 73.3%, 73.7%, 72.6%, 81.1%, 79.8%, 86.0%

- **% Minority**
  - Undergraduate: 4.8%, 7.8%, 3.8%, 4.1%, 5.3%, 6.3%, 6.3%, 7.1%, 8.9%, 9.9%

- **% Am. Ind, Black, Hisp.**
  - Undergraduate: 4.8%, 7.6%, 3.8%, 4.1%, 5.3%, 6.3%, 6.3%, 7.1%, 5.6%, 5.8%

- **% International**
  - Undergraduate: 0.0%, 1.5%, 6.3%, 6.8%, 5.3%, 2.5%, 1.3%, 0.9%, 0.8%, 2.5%

- **% Female**
  - Undergraduate: 32.3%, 27.3%, 21.5%, 21.9%, 19.7%, 19.0%, 21.5%, 19.5%, 26.6%, 28.9%

- **% KS residents**
  - Undergraduate: 80.6%, 78.8%, 78.5%, 80.8%, 75.0%, 78.5%, 83.5%, 77.9%, 86.3%, 82.6%

- **Mean Age**
  - Undergraduate: 23.5, 23.2, 23.6, 23.4, 23.9, 24.5, 24.2, 22.7, 22.9, 22.5

## Geography Undergraduate Degree Counts

<table>
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<tr>
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<th>FY 01-02</th>
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<th>FY 03-04</th>
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<td>41.7%</td>
<td>75.0%</td>
<td>69.4%</td>
<td>63.9%</td>
<td>75.0%</td>
<td>88.9%</td>
<td>75.0%</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

- **% Minority**
  - Baccalaureate: 3.8%, 0.0%, 3.7%, 0.0%, 4.3%, 0.0%, 6.3%, 3.7%, 5.6%

- **% Am. Ind, Black, Hisp.**
  - Baccalaureate: 3.8%, 0.0%, 3.7%, 0.0%, 4.3%, 0.0%, 6.3%, 3.7%, 2.8%

- **% International**
  - Baccalaureate: 0.0%, 6.7%, 3.7%, 0.0%, 17.4%, 0.0%, 3.1%, 0.0%, 0.0%

- **% Female**
  - Baccalaureate: 34.6%, 40.0%, 37.0%, 24.0%, 17.4%, 7.4%, 34.4%, 11.1%, 19.4%

- **Mean Age at Graduation**

- **Mean GPA at Graduation**
  - Baccalaureate: 3.1, 3.1, 2.8, 3.0, 2.7, 2.9, 2.8, 3.0, 2.9

- **Median Cum. Hours at Graduation**
  - Baccalaureate: 130.0, 131.0, 132.0, 127.0, 132.0, 137.0, 140.5, 130.0, 128.5

- **25%tile Cum. Hours at Graduation**
  - Baccalaureate: 125.0, 126.0, 125.0, 124.0, 125.0, 129.0, 131.0, 126.0, 125.0

- **75%tile Cum. Hours at Graduation**
  - Baccalaureate: 142.0, 145.0, 143.0, 132.0, 147.0, 157.0, 152.0, 147.0, 139.4

- **Mean Years to Degree**
  - Baccalaureate: 5.4, 5.3, 6.0, 5.6, 6.0, 5.1, 6.6, 4.8, 5.0

- **Median Years to Degree**
  - Baccalaureate: 4.5, 5.0, 5.0, 4.0, 5.0, 4.5, 5.1, 4.8, 4.5

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Source: OIRP DEMIS databases
# Majors and Degree Counts

## Academic Program: Geography -- Graduate Information

### Geography Graduate/1st Professional Major Counts

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<th>% Minority</th>
<th>% Am. Ind, Black, Hisp.</th>
<th>% International</th>
<th>% Female</th>
<th>% KS residents</th>
<th>Mean Verbal GRE</th>
<th>Mean Quant. GRE</th>
<th>Mean Essay GRE</th>
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Graduate Admissions Yield

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Undergraduate Level Student Satisfaction Measures

Comparative results from the Senior Surveys

Overall quality of instruction in major

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<td>1992-2000</td>
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<td>2005</td>
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<tr>
<td>2009</td>
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</table>

Overall education at KU

<table>
<thead>
<tr>
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<th>Neutral</th>
<th>Very Unsatisf</th>
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<td>2009</td>
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Intell challenge of major courses

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<th>Neutral</th>
<th>Very Unsatisf</th>
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Integration of major courses

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<tr>
<td>2009</td>
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Ease of meeting with instructors

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<tr>
<th>Year</th>
<th>Very Satisf</th>
<th>Neutral</th>
<th>Very Unsatisf</th>
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<tr>
<td>2009</td>
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</table>

# of courses in major

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<thead>
<tr>
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<th>Very Satisf</th>
<th>Neutral</th>
<th>Very Unsatisf</th>
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<tr>
<td>2009</td>
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</table>

Availability of major courses

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<th>Very Unsatisf</th>
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<tr>
<td>2009</td>
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Ease of obtaining Gen Ed courses

<table>
<thead>
<tr>
<th>Year</th>
<th>Very Satisf</th>
<th>Neutral</th>
<th>Very Unsatisf</th>
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<tbody>
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<td>1992-2000</td>
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</tr>
<tr>
<td>2009</td>
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</table>

Availability of personal interest courses

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<thead>
<tr>
<th>Year</th>
<th>Very Satisf</th>
<th>Neutral</th>
<th>Very Unsatisf</th>
</tr>
</thead>
<tbody>
<tr>
<td>1992-2000</td>
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<td>11</td>
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<tr>
<td>2009</td>
<td>22</td>
<td>10</td>
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</table>

Helpfulness of frosh/soph advisor

<table>
<thead>
<tr>
<th>Year</th>
<th>Very Satisf</th>
<th>Neutral</th>
<th>Very Unsatisf</th>
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</thead>
<tbody>
<tr>
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</tr>
<tr>
<td>2009</td>
<td>22</td>
<td>10</td>
<td>11</td>
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</table>

Helpfulness of upper division advisor

<table>
<thead>
<tr>
<th>Year</th>
<th>Very Satisf</th>
<th>Neutral</th>
<th>Very Unsatisf</th>
</tr>
</thead>
<tbody>
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</tr>
<tr>
<td>2009</td>
<td>22</td>
<td>10</td>
<td>11</td>
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</table>
Undergraduate Level Student Satisfaction Measures

Comparative results from the Senior Surveys

KU Undergraduates overall

<table>
<thead>
<tr>
<th>2005</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td># of courses offered in my major</td>
<td>Integration of courses in major</td>
</tr>
<tr>
<td>Obtaining courses in major</td>
<td>Qual of instr in major</td>
</tr>
<tr>
<td>Intell chall of courses in major</td>
<td>Overall education at KU</td>
</tr>
<tr>
<td>Ease meeting with instructor</td>
<td>Intell chall of courses in major</td>
</tr>
<tr>
<td>Helpfulness of Fr/So advisor</td>
<td>Ease meeting with instructor</td>
</tr>
<tr>
<td>Avail of personal interest crses</td>
<td>Ease of obtaining Gen Ed courses</td>
</tr>
<tr>
<td>Helpfulness of UD advisor</td>
<td>Qual of instr in major</td>
</tr>
<tr>
<td>Helpfulness of Fr/So advisor</td>
<td>Helpfulness of UD advisor</td>
</tr>
<tr>
<td>Obtaining courses in major</td>
<td>Helpfulness of Fr/So advisor</td>
</tr>
<tr>
<td># of courses offered in my major</td>
<td>Helpfulness of Fr/So advisor</td>
</tr>
<tr>
<td>Overall education at KU</td>
<td>Helpfulness of Fr/So advisor</td>
</tr>
<tr>
<td>Intell chall of courses in major</td>
<td>Helpfulness of Fr/So advisor</td>
</tr>
<tr>
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</tr>
<tr>
<td>Intell chall of courses in major</td>
<td>Helpfulness of Fr/So advisor</td>
</tr>
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</table>
Graduate Student Satisfaction Measures

Comparative results from the Spring 2005 and Fall 2009 Graduate Student Surveys

Mean response charts with 95% confidence intervals for each survey year.

University mean: Bar color legend: yellow below 25th percentile; blue between 25-75th percentiles; purple above 75th percentile.

Overall program quality

<table>
<thead>
<tr>
<th>Category</th>
<th>2005 Mean</th>
<th>2009 Mean</th>
</tr>
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<tbody>
<tr>
<td>Excellent</td>
<td>4.18</td>
<td>4.25</td>
</tr>
<tr>
<td>Very Good</td>
<td>4.25</td>
<td>4.06</td>
</tr>
<tr>
<td>Good</td>
<td>3.18</td>
<td>3.83</td>
</tr>
<tr>
<td>Fair</td>
<td>2.14</td>
<td>2.30</td>
</tr>
<tr>
<td>Poor</td>
<td>1.00</td>
<td>1.30</td>
</tr>
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</table>

Quality of graduate teaching by faculty

<table>
<thead>
<tr>
<th>Category</th>
<th>2005 Mean</th>
<th>2009 Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Excellent</td>
<td>4.36</td>
<td>4.06</td>
</tr>
<tr>
<td>Very Good</td>
<td>4.06</td>
<td>3.83</td>
</tr>
<tr>
<td>Good</td>
<td>3.18</td>
<td>3.83</td>
</tr>
<tr>
<td>Fair</td>
<td>2.14</td>
<td>2.30</td>
</tr>
<tr>
<td>Poor</td>
<td>1.00</td>
<td>1.30</td>
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</table>

Quality of academic advising and guidance

<table>
<thead>
<tr>
<th>Category</th>
<th>2005 Mean</th>
<th>2009 Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Excellent</td>
<td>3.18</td>
<td>3.83</td>
</tr>
<tr>
<td>Very Good</td>
<td>3.83</td>
<td>3.50</td>
</tr>
<tr>
<td>Good</td>
<td>2.30</td>
<td>3.00</td>
</tr>
<tr>
<td>Fair</td>
<td>1.30</td>
<td>1.50</td>
</tr>
<tr>
<td>Poor</td>
<td>0.00</td>
<td>0.30</td>
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Overall, climate of program is positive

<table>
<thead>
<tr>
<th>Agreement Level</th>
<th>2005 Mean</th>
<th>2009 Mean</th>
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<tbody>
<tr>
<td>Strongly Agree</td>
<td>4.00</td>
<td>4.36</td>
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<tr>
<td>Agree</td>
<td>3.83</td>
<td>3.60</td>
</tr>
<tr>
<td>Ambiv.</td>
<td>3.50</td>
<td>3.30</td>
</tr>
<tr>
<td>Disagree</td>
<td>2.30</td>
<td>2.00</td>
</tr>
<tr>
<td>Strongly Disagree</td>
<td>1.00</td>
<td>1.30</td>
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Advised on how to search for a job?

<table>
<thead>
<tr>
<th>Satisfaction Level</th>
<th>2005 Mean</th>
<th>2009 Mean</th>
<th>% Participated</th>
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</thead>
<tbody>
<tr>
<td>Very Satisfied</td>
<td>3.87</td>
<td>3.30</td>
<td>27.3%</td>
</tr>
<tr>
<td>Generally Satisfied</td>
<td>3.30</td>
<td>3.00</td>
<td>28.6%</td>
</tr>
<tr>
<td>Generally Dissatisfied</td>
<td>2.67</td>
<td>2.30</td>
<td>29.3%</td>
</tr>
<tr>
<td>Very Dissatisfied</td>
<td>1.00</td>
<td>1.30</td>
<td>30.0%</td>
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</table>

Select KU if starting over?

<table>
<thead>
<tr>
<th>Satisfaction Level</th>
<th>2005 Mean</th>
<th>2009 Mean</th>
<th>% Participated</th>
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</thead>
<tbody>
<tr>
<td>Definitely</td>
<td>3.80</td>
<td>4.19</td>
<td>28.6%</td>
</tr>
<tr>
<td>Probably</td>
<td>3.30</td>
<td>3.60</td>
<td>29.3%</td>
</tr>
<tr>
<td>Maybe</td>
<td>2.67</td>
<td>2.30</td>
<td>30.0%</td>
</tr>
<tr>
<td>Probably Not</td>
<td>1.30</td>
<td>1.00</td>
<td>30.6%</td>
</tr>
<tr>
<td>Definitely Not</td>
<td>0.00</td>
<td>0.30</td>
<td>31.2%</td>
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</table>
Graduate Student Satisfaction Measures

Comparative results from the Spring 2005 and Fall 2009 Graduate Student Surveys

Factors that are obstacles to academic progress in unit

KWU Graduate students overall

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<tr>
<th>Obstacles</th>
<th>2005</th>
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<td>Family obligations</td>
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<td>Program structure or requirement</td>
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<td>Course scheduling</td>
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<tr>
<td>Other</td>
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<td></td>
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<tr>
<td>Availability of faculty</td>
<td></td>
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<tr>
<td>Immigration laws or regulations</td>
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<tr>
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<tr>
<td>Other</td>
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</table>
Department of Geography
University of Kansas

Self Study for 2010 Program Review

APPENDIX D

Departmental Bylaws and Faculty Evaluation Plan
I. Decision-making and Voting rights

The decision-making body of the Department of Geography is the tenure-line faculty sitting as a Committee of the Whole. According to the University Senate Code, student representation to the Committee of the Whole shall be no less than 20 percent of the faculty sitting as the Committee of the Whole. For the election of the Departmental Chair, the right to vote is extended to the departmental office manager, the head of Cartographic and GIS Services, and the lead Computer Technician. Students are not permitted to vote on individual personnel decisions.

II. Standing Committees

The Geography Department has six standing committees that serve in an advisory capacity to the Committee of the Whole and to the Departmental Chair. Members of each committee are appointed by the Chair. The six committees are Faculty Affairs, Graduate Affairs, Undergraduate Affairs, Curriculum, Outreach, and Colloquium. To the extent possible, the composition of the Faculty Affairs Committee consists of a representative from each professorial rank and each department subdiscipline. These members serve up to a three-year term. All standing committees include one graduate student representative, except the Graduate Affairs Committee. The following standing committees include two undergraduate representatives (one from geography and one from atmospheric science): Undergraduate Affairs, Curriculum, and Outreach. Faculty members normally serve no more than three years as chair of a committee.

A. Graduate Affairs Committee duties include:

Evaluate applications for graduate work
Evaluate applications for Honors or Self Fellowship
Evaluate new students for GTA positions
Revise materials sent to prospective students
Prepare recruitment strategies
Evaluate in-house students for GTA positions
Evaluate in-house students for dissertation or summer fellowships
Evaluate program sheets of all in-house students
Evaluate graduate students for relevant scholarships
Update graduate booklets
Evaluate all graduate student petitions
Assist with the placement of graduate students
Coordinate graduate assessment
Update graduate catalog copy

The chair of the Graduate Affairs Committee is the Graduate Director, who has the following duties:
Approves MA and PhD examinations
Reviews and approves graduate student petitions
Makes GTA course assignments in consultation with faculty involved

B. Faculty Affairs Committee duties include:

Evaluate and rank faculty proposals for sabbatical leave
Evaluate and rank faculty proposals for General Research Fund grants
(Alternatively, the Chair may form a subcommittee for this purpose)
Evaluate faculty for professional progress and merit salary increases
Evaluate promotion and tenure documents for faculty
Maintain reduced load documentation on faculty
Recommend nominees for awards

C. Undergraduate Affairs Committee duties include:

Evaluate petitions by undergraduate students
Process graduation checks for undergraduate students
Coordinate undergraduate assessment and senior exit survey
Coordinate departmental Honors Program
Coordinate undergraduate advising
Evaluate undergraduate students for relevant scholarships
Update undergraduate booklet
Coordinates internships
(Alternatively, the Chair may assign this task to some faculty member)
Coordinate Study Abroad
Update undergraduate catalog copy

D. Curriculum Committee duties include:

Entertain recommendations for course changes and new courses
Evaluate current degree programs (graduate and undergraduate)
Review forthcoming course schedules
Update undergraduate brochure
Update graduate brochure

E. Outreach Committee duties include:

Coordinate Open House
Coordinate the annual graduation ceremony
Coordinate Geography Awareness Week and GIS Day
Coordinate UCGIS relations
Update hallway displays
Responsible for news items, local and national
Coordinate development and maintenance of the departmental Web page
Provide advice to the Chair regarding the Advisory Board
Prepare nomination files for awards

F. Colloquium Committee duties include:

Schedule talks for the departmental colloquium series (normally held every other week during the fall and spring semesters)
Schedule brown-bag sessions during the lunch hour

III. Chair

Duties of the chair include the following:

Maintaining working relations with other elements of the university
Communicating useful information to faculty, staff, and students
Handling academic misconduct cases
Requesting letters from external referees for promotion and tenure
Evaluate unclassified professional staff
Responsible for assigning merit salary increases for faculty and staff
Responsible for ensuring that faculty are teaching the number of courses specified in their workload agreement
Responsible for assigning faculty and staff to office space

IV. Associate Chair

The Associate Chair serves a three-year term with a review conducted as part of the individual’s annual faculty evaluation. In consultation with the Departmental Chair, the responsibilities of the Associate Chair include but are not be limited to:

1) serves as Chair in the absence of the Chair or as a representative of the Chair when so asked.
2) serves as the scheduling officer and monitors courses for 6/12 compliance.
3) serves in place of the Chair as ex-officio member of all departmental committees; oversees departmental committees to see that they meet and provide timely reports to the Chair and the faculty.

V. Departmental Meetings

Departmental meetings generally are held at least once a month during the academic year and more frequently, if the occasion demands it. The meetings should be announced at least one
week in advance, except in emergency situations. The departmental meeting is a primary means of exchange of information between faculty and the Chair. Additional information is also distributed by the Chair via e-mail. Faculty are required to attend faculty meetings. Faculty who cannot attend a faculty meeting should let the Chair know in advance.

VI. Budgetary Matters

Budgetary matters are primarily the responsibility of the departmental Chair, but the Chair is responsible to the Committee of the Whole.

VII. Hiring

The hiring of unclassified and classified staff is the responsibility of the Chair in consultation with the appropriate search committee.

Faculty hiring follows university and EOO guidelines. When permission to hire a new faculty member is received from the College Office, a search committee is appointed by the Departmental Chair in consultation with the faculty. The search committee normally is composed of at least three faculty members from Geography, one Geography graduate student, and one faculty member from outside Geography. If the hire is a joint one (Geography and another academic department), both departments select members for the search committee. During a departmental meeting, the search committee presents a list of potential candidates to be interviewed; this list must be approved by the faculty before the names are submitted to the Dean and EOO. Only faculty are permitted to vote on a faculty hiring decision.

VIII. Promotion and Tenure

Faculty who wish to be considered for promotion and tenure need to provide the Chair a list of up to six names of potential external evaluators. This is normally done in the late spring of the year in which promotion materials will be submitted for consideration. The faculty member being considered for promotion is responsible for preparing the initial draft of the promotion dossier (i.e., the blue form) that will be submitted to the College. The Faculty Affairs Committee is responsible for assisting the faculty member in checking the accuracy of the dossier. The Faculty Affairs Committee also completes the evaluation of the teaching, research, and service sections of the dossier. Only tenured faculty are eligible to serve on The Faculty Affairs Committee when promotion and tenure cases are being handled, and only tenured faculty are eligible to vote on promotion cases. In general, the Department follows the CLAS Statement on Promotion and Tenure. **Exact procedures are outlined in APPENDIX A**

Each new, tenure-line faculty member is mentored and monitored for progress annually. It is the Department’s practice to identify a mutually agreed upon tenured faculty member to act as mentor to all new and untenured faculty. The mentor monitors progress in teaching and research as well as grantsmanship. A pre-tenure review is conducted after a faculty member has been at KU for three years. When a faculty member is ready to go forward for promotion and tenure,
they put together their materials in conjunction with a senior faculty mentor. A list of suggested referees is provided by the candidate and additional names may be suggested by his/her peers or the Chair. The Faculty Affairs Committee then reviews the materials for accuracy and completeness, prepares an evaluation to present to the full faculty (minus the candidate), and this is then voted upon by all tenured faculty in Geography. The votes are tallied according to guidelines provided by the University and College Committees on Promotion and Tenure and sent forward to the College.

IX. Teaching Load

The standard teaching load for Geography faculty is four courses per year (normally two per semester) unless special arrangements have been made with the Chair and approved by the Dean.

X. Advisor Responsibilities

It is the responsibility of each faculty advisor to be familiar with the academic requirements for majors and graduate students. Copies of the undergraduate requirements (green book) and graduate requirements (red book) are available in the Geography office. It is very important that advisors ensure that their graduate students have program sheets on file. These program sheets should be updated every semester or at a minimum of once a year. In addition, it is important to remember that the Graduate School requires three weeks’ notice for scheduling master’s exams, PhD orals or PhD defenses.

XI. Sabbatical and Unpaid Leaves of Absence

The Faculty Affairs Committee does the initial review of all requests for sabbatical leave. It may also be referred to for unpaid leave when this affects the curriculum. Unpaid leaves of absence are normally negotiated with the Chair and the Dean of the College.

XII. Adjunct/Courtesy Faculty

An adjunct/courtesy professor’s term of appointment will be 3-5 years. An adjunct/courtesy professor has no vote in the department. There will be no more than two or three adjunct/courtesy positions from any one organization. An adjunct/courtesy professor’s appointment requires approval by the faculty.

XIII. Long-Range Plan

The department uses a long-range plan to guide it in hiring priorities. This plan is periodically reviewed and updated and may be reviewed and updated at any time by a consensus of the Committee of the Whole. A copy of the current long-range plan is attached as Appendix A.

XIV. Faculty Evaluation Procedures
All tenure-line faculty and unclassified staff are evaluated once a year. The Faculty Evaluation Procedures are attached as Appendix B.

**XV. Grievance Procedures**

Pursuant to Article XIV of the University Senate Code and Articles V and VI of the University Senate Rules and Regulations of the University of Kansas, the Department has established procedures to deal with grievances arising within the Department. These procedures are attached as Appendix C.

**XVI. New Courses and Curriculum**

Changes in course offerings (new courses, course changes, or requests to delete courses) are brought before the Committee of the Whole for discussion and a vote. These may be initiated by either an individual or a committee (normally Curriculum), but they must be voted upon to become effective.

**XVII. Day-to-Day Operations**

The daily operation and related paperwork of the Department is handled primarily by the departmental office manager and the Chair. Issues that need to be dealt with by various committees or the Committee of the Whole are scheduled as agenda items for regular or special faculty meetings.

Approved in Departmental Meeting 1/29/03
Committee Duties updated 9/10/03
Updated 9/2/04
Updated 11/23/04
Updated 3/28/07
Updated 5/4/07
Updated 4/25/08
APPENDIX A

Promotion and Tenure Procedures for the Department of Geography
Adopted by a Faculty Vote on December 5, 2008

General Provisions

Scope and Purpose. The award of tenure and/or promotion in rank are among the most
important and far-reaching decisions made by the University because an excellent faculty is an
essential component of any outstanding institution of higher learning. Promotion and tenure
decisions also have a profound effect on the lives and careers of faculty. Recommendations
concerning promotion and tenure must be made carefully, based upon a thorough examination of
the candidate’s record and the impartial application of clearly articulated standards pursuant to
prescribed procedures.

It is the purpose of these procedures to promote the rigorous and fair evaluation of faculty
performance during the promotion and tenure process by (a) Establishing university-wide
standards and procedures for the evaluation of teaching (or professional performance),
Scholarship, and service; (b) Creating a mechanism for the approval of written criteria and
procedures by the department; (c) Preserving and enhancing the participatory rights of
candidates, including the basic right to be informed about critical stages of the process and to
have an opportunity to respond to negative evaluations; and, (d) Clarifying the responsibilities,
roles, and relationships of the participants in the promotion and tenure review process so as to
promote more effective interaction among them.

Each level of review, including the initial review, the intermediate review, and the university
level review, conducts an independent evaluation of a candidate’s record of performance and
makes independent recommendations to the Chancellor. Later stages of review neither affirm
nor reverse earlier recommendations, which remain part of the record for consideration by the
Chancellor. It is the responsibility of each person involved in the review process to exercise
his/her own judgment to evaluate a faculty member’s teaching (or professional performance),
Scholarship, and service based upon the entirety of the data and information in the record. No
single source of information, such as peer review letters, shall be considered a conclusive
indicator of quality.

Academic Freedom. All faculty members, regardless of rank, are entitled to academic freedom
in relation to teaching and scholarship, and the right as citizens to speak on matters of public
concern. Likewise, all faculty members, regardless of rank, bear the obligation to exercise their
academic freedom responsibly and in accordance with the accepted standards of their academic
disciplines.

Tenured faculty members may be dismissed only for adequate cause, in cases of program
discontinuance, or under extraordinary circumstances caused by financial exigency.
Confidentiality. Consideration and evaluation of a faculty member’s record is a confidential personnel matter.

No person shall participate in any aspect of the promotion and tenure process concerning a candidate when participation would create a clear conflict of interest or compromise the impartiality of an evaluation or recommendation.

If a candidate believes that there is a conflict of interest, the candidate may petition to have that person recuse him/herself. If a committee member does not recuse him/herself, a decision about whether that person has a conflict of interest shall be made by a majority of the other committee members.

Promotion and Tenure Standards

General Principles. The University strives for a consistent standard of quality against which the performance of all faculty members is measured. Nonetheless, the nature of faculty activities varies across the University and a faculty member’s record must be evaluated in light of his/her particular responsibilities and the expectations of the discipline. Teaching and scholarship should normally be given primary consideration, but the particular weight to be accorded to each component of a faculty member’s activities depends upon the responsibilities of the faculty member. In the case of non-teaching faculty and unclassified academic staff, comparable professional responsibilities, as defined by our department and the standards of our disciplines, may be evaluated instead of teaching. The College has traditionally recognized the 40-40-20 formula for weighting research, teaching, and service. There is some flexibility in this weighted formula to assign a differential allocation of effort to a tenured faculty member, in light of the needs of the tenured faculty member and the departmental needs and aspirations.

Teaching. Teaching is a primary function of the University, which strives to provide an outstanding education for its students. The evaluation of teaching includes consideration of syllabi, course materials, and other information related to a faculty member’s courses; peer and student evaluations; a candidate’s own statement of teaching philosophy and goals; public representations of teaching; and other accepted methods of evaluation, which may include external evaluations.

High quality teaching is serious intellectual work grounded in a deep knowledge and understanding of the field and includes the ability to convey that understanding in clear and engaging ways.

The conduct of classes is the central feature of teaching responsibilities at KU, but teaching also includes supervising student research and clinical activities, mentoring and advising students, and other teaching-related activities outside of the classroom.
For the award of tenure and/or promotion to associate professor, the record must demonstrate effective teaching, as reflected in such factors as command of the subject matter, the ability to communicate effectively in the classroom, a demonstrated commitment to student learning, and involvement in providing advice and support for students outside the classroom.

For promotion to the rank of professor, the record must demonstrate continued effectiveness and growth as a teacher, as reflected in such factors as mastery of the subject matter, strong classroom teaching skills, an ongoing commitment to student learning, and active involvement in providing advice and support for students outside the classroom.

[I have contacted the Provost’s Office and have discovered that we don’t need to complete this section.]

Scholarship. The concept of “scholarship” encompasses not only traditional academic research and publication, but also the creation of artistic works or performances and any other products or activities accepted by the academic discipline as reflecting scholarly effort and achievement for purposes of promotion and tenure. While the nature of scholarship varies among disciplines, the University adheres to a consistently high standard of quality in its scholarly activities to which all faculty members, regardless of discipline, are held. In the Department of Geography, scholarship is defined as investigation or experimentation aimed at the discovery and interpretation of the world’s physical and cultural variety. Such research may include critical evaluations and artistic creations, and is expected to culminate in some combination of books, refereed journal articles and book chapters, conference proceedings papers, maps, grants, and other similar works. On average productivity should be equivalent to one-to-two major publications per year in refereed journals or books. Faculty are expected to exhibit leadership roles in their research programs as demonstrated through primary investigator status on grants and/or single-authored/first-authored publications. (6.2.3.1)

For the award of tenure and/or promotion to the rank of associate professor, the record must demonstrate a successfully developing scholarly career, as reflected in such factors as the quality and quantity of publications or creative activities, external reviews of the candidate’s work by respected scholars or practitioners in the field, the candidate’s regional, national, or international reputation, and other evidence of an active and productive scholarly agenda.

For promotion to the rank of professor, the record must demonstrate an established scholarly career, as reflected in such factors as a substantial and ongoing pattern of publication or creative activity, external reviews of the candidate’s work by eminent scholars or practitioners in the field, the candidate’s national or international reputation, and other evidence of an active and productive scholarly career.

Service. Service is an important responsibility of all faculty members that contributes to the University’s performance of its larger mission. Although the nature of service activities will depend on a candidate’s particular interests and abilities, service contributions are an essential part of being a good citizen of the University. The Department of Geography accepts and values
scholarly service to the discipline or profession, service within the university, and public service at the local, state, national, or international level. (6.2.4.1.)

For the award of tenure and/or promotion to associate professor, the record must demonstrate a pattern of service to the University at one or more levels, to the discipline or profession, and/or to the local, state, national, or international communities.

For promotion to the rank of professor, the record must demonstrate an ongoing pattern of service reflecting substantial contributions to the University at one or more levels, to the discipline or profession, and/or to the local, state, national, or international communities.

**Criteria for Review.** The criteria shall provide for the evaluation of teaching (or professional performance), scholarship, and service as “excellent,” “very good,” “good,” “marginal,” or “poor,” defined as follows:

(a) “Excellent” means that the candidate substantially exceeds disciplinary and department/unit expectations for tenure and/or promotion to this rank.
(b) “Very Good” means the candidate exceeds disciplinary and department/unit expectations for tenure and/or promotion to this rank.
(c) “Good” means the candidate meets disciplinary and department/unit expectations for tenure and/or promotion to this rank.
(d) “Marginal” means the candidate falls below disciplinary and department/unit expectations for tenure and/or promotion to this rank.
(e) “Poor” means the candidate falls significantly below disciplinary and department/unit expectations for tenure and/or promotion to this rank.

Absent exceptional circumstances, successful candidates for promotion and tenure will meet disciplinary expectations in all categories, and strong candidates are likely to exceed normal expectations in one or more categories.

**Procedures for Review.** Responsibility for the initial review lies with the department in which the candidate has his or her principal appointment. The initial review shall be conducted pursuant to section 5 of Article VI of the Faculty Senate Rules and Regulations. The unit review committee (consisting of all faculty holding the appropriate academic rank) shall evaluate the candidate’s research, teaching (or professional performance), and service.

No students or untenured faculty members, except unclassified academic staff with the rank equivalent to or higher than associate professor, shall serve on the department promotion and tenure committee or vote on any recommendation concerning promotion and tenure.

The Provost’s guidelines shall provide for a summary evaluation section to be prepared by the committee at each level and shared with the candidate upon completion of the initial review. The evaluation section shall include: (a) the recommendation of the committee, its rating of the candidate in the areas of teaching (or professional performance), scholarship, and service, and a statement of the reasons for those ratings; (b) if the initial or intermediate procedures provide for
the faculty holding the necessary rank to vote as a committee of the whole, whether the
committee of the whole concurred in the recommendations; and, (c) the concurrence or
nonconcurrence of the department chair, the dean of the school or college, or head of the
administrative unit.

Initiation of Review. Prior to the beginning of the spring semester, the Provost notifies all
faculty whose mandatory review year will be the following academic year, with copies provided
to department chairs. Upon receipt of this notice or if a faculty member requests it prior to the
mandatory review year, the department shall initiate procedures for evaluating the candidate for
the award of tenure.

As part of the annual faculty evaluation process, the department shall consider the qualifications
of all tenured faculty members below the rank of full professor, with a view toward possible
promotion in rank during the following academic year. After considering a faculty member’s
qualifications, if the department determines that those qualifications may warrant promotion in
rank, it shall initiate procedures for reviewing the faculty member for promotion.

It is the responsibility of the candidate to complete the appropriate portions of the form and
provide necessary documents and information in accordance with the Provost’s guidelines, with
assistance from the department conducting the initial review.

The department, as the committee responsible for the initial review, shall receive the form and
accompanying materials from the candidate and finish compiling the record of the candidate’s
teaching, scholarship, and service in accordance with the Provost’s guidelines. The committee
shall follow the approved written procedures for initial review.

The departmental review committee shall provide for the solicitation of outside reviewers to
assist in the evaluation of a faculty member’s scholarship and in accordance with College
procedures. Emphasis shall be placed on selecting reviewers who hold academic rank or a
professional position equal to or greater than the rank for which the candidate is being
considered.

When soliciting external reviews of a candidate’s scholarship, the department committee shall
inform prospective reviewers of the extent to which the candidate will have access to the review.
The College’s confidentiality policy regarding soliciting external reviewers for the promotion
and tenure review process is as follows:

"As a part of the promotion and/or tenure review process, we are soliciting assessments
of Professor _____’s research contributions from academic colleagues and distinguished
professionals. These letters will become part of the candidate's promotion and tenure
dossier and are treated as confidential by the University to the extent we are permitted to
do so by law."

Recommendations. Upon completion of the record, the committee conducting the initial review
shall evaluate the candidate’s record of teaching, scholarship, and service in light of the applicable standards and criteria and make recommendations concerning the award of tenure and/or promotion in rank.

Departmental procedures stipulate that the committee recommendation shall be forwarded for consideration to a committee of the whole consisting of all faculty members holding the appropriate academic rank in the department. The faculty affairs committee will assess all cases for promotion and tenure. The faculty Affairs Committee will be composed as follows:

- At least three people of Associate or Full Professor rank
- At least one assistant professor
- At least one graduate student representative

Assistant professors and graduate students will not take part in creating or evaluating files for promotion at any level. They will, however, participate in other committee activities such as the annual review, where Assistant professors will have voting privileges, but graduate students will not (6.5.4.1)

The department chair shall communicate the recommendations of the initial review to the candidate and provide the candidate with a copy of the corresponding evaluation section of the promotion and tenure form. Negative recommendations shall be communicated in writing and, if the review will not be forwarded automatically, the chair shall inform the candidate that he or she may request that the record be forwarded for further review.

Favorable recommendations, together with the record of the initial review, shall be forwarded to the College Committee on Appointments Promotion, and Tenure conducting the intermediate review. Negative recommendations resulting from an initial review shall go forward for intermediate or UCPT review only if it is the candidate’s mandatory review year or if the candidate requests it.

Intermediate Review.

Record for Review. The candidate may submit a written response to a negative recommendation at the initial departmental review level, or to a final rating of teaching, research, or service below the level of “good” included in the evaluation section of the recommendation. The written response goes forward with the dossier to the next level of review at CCAPT.

Request for Information. A request for information by the intermediate review committee (CCAPT) shall be sent to the department chair who shall immediately provide a copy to the candidate and inform the initial review committee. The chair and/or committee shall prepare the department’s response in accordance with the initial review procedures.

The candidate shall be afforded an opportunity to participate in the preparation of the department’s response and/or to submit his/ her own documentation or comment to the CCAPT.
Introduction

The Department of Geography subscribes to the University of Kansas Faculty Code of Rights, Responsibilities, and Conduct, as adopted by the Faculty Senate in 1971 and subsequently amended. The faculty of the Department of Geography at the University of Kansas is expected to demonstrate commitment to effective teaching, advising, and mentoring both in the classroom and with individual undergraduate and graduate students; to engage in professional research; and to provide service to the Department, College, and University, to local, national, and international communities, and/or to disciplinary and interdisciplinary organizations, and to work in a collegial and professional manner with Department colleagues, staff, and students. Faculty duties are set forth in Article IV Faculty Responsibilities of the Faculty Code, and the Department of Geography expects its faculty to live up to those responsibilities. Within the context of the Faculty Code of Conduct, the duties and expectations of the Department of Geography faculty and the means by which they are evaluated are presented below.

The Geography Department strives to achieve excellence in geographic scholarship, including teaching/advising, research, and service activities that advance the profession. This document, prepared to comply with “General Principles for Developing Faculty Evaluation Plans, University of Kansas, 2008-2009,” sets forth departmental procedures and criteria for evaluation of faculty at all levels.

Statement of Performance Expectations

Unit Expectations: Following the generally accepted standard workload of 40 percent teaching, 40 percent research, and 20 percent service, we view the following as expected levels of performance:

1. Department Expectations

A. Teaching.

Each faculty member is expected to teach four courses (or their equivalent) per year and receive acceptable performance evaluations. Faculty are expected to teach courses in accordance with the needs, requirements, and expectations of the Department. These ideally include a number of introductory, advanced, and specialty courses and seminars in the faculty member's area of specialization. Teaching responsibilities include:

- Responsibly meeting with classes and preparation of course materials
- Keeping abreast of developments related to the individual's specific specialties
• Communicating information and knowledge in the faculty member's specialities to students and professionals in the field.
• Preparing relevant and fair exams.
• Being available and prepared for advising students in curricula, scholarship, professional, and applied interests.
• Being polite, courteous, and respectful towards students and colleagues.

The quality of lectures and in-class performance is evaluated using the University’s “Student Survey of Teaching.” In addition, the quality may be judged by one or more of the following:
• Peer evaluations by faculty (by invitation and consent only).
• Video tapes of lectures.
• Student evaluations (e.g., at midsemester) that complement the “Student Survey of Teaching.
• Assistance and mentoring from the Center for Teaching Excellence.

B. Advising.

Student advising is expected from every faculty member and includes the counseling of undergraduate majors and graduate students. While the Chair of the Undergraduate Studies Committee serves as advising coordinator for our undergraduate majors, individual faculty members carry out career advising for geography majors and other undergraduates. Successful undergraduate advising is judged by the willingness of individuals to be available for advising on an equitable basis. Complaints or problems are noted and addressed on a case-by-case basis.

Graduate students are advised by their thesis and dissertation mentors. Graduate advising also is judged on the basis of willingness to assist students. Naturally, the professional success of graduates is one of the best indicators of the quality of advising and instruction, and so we keep such records and use them as a part of individual faculty evaluations.

C. Scholarly/Creative Activity.

Faculty members are expected to contribute regularly to their area of scholarly/creative activity through publications, presentations, and other forms, as detailed below. The Department encourages investigation or experimentation aimed at the discovery and interpretation of the world’s physical and cultural variety. Such research may include critical evaluations and artistic creations, and is expected to culminate in some combination of books, refereed journal articles and book chapters, conference proceedings papers, maps, grants, and other similar works. On average productivity should be equivalent to one-to-two major publications per year in refereed journals or books. Faculty are expected to exhibit leadership roles in their research programs as demonstrated through primary investigator status on grants and/or single-authored/first-authored publications. To be considered for promotion to Full Professor, a candidate must demonstrate recognition for his/her research at an international level. General guidelines to requirements for promotion to different ranks are provided in Appendix B.

D. Service.

A mix of professional services to the department, university, and profession, as well as to the community, state, and nation are expected from each faculty member through committee work, editorship, consulting, and more, as detailed below.
2. Standards for Acceptable Performance for Tenured Faculty:

It is the intention of the department, collectively, to identify situations and propose solutions to faculty performance problems before the classification of "unsatisfactory performance" would be used. Unsatisfactory performance by a faculty member occurs when he/she, given ordinary circumstances, fails over a sustained period of typically three years to: (1) meet teaching expectations (typically four courses per year) with acceptable performance evaluations, (2) to meet expected advising responsibilities, (3) contribute to scholarly/creative activity, or (4) contribute to professional service. Specifically, the trigger for unsatisfactory performance would be a score of less than 60% in teaching/advising, research, or service; for example assuming a 40 percent teaching/advising, 40 percent research, and 20 percent service load, scores below 24 (out of 40), 24 (out of 40), or 12 (out of 20) would constitute unsatisfactory performance. A designation of "unsatisfactory performance" would be given to a faculty member only after a recommendation based on the consultation of the Department Chair and the Geography Faculty Affairs Committee. This designation would be considered only after the individual had been notified (in person and in writing) and offered remedial support, but had failed to respond or improve his/her performance over a sustained period of time, typically three years. This and other levels for performance apply to both tenured and untenured faculty.

Evidence of unsatisfactory performance will result in initiation of a recommendation for dismissal by the Chair and the Committee following consultation with the department faculty.

3. Differential Allocation of Effort:

The Department of Geography expects faculty to devote equal attention to teaching and research. The Geography Department also encourages creative combinations of individualized teaching, research, and service. When evaluating faculty performance, the department applies the weights of 40 percent for teaching, 40 percent for research, and 20 percent for service to the university, community, and profession. These weights are the same for tenured and non-tenured faculty, although the department recognizes that the specific contributions of faculty members to the department’s mission will differ depending on career stage.

Changes in the standards 40/40/20 allocation of effort for a set period of time can be initiated by the tenured faculty member or department chair. These changes can be short- or long-term and must correspond to changes in work-load not just evaluation criteria. Reasons for alterations can include short-term items such as funded research or longer term career-stage issues. Faculty members are not allowed to reduce their teaching or research to less than 10 percent on permanent DAE agreements. Departmental needs take precedence over individual needs when making decisions to alter a faculty member’s allocation of effort; such redistribution must be consistent with the best interests of the unit. The most likely occasion for consideration of such changes is in discussion between the chair and the individual faculty member following annual performance evaluations, or sooner so that appropriate arrangements may be made at the unit level for the coverage of course offerings.
individualized changes in faculty allocation of effort will be negotiated with the Chair and documented in the faculty member's personnel file.

For temporary DAE agreements (one academic year or less), the DAE is ultimately approved by the chair of the unit. For permanent DAE agreements (lasting one year or beyond), approval must also be sought from the appropriate contact dean in the College. All Differential Allocation of Efforts are reported annually to the College Dean's Office. For permanent DAEs, the supporting documentation is also provided to the College and the Provost's Offices.

We believe that this flexibility enhances the differential efforts and abilities of individuals and contributes to the betterment of both the program and the University. Upon acceptance, the individualized format will be used to judge the faculty member's performance on an annual basis until it is changed by mutual consent; each individualized performance package will be reviewed yearly, at the time of the annual faculty evaluation, as described below.

Annual Evaluation System

1. Overview - Description of Structure/Timeliness for Annual Evaluations:

Each faculty member's performance will be evaluated annually by the Faculty Affairs Committee. The annual evaluation timeline is as follows:

January 30 (Deadline)
Annual reports for all faculty and other unclassified professional staff must be submitted.

February
Faculty Affairs Committee evaluates the annual reports.

March 1
Individual evaluations are submitted to the Chair of the Department by the Faculty Affairs Committee.

Second week of March
Associate Chair sends evaluation letters to individuals.

Third and Fourth weeks of March
The Associate Chair and Departmental Chair meet with individual staff members to discuss his or her evaluation. Individuals then have ten days to appeal results of the evaluation to the Chair of the Department.

April 1-15
The Faculty Affairs Committee and the Departmental Chair consider and respond to all appeals.
Specifically, in December, the Committee shall call for each faculty member’s annual report, which will use the Geography Department's "Standard Faculty Evaluation Form" (see Appendix C), and cover the last three calendar years. The report shall be received by January 30, and a written review prepared by the Faculty Affairs Committee will be submitted to each faculty member and the Chair in March. Faculty are provided the opportunity to discuss their evaluation with the Committee and the Chair. The final report of the Committee will be completed in April and this report is filed in the faculty member’s personnel file.

Subsequent discussions will address not only individual concerns but also the departmental perspective of the evaluations, including individual and departmental expectations and plans for the future and merit salary awards. The Committee will forward recommendations to the Chair concerning both the performance of each faculty member and merit salary recommendations. This secondary review is conducted after all performance evaluation plans are conducted.

The evaluation of each faculty member’s performance will be carried out by the Faculty Affairs Committee, following the guidelines included in this document and the documentation submitted. The Faculty Affairs Committee is the Department body assigned the task of evaluating the overall performance of each faculty member. These evaluations follow the above guidelines and are also reviewed separately by the Chair. The Committee is appointed by the faculty as a whole and, ideally, consists of one member from each of the three professorial ranks. Members serve for up to three years.

2. **Portfolio or Annual Report Preparation:**

   Each faculty member will prepare and maintain a portfolio of his or her work, including data concerning teaching, research, and service. This is the responsibility of the individual faculty member and not that of the department, the Faculty Affairs Committee, or the Chair. The required categories and multiple sources of data provided to document teaching, research, and service can be found in Appendix C. Individual portfolios must include the following:
   - A current vita
   - Report of professional activities using the Department of Geography Faculty Evaluation Form (Appendix C), covering the past three calendar years. This document will include:
     - Student teaching evaluation summaries for all classes taught over the three year period
     - Copies of peer teaching evaluations
     - Copies of publications from the three-year time period
     - Additional supporting materials may be requested by the committee, if necessary

   The portfolio will be on file in the Department Office.
3. **Portfolio or Annual Report Review and Evaluation:**

The procedures for annual review of faculty performance have been described above (Section 2). The Department's standard Faculty Evaluation Form (Appendix C) is used to assess the quality, quantity, significance, and impact of a faculty member's performance. Given the professional diversity of faculty contributions in the eclectic discipline of geography, it is difficult to assign any one set of numerical values or a standard point system for each type of teaching, research, and service activity. The Faculty Affairs Committee consciously considers this diversity as it reviews an individual’s materials for completeness and develops internal procedures for undertaking the evaluation of the quality, quantity, significance, and impact of each faculty member's work. This analysis is based on a blending of objective and subjective evaluation by the Committee. Ultimately, however, each committee member and the department Chair evaluates the performance of other faculty members using the criteria in the three categories (teaching, research, service), and assigns a numerical score to each category (for example, using maximum values of 40 points for research, 40 points for teaching, and 20 points for service). A summary score for each faculty member is then based on the median score in each category. For instance, a faculty member receiving scores of 15, 17, 18, and 19 for service would receive the median score of 17.5 for service.

The Faculty Affairs Committee, with participation and input from the Chair, does the final evaluation of progress towards tenure review and the promotion and/or tenure processes, of meeting expected and defined Department and individualized goals, as well as for merit salary rewards. Assistant Professors who are members of the Faculty Affairs Committee may not participate in any promotion and/or tenure decisions regarding another faculty member.

4. **Annual Evaluation Feedback Process:**

Faculty members are required to submit a Report of Professional Activities using the standard Faculty Evaluation Form provided by the Department. The items contained in the report, covering the three categories of teaching, research, and service, are evaluated by the Faculty Affairs Committee as outlined above. These evaluations are forwarded to the Chair who is required to use them for annual performance evaluations and later in the awarding of merit salary increases. Each faculty member is given the written assessment of his/her performance by the Faculty Affairs Committee. The written summary of evaluation provided to the faculty member will include a description of the performance of the faculty member in each area of teaching, research, and service. Additionally, any information on the progress toward tenure and promotion and/or tenure reviews, as well as suggested strategies for improvement, renewal, etc., would also be communicated in writing. This letter also informs the faculty member of the opportunity to discuss the evaluation with the Chair and Associate Chair. A copy of this evaluation summary is retained in the faculty member’s personnel file.
5. Conflict Resolution/Review Process:

In the second week of March the Associate Chair sends evaluation letters to individuals. During the third and fourth weeks of March, the Associate Chair and Departmental Chair will be available to meet with individual staff members to discuss his or her evaluation. Individuals then have ten days to appeal results of the evaluation to the Chair of the Department in a written statement; the faculty member may also provide additional information, as appropriate. No response in this time will be considered acceptance of the evaluation.

If the faculty member and the Committee cannot reach agreement on an assessment of the individual's performance, the Committee's report and the faculty member's rebuttal(s) are forwarded to the Chair. The Chair will then work with the individual and the Committee to agree on the statement of assessment of the individual’s performance. Should the faculty member continue to object and this effort does not resolve the difference, the faculty member has the right to appeal the evaluation through appropriate administrative channels in the event disagreement should arise in the course of the evaluation. The faculty member may request a review by a faculty committee designated to hear such matters in the College. The review committee will issue a non-binding recommendation on the appropriateness of this conclusion to the chairperson. The chairperson may change the evaluation after receiving the committee's decision, or may choose not to do so. In any event, the report of the committee will become a permanent part of the faculty member's personnel file within the department and shall be available to the faculty member.

6. Outcomes of the Annual Performance Evaluation:

A. Description of integration of annual evaluation process.

The annual performance review results in multiple outcomes: to identify problems with both individual faculty members, as well as issues and/or problems with the Geography curriculum and program in general; achievement of department and individual professional goals; differential allocation of effort; personnel decisions (including promotion and tenure, non-reappointment, etc.); and merit salary decisions.

B. Department Strategies to Link Outcomes to Individual/Departmental Goals and Ambitions.

i. Department and individual professional goals.

Using the goals for the geography department defined by the faculty as a whole and the individual statements of goals (as described in sections 1A-D, unless modified as described in section 2F), the department will be able to evaluate whether individual and departmental goals are compatible. Departmental goals are outlined by the long-range plan that is periodically updated by faculty consensus to reflect the changing directions of the faculty. Individual goals are identified and evaluated annually with the yearly Annual Faculty Evaluation Form (see Appendix C). As the program changes to meet the demands of the profession, both the faculty and departmental goals should be re-evaluated and re-focused.
ii. **Differential allocation of effort.**
Reallocation of effort has operated de facto within the department for several years; note the formal process for dealing with this in Section 3 above. In a discipline like geography, with extensive possibilities for both pure research and wide-ranging applications of analytical procedures and conceptual frameworks, such flexibility is critical if we are to take advantage of our professional potential.

iii. **Personnel decisions remain the final responsibility of the Chair.**
The Chair, in careful consultation with the Faculty Affairs Committee and each individual faculty member, seeks to provide an appropriate balance between the needs and objectives of the Department and those of the individual. For example, new faculty should be given opportunities and encouragement to meet the requirements for promotion and tenure. Full Professors are encouraged to provide the crucial teaching and mentoring needed to enhance the Department on a national and international level, as well as support younger faculty in their professional growth.

iv. **Merit salary.**
Merit salary decisions and unclassified employee evaluations ultimately are the responsibility of the Chair. However, to avoid any undue bias, the Department of Geography requires that the Chair participate in all evaluations and then follow the Faculty Affairs Committee's recommendations. Individual faculty member disagreements with the outcome of the evaluation process are referred back to this Committee for re-evaluation.

C. **Description of outcomes for failing to meet performance expectations:**

The Department's objective is not merely to maintain an acceptable level of performance by a faculty member, but to encourage and reward his or her efforts at creating excellence. Faculty members who are evaluated as below desirable performance levels are encouraged to improve their performance in targeted area(s). Those faculty members identified as having sustained problems over a three-year period will be encouraged and sometimes required to select and work with a mentor in order to make use of departmental, College, and University support for remediation.

Under the University's post-tenure review policy, if the chair ascertains that a faculty member's performance seems to be failing to meet academic responsibilities, the administrator and the faculty member shall develop a written plan of methods to improve the faculty member's performance. The plan may include appropriate provisions for faculty development, such as campus opportunities for faculty continued renewal and development, or for other appropriate interventions, such as counseling, medical leave, or a change in teaching assignments. The chairperson may call upon the University administration for assistance in constructing such a plan, including provision for additional resources, where needed. A faculty member may reject any plan recommended to aid performance levels, but the faculty member must understand that a sustained overall failure to meet academic responsibilities is a basis for dismissal.
The Department chair shall consult annually with the dean, and the dean shall consult annually with the Provost, on the progress of any faculty member who falls within the category of overall failure to meet minimum academic responsibilities.

Based upon the judgment that there has been a sustained failure to meet academic responsibilities, a dean may recommend to the Provost that a tenured faculty member be dismissed. In making this determination, the dean shall consider the nature of the failure to meet academic responsibilities, the reason or reasons for this failure, the number of years that the faculty member has failed to meet academic responsibilities, the level of discernible improvement in the faculty member's performance after being notified of any failure in performance, and the extent to which the faculty member has complied with the terms of any plan developed to improve the faculty member's performance. The Provost will review the case and, if the Provost agrees with the Dean's recommendation, the Provost will recommend to the Chancellor that the faculty member be dismissed. If the Chancellor agrees and recommends dismissal, this recommendation will go to the Faculty Rights Board.

Should any recommendation to dismiss be brought against a tenured faculty member based exclusively or in part on grounds of sustained failure to meet academic responsibilities, both the report(s) of the review committee(s), the annual written evaluation(s) of the unit administrator concerning the faculty member, any outside evaluations, and any germane written response by the faculty member to the charges shall be made available to the Faculty Rights Board.

**Faculty Development Initiatives**

1. The following faculty development opportunities are promoted by the Department and University:

<table>
<thead>
<tr>
<th>Stage</th>
<th>Opportunities</th>
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<tbody>
<tr>
<td>Early Career</td>
<td>New Faculty Mentoring Programs</td>
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<td></td>
<td>New Faculty Seminar Series</td>
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<td></td>
<td>New Faculty General Research Fund Awards</td>
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<td></td>
<td>Progress Toward Tenure Review</td>
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<td>Research Intensive Semester</td>
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<td>Teaching Support through the Center for Teaching Excellence</td>
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<td>Post Tenure (pre-promotion)</td>
<td>General Research Fund</td>
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<td>Research Development Fund</td>
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<td></td>
<td>Faculty Travel and International Travel Funds</td>
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<td>Sabbatical Leave</td>
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<td>National Fulbright Scholar Program</td>
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<td></td>
<td>Hall Center for Humanities</td>
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<td></td>
<td>Humanities Research and Creative Work Fellowships</td>
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<tr>
<td></td>
<td>Faculty Development Fund</td>
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</tbody>
</table>
**Mid Career**

(Post Tenure, Redirection)

Differential Allocation of Effort, reduced appointments, etc.
Faculty Travel and International Travel Funds
Sabbatical Leave
Leave without Pay
Consulting
Research Development Fund
Intra-University Professorships
General Research Fund
International Faculty Exchanges (IREX)
Hall Center for the Humanities
Faculty Development Fund

2. **New Faculty Mentoring Program**

All new faculty initially are mentored by the Chair. This includes an introduction to the expectations of the Department, College and University in the categories of teaching, research and service. These guidelines are focused on what it takes for successful promotion and tenure. Depending upon the new faculty member’s areas of expertise, they are urged to choose alternate or additional mentors from their related fields and emphases. For example, if they have a geographic regional specialty such as Africa, Asia, Eastern Europe, they are referred to individuals in the area programs for additional guidance and mentoring. If they have specialties in physical or human geography they are likewise encouraged to find an individual in those areas who can guide them in the professional development and achieving academic prominence.

Typically at the end of their third year, new faculty are reviewed in a Progress Toward Tenure Review to measure their progress towards formal review for promotion and/or tenure. This review will take place at the Department and College levels. The results of this review are discussed with the individual, any weaknesses are considered, and suggestions are made for improvement, in accordance with College and University procedures.

**Appendices:**

Appendix A: Instrument(s) used for the student evaluation of teaching; The Department of Geography utilizes the University’s “Student Survey of Teaching” as this instrument.

Appendix B: Promotion and Tenure Procedures for the Department of Geography.

Appendix C: Annual Faculty Evaluation Form.
Appendix B

Promotion and Tenure Procedures for the Department of Geography
Adopted by a Faculty Vote on September 18, 2009.

General Provisions

Scope and Purpose. The award of tenure and/or promotion in rank are among the most important and far-reaching decisions made by the University because an excellent faculty is an essential component of any outstanding institution of higher learning. Promotion and tenure decisions also have a profound effect on the lives and careers of faculty. Recommendations concerning promotion and tenure must be made carefully, based upon a thorough examination of the candidate’s record and the impartial application of clearly articulated standards pursuant to prescribed procedures.

It is the purpose of these procedures to promote the rigorous and fair evaluation of faculty performance during the promotion and tenure process by (a) Establishing university-wide standards and procedures for the evaluation of teaching (or professional performance), scholarship, and service; (b) Creating a mechanism for the approval of written criteria and procedures by the department; (c) Preserving and enhancing the participatory rights of candidates, including the basic right to be informed about critical stages of the process and to have an opportunity to respond to negative evaluations; and, (d) Clarifying the responsibilities, roles, and relationships of the participants in the promotion and tenure review process so as to promote more effective interaction among them.

Each level of review, including the initial review, the intermediate review, and the university level review, conducts an independent evaluation of a candidate’s record of performance and makes independent recommendations to the Chancellor. Later stages of review neither affirm nor reverse earlier recommendations, which remain part of the record for consideration by the Chancellor. It is the responsibility of each person involved in the review process to exercise his/her own judgment to evaluate a faculty member’s teaching (or professional performance), scholarship, and service based upon the entirety of the data and information in the record. No single source of information, such as peer review letters, shall be considered a conclusive indicator of quality.

Academic Freedom. All faculty members, regardless of rank, are entitled to academic freedom in relation to teaching and scholarship, and the right as citizens to speak on matters of public concern. Likewise, all faculty members, regardless of rank, bear the obligation to exercise their academic freedom responsibly and in accordance with the accepted standards of their academic disciplines.

Tenured faculty members may be dismissed only for adequate cause, in cases of program discontinuance, or under extraordinary circumstances caused by financial exigency.

Confidentiality. Consideration and evaluation of a faculty member’s record is a confidential personnel matter.

No person shall participate in any aspect of the promotion and tenure process concerning a candidate when participation would create a clear conflict of interest or compromise the impartiality of an evaluation or recommendation.

If a candidate believes that there is a conflict of interest, the candidate may petition to have that person recuse him/herself. If a committee member does not recuse him/herself, a decision about whether that person has a conflict of interest shall be made by a majority of the other committee members.
Promotion and Tenure Standards

**General Principles.** The University strives for a consistent standard of quality against which the performance of all faculty members is measured. Nonetheless, the nature of faculty activities varies across the University and a faculty member's record must be evaluated in light of his/her particular responsibilities and the expectations of the discipline. Teaching and scholarship should normally be given primary consideration, but the particular weight to be accorded to each component of a faculty member's activities depends upon the responsibilities of the faculty member. In the case of non-teaching faculty and unclassified academic staff, comparable professional responsibilities, as defined by our department and the standards of our disciplines, may be evaluated instead of teaching. The College has traditionally recognized the 40-40-20 formula for weighting research, teaching, and service. There is some flexibility in this weighted formula to assign a differential allocation of effort to a tenured faculty member, in light of the needs of the tenured faculty member and the departmental needs and aspirations.

**Teaching.** Teaching is a primary function of the University, which strives to provide an outstanding education for its students. The evaluation of teaching includes consideration of syllabi, course materials, and other information related to a faculty member's courses; peer and student evaluations; a candidate's own statement of teaching philosophy and goals; public representations of teaching; and other accepted methods of evaluation, which may include external evaluations.

High quality teaching is serious intellectual work grounded in a deep knowledge and understanding of the field and includes the ability to convey that understanding in clear and engaging ways.

The conduct of classes is the central feature of teaching responsibilities at KU, but teaching also includes supervising student research and clinical activities, mentoring and advising students, and other teaching-related activities outside of the classroom.

For the award of tenure and/or promotion to associate professor, the record must demonstrate effective teaching, as reflected in such factors as command of the subject matter, the ability to communicate effectively in the classroom, a demonstrated commitment to student learning, and involvement in providing advice and support for students outside the classroom.

For promotion to the rank of professor, the record must demonstrate continued effectiveness and growth as a teacher, as reflected in such factors as mastery of the subject matter, strong classroom teaching skills, an ongoing commitment to student learning, and active involvement in providing advice and support for students outside the classroom.

**Scholarship.** The concept of “scholarship” encompasses not only traditional academic research and publication, but also the creation of artistic works or performances and any other products or activities accepted by the academic discipline as reflecting scholarly effort and achievement for purposes of promotion and tenure. While the nature of scholarship varies among disciplines, the University adheres to a consistently high standard of quality in its scholarly activities to which all faculty members, regardless of discipline, are held. In the Department of Geography, scholarship is defined as investigation or experimentation aimed at the discovery and interpretation of the world's physical and cultural variety. Such research may include critical evaluations and artistic creations, and is expected to culminate in some combination of books, refereed journal articles and book chapters, conference proceedings papers, maps, grants, and other similar works. On average productivity should be equivalent to one-to-two major publications per year in refereed journals or books. Faculty are expected to exhibit leadership roles in their research programs as demonstrated through primary investigator status on grants and/or single-authored/first-authored publications.
For the award of tenure and/or promotion to the rank of associate professor, the record must demonstrate a successfully developing scholarly career, as reflected in such factors as the quality and quantity of publications or creative activities, external reviews of the candidate’s work by respected scholars or practitioners in the field, the candidate’s regional, national, or international reputation, and other evidence of an active and productive scholarly agenda.

For promotion to the rank of professor, the record must demonstrate an established scholarly career, as reflected in such factors as a substantial and ongoing pattern of publication or creative activity, external reviews of the candidate’s work by eminent scholars or practitioners in the field, the candidate’s national or international reputation, and other evidence of an active and productive scholarly career.

Service. Service is an important responsibility of all faculty members that contributes to the University’s performance of its larger mission. Although the nature of service activities will depend on a candidate’s particular interests and abilities, service contributions are an essential part of being a good citizen of the University. The Department of Geography accepts and values scholarly service to the discipline or profession, service within the university, and public service at the local, state, national, or international level.

For the award of tenure and/or promotion to associate professor, the record must demonstrate a pattern of service to the University at one or more levels, to the discipline or profession, and/or to the local, state, national, or international communities.

For promotion to the rank of professor, the record must demonstrate an ongoing pattern of service reflecting substantial contributions to the University at one or more levels, to the discipline or profession, and/or to the local, state, national, or international communities.

Criteria for Review. The criteria shall provide for the evaluation of teaching (or professional performance), scholarship, and service as “excellent,” “very good,” “good,” “marginal,” or “poor,” defined as follows:

(a) “Excellent” means that the candidate substantially exceeds disciplinary and department/unit expectations for tenure and/or promotion to this rank.

(b) “Very Good” means the candidate exceeds disciplinary and department/unit expectations for tenure and/or promotion to this rank.

(c) “Good” means the candidate meets disciplinary and department/unit expectations for tenure and/or promotion to this rank.

(d) “Marginal” means the candidate falls below disciplinary and department/unit expectations for tenure and/or promotion to this rank.

(e) “Poor” means the candidate falls significantly below disciplinary and department/unit expectations for tenure and/or promotion to this rank.

Absent exceptional circumstances, successful candidates for promotion and tenure will meet disciplinary expectations in all categories, and strong candidates are likely to exceed normal expectations in one or more categories.

Procedures for Review. Responsibility for the initial review lies with the department in which the candidate has his or her principal appointment. The initial review shall be conducted pursuant to section 5 of Article VI of the Faculty Senate Rules and Regulations. The unit review committee (consisting of all faculty holding the appropriate academic rank) shall evaluate the candidate’s research, teaching (or professional performance), and service.

No students or untenured faculty members, except unclassified academic staff with the rank equivalent to or higher than associate professor, shall serve on the department promotion and tenure committee or vote on any recommendation concerning promotion and tenure.
The Provost’s guidelines shall provide for a summary evaluation section to be prepared by the committee at each level and shared with the candidate upon completion of the initial review. The evaluation section shall include: (a) the recommendation of the committee, its rating of the candidate in the areas of teaching (or professional performance), scholarship, and service, and a statement of the reasons for those ratings; (b) if the initial or intermediate procedures provide for the faculty holding the necessary rank to vote as a committee of the whole, whether the committee of the whole concurred in the recommendations; and, (c) the concurrence or nonconcurrence of the department chair, or the Dean of the College.

Initiation of Review. Prior to the beginning of the spring semester, the Provost notifies all faculty whose mandatory review year will be the following academic year, with copies provided to department chairs. Upon receipt of this notice or if a faculty member requests it prior to the mandatory review year, the department shall initiate procedures for evaluating the candidate for the award of tenure.

As part of the annual faculty evaluation process, the department shall consider the qualifications of all tenured faculty members below the rank of full professor, with a view toward possible promotion in rank during the following academic year. After considering a faculty member’s qualifications, if the department determines that those qualifications may warrant promotion in rank, it shall initiate procedures for reviewing the faculty member for promotion.

It is the responsibility of the candidate to complete the appropriate portions of the form and provide necessary documents and information in accordance with the Provost’s guidelines, with assistance from the department conducting the initial review.

The department, as the committee responsible for the initial review, shall receive the form and accompanying materials from the candidate and finish compiling the record of the candidate’s teaching, scholarship, and service in accordance with the Provost’s guidelines. The committee shall follow the approved written procedures for initial review.

The departmental review committee shall provide for the solicitation of outside reviewers to assist in the evaluation of a faculty member’s scholarship and in accordance with College procedures. Emphasis shall be placed on selecting reviewers who hold academic rank or a professional position equal to or greater than the rank for which the candidate is being considered.

When soliciting external reviews of a candidate’s scholarship, the department committee shall inform prospective reviewers of the extent to which the candidate will have access to the review. The College’s confidentiality policy regarding soliciting external reviewers for the promotion and tenure review process is as follows:

“As a part of the promotion and/or tenure review process, we are soliciting assessments of Professor ____’s research contributions from academic colleagues and distinguished professionals. These letters will become part of the candidate’s promotion and tenure dossier and are treated as confidential by the University to the extent we are permitted to do so by law.”

Recommendations. Upon completion of the record, the committee conducting the initial review shall evaluate the candidate’s record of teaching, scholarship, and service in light of the applicable standards and criteria and make recommendations concerning the award of tenure and/or promotion in rank.

Departmental procedures stipulate that the committee recommendation shall be forwarded for consideration to a committee of the whole consisting of all faculty members holding the
appropriate academic rank in the department. The Faculty Affairs Committee will assess all cases for promotion and tenure. The Faculty Affairs Committee will be composed as follows:

- At least three people of Associate or Full Professor rank
- At least one assistant professor

Assistant professors will not be on this committee or take part in creating or evaluating files for promotion at any level. They will, however, participate in other responsibilities of the committee such as the annual evaluation review, where Assistant professors will have voting privileges. Associate professors and the Full professors can vote for the candidates at the Associate professor level and at the Full professor level.

The department chair shall communicate the recommendations of the initial review to the candidate and provide the candidate with a copy of the corresponding evaluation section of the promotion and tenure form. Negative recommendations shall be communicated in writing and, if the review will not be forwarded automatically, the chair shall inform the candidate that he or she may request that the record be forwarded for further review.

Favorable recommendations, together with the record of the initial review, shall be forwarded to the College Committee on Appointments Promotion, and Tenure conducting the intermediate review. Negative recommendations resulting from an initial review shall go forward for intermediate or UCPT review only if it is the candidate’s mandatory review year or if the candidate requests it.

Intermediate Review.

Record for Review. The candidate may submit a written response to a negative recommendation at the initial departmental review level, or to a final rating of teaching, research, or service below the level of “good” included in the evaluation section of the recommendation. The written response goes forward with the dossier to the next level of review at CCAPT.

Request for Information. A request for information by the intermediate review committee (CCAPT) shall be sent to the department chair who shall immediately provide a copy to the candidate and inform the initial review committee. The chair and/or committee shall prepare the department’s response in accordance with the initial review procedures.

The candidate shall be afforded an opportunity to participate in the preparation of the department’s response and/or to submit his/her own documentation or comment to the CCAPT.
Appendix C

Annual Faculty Evaluation Form
Department of Geography
Year of evaluation: xxxx

Name: ___________________________________

Percent appointment in Geography ________%

Other Unit(s) with appointments ______________   ______________

Approved Differential Allocation of Effort or Workload distribution:

_____% Teaching      _____% Research      _____% Service

Criteria for assessment based on the information provided in this form, is given in the Department of Geography Faculty Evaluation Plan.

Section I  Record of Teaching

A. Statement about your teaching record
Provide, a summary statement to assist the committee in its evaluation of your teaching record as evident from your student and peer evaluations (i.e. list any issues, explanations or unusual circumstances associated with the record)

B. Summary of Courses Taught and Student Evaluations
In chronological order, the Course Number & Title, the Semester/Year taught (e.g., Fall __), and the number of students enrolled. For courses that enrolled 5 or more students, also include the Overall Course Mean and Overall Instructor Mean from student evaluations for evaluations prior to Fall ____. From Fall ____ on please provide the new evaluation form for each class. Explanations for missing course evaluation data should be provided in your statement.

<table>
<thead>
<tr>
<th>Course Number &amp; Title</th>
<th>Sem/Year</th>
<th># Enrolled</th>
<th>Course Mean (Q. 10)</th>
<th>Instructor Mean (Q 8)</th>
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<tbody>
<tr>
<td>Dept Mean</td>
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<td>Course A</td>
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<td>Course B</td>
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POST Fall ____

Please provide your mean scores for Criteria 1 through 9 on the student evaluation forms. Also include copies of all the evaluation forms and any peer teaching evaluations.

<table>
<thead>
<tr>
<th>Course #</th>
<th>Semester</th>
<th>Enrolled</th>
<th>Responses</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
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Explanation for Missing Course Evaluation Data:

Insert the reason for any missing course evaluation means for courses of 5 or more students.

C. Undergraduate Advising Record

1. Undergraduate Advisees: List the undergraduate students for whom you served as the primary advisor or mentor.

Insert names of Undergraduate Advisees here (Text may continue onto the next page as necessary).

2. Committee Chair: Undergraduate Honors Thesis: List the undergraduate honors students whose committee you have chaired (give date of degree completion) or are currently chairing.

Insert names of Honors Thesis Advisees here (Text may continue onto the next page as necessary).

3. Other undergraduate committee service: List the names of other undergraduate honors students on whose committees you have served (give date of degree completion) or are currently serving.

Insert names of other Undergraduate Honors Students here (Text may continue onto the next page as necessary).

D. Graduate and Postgraduate Advising Record

1. Committee Chair: Doctoral. List the doctoral students whose committee you have chaired (give date of degree completion) or are currently chairing. List names of co-chairs if applicable.

Insert names of Doctoral Advisees here (Text may continue onto the next page as necessary).

2. Committee Chair: Masters. List the masters students whose committee you have chaired (give date of degree completion) or are currently chairing. List names of co-chairs if applicable.
Insert names of Masters Advisees here (Text may continue onto the next page as necessary).

3. **Other graduate committee service: Doctoral.** List the names of other doctoral students on whose committees you have served (give date of degree completion) or are currently serving.

Insert names of other doctoral students here (Text may continue onto the next page as necessary).

4. **Other graduate committee service: Masters.** List the names of other masters students on whose committees you have served (give date of degree completion) or are currently serving.

Insert names of other masters students here (Text may continue onto the next page as necessary).

5. **Postdoctoral Fellows:** List the names and graduate institutions of postdoctoral fellows and visiting scholars whom you have mentored (give dates) or are currently mentoring.

Insert names of postdoctoral fellows/visiting scholars here (Text may continue onto the next page as necessary).

E. **Honors and Awards for Teaching.**
Provide a chronological list below of honors, prizes, awards, etc., received for teaching and advising (candidates for promotion to full professor should list only those received since promotion to associate professor). Examples include the Kemper Fellowship for Teaching Excellence, Hope Award, Center for Teaching Excellence Teacher Appreciation Recognition, Graduate Mentor Awards, departmental teaching awards, etc., internal grants (e.g., from the Center for Teaching Excellence, the Hall Center, etc.) supporting training or teaching effectiveness/innovation would be included in this section.

Insert list of teaching honors and awards here (Text may continue onto the next page as necessary).
Section II  Record of Research/Scholarship/Creative or Artistic Work

A. Statement of explanation and any unusual circumstances associated with your record of scholarship.

Insert Statement here

B. Research Publications and/or Creative Works.

1. Major Publications or Creative Works.
   - List in chronological order your major (according to department/unit/school criteria) published and “in press” work or comparable creative work in artistic fields. “In press” refers to work that is completed and accepted for publication with no substantial revisions pending.
   - Give complete citations for all publications, including all authors/editors in the order in which they were listed, titles, year of publication, journal names and volume, page numbers for articles and book chapters, publishers for books and monographs, etc. Provide comparable information for creative performances and exhibits (e.g., title of the performance, single or group performance or exhibit, sponsoring agency, location, dates, etc.).
   - Number the entries on the list.
   - Identify which works were peer-reviewed or juried and which were invited.
   - For each multiple-authored work, indicate the principal author and the nature of your contributions to the work.
   - Only provide works published in the last three years (i.e. ____-____ for your ____ evaluation).

Insert Chronological List of Major Research/Scholarship/Creative Works here (Text may continue onto the next page as necessary).

2. Minor Publications or Creative Works.
   - List in chronological order your minor (according to department/unit/school criteria) published and “in press” work or comparable creative work in artistic fields.
   - Follow the guidelines above on citations, numbering, multiple-authored work, review process, and identification of work relevant to this promotion.

Insert Chronological List of Minor Research/Scholarship/Creative Works here (Text may continue onto the next page as necessary).

3. Works Submitted or Ready for Submission.
   - List work that has either been submitted for publication or has been completed and is ready for submission or comparable creative work in artistic fields.
   - Follow the guidelines above on citations, numbering, and multiple-authored work. Specify the status of the work (i.e., under review, ready for submission, accepted pending major revisions, book contract prospectus accepted, etc.).

Insert List of Works Submitted or Ready for Submission here (Text may continue onto the next page as necessary).

C. Scholarly Presentations
1. **Major Presentations**
   - List in chronological order your major (according to department/unit/school criteria) scholarly presentations or comparable creative work in artistic fields.
   - Give complete citations for all presentations, including all authors in the order in which they were listed; the date and location of the presentation, the sponsoring organization (e.g., name of the professional organization or university), and venue (e.g., annual conference, visiting scholar seminar). Provide comparable information for creative presentations.
   - Number all entries.
   - For each multiple-authored presentation, indicate the principal author and the nature of your participation in the writing/research/presentation.
   - List only those major presentations completed in the last 3 years

*Insert Chronological List of Major Scholarly Presentations here* (Text may continue onto the next page as necessary).

2. **Minor Presentations**
   - List in chronological order your minor (according to department/unit/school criteria) scholarly presentations or comparable creative work in artistic fields following the directions for major presentations above.
   - List only those minor presentations completed in the last three years

*Insert Chronological List of Minor Scholarly Presentations here* (Text may continue onto the next page as necessary).

D. **Grants and/or other Funded Projects**

1. **External Funding**
   a. **Funded Proposals**
      - List in chronological order all funded proposals for research or creative activities for the last 3 years.
      - For each, indicate the name of the project, your role (e.g., PI, Co-investigator, etc.) and the names of all co-investigators, the name of the funding agency/organization, the amount of funding requested/received, and dates of the project.
      - Number all entries.
      - Indicate whether the awards were the result of a refereed/competitive process or an invited sole source contract.

*Insert Chronological List of Funded Proposals here* (Text may continue onto the next page as necessary).

   b. **Proposals Under Review**
      - List in chronological order all funding proposals that are currently under review.
      - Follow the guidelines for funded proposals regarding the information on your role, awarding group, co-investigators, dates of proposed project, numbering, nature of review process, etc.

*Insert Chronological List of Proposals Under Review here* (Text may continue onto the next page as necessary).

   c. **Other Proposals Submitted, Not Funded**
• List in chronological order all unfunded proposals that were submitted
• Follow the guidelines for funded proposals regarding the information on your role, awarding group, co-investigators, dates of proposed project, numbering, nature of review process, etc.

Insert Chronological List of Unfunded Proposals here (Text may continue onto the next page as necessary. List only those submitted since appointment at KU or since last promotion as applicable).

2. Internal Funding
• List in chronological order all internal proposals for funding of research or creative activities in the last 3 years
• Follow the guidelines for external proposals regarding the information on your role, awarding group, co-investigators, disposition of the proposal, dates of award, numbering, nature of review process, etc.

Insert Chronological List of Internal Funding here (Text may continue onto the next page as necessary).

E. Honors and Awards

Provide a chronological list below of honors, prizes, awards, etc., received for research or creative work since appointment at the University of Kansas or since the previous promotion as appropriate.

Insert Chronological List of Honors and Award for Research or Creative Work here (Text may continue onto the next page as necessary).
Section III  Record of Service

The service record will be evaluation on the amount of service performed, the quality of the service and the relative workload associated with each activity.

For the annual evaluation an assessment will be made on the record over the last 3 years. However, assistant professors and associate professors wishing to be considered for promotion to full professors within a three year time frame should list all service performed since your last promotion/hire to allow the committee to make some assessment of the record for future promotion. Full professors only need to provide information for the last three years.

A. University of Kansas Service

List service under the categories: department/unit (if applicable), school (or CLAS, Libraries, Research & Graduate Studies, as appropriate), and university. Indicate membership (with dates) and leadership roles on task forces, councils, committees at each level.

Insert chronological list of university service here under the categories above (Text may continue onto the next page as necessary).

B. Professional Service outside the University

List your professional service under the categories: Local and State, Regional, National, International. Include service as a journal editor or editorial board member, offices held in professional organizations, membership on grant review panels, etc. Do not include volunteer activities at any level that are unrelated to your professional expertise.

Insert chronological list of professional service here under the categories above (Text may continue onto the next page as necessary).

C. Chronological list of honors, prizes, and awards received for service.

Insert chronological list of honors, prizes, and awards for service here (Text may continue onto the next page as necessary).
Department of Geography
University of Kansas

Self Study for 2010 Program Review

APPENDIX E

Graduate Programs in Geography
INSTRUCTIONS FOR SUBMISSION OF GRADUATE STUDENT APPLICATIONS

At the University of Kansas, a single application form covers admission and financial aid. The items listed below must all be received before the department can make an evaluation and admit a new student to the program. Those who wish to enter in the fall semester and to be considered for a fellowship or teaching assistantship must submit all materials by January 15. Applications for admission only should be submitted no later than June 1 for the fall term, November 1 for the spring term, or April 1 for the summer session.

The following items must be received to complete the application file:

Items 1, 2, and 3 should be sent to: Graduate School, 1450 Jayhawk Blvd., Room 300, University of Kansas, Lawrence, KS 66045-7535.

1. A completed Application Form. To apply on-line or print an application form, see the website at www.ku.edu/~graduate/.

2. A Statement of Interest and Goals. This is the last page of the on-line application form, or please attach to the paper application. The Graduate Studies Committee places considerable importance on the thoughtfulness of your remarks – in particular, we are interested in learning about (1) your specific interests within geography and why they are important and interesting to you, (2) what you envision as your educational and career objectives and how a degree from KU Geography helps to meet those objectives, and (3) which of our faculty members you think would be an appropriate graduate advisor and mentor.

3. The required application fee.

Items 4 through 6 should be sent to: Geography Department, 1475 Jayhawk Blvd., Room 213, University of Kansas, Lawrence, KS 66045-7613.

4. One copy of all college transcripts, as current as possible. If courses are in progress, please inform us as to department/program, course number, and title.

5. Graduate Record Examination (GRE) scores. All students applying for admission must submit official GRE scores. For information regarding test centers and dates for examinations, see the website of the Educational Testing Service at www.ets.org or the Information Bulletin for the GRE Program available at any university's counseling office. You also may write the Educational Testing Service at P.O. Box 6000, Princeton, New Jersey 08541-6000.

6. Three confidential letters of recommendation sent by referees who are familiar with your academic and/or professional activities and who can address your likelihood of success in graduate school. If possible, we prefer letters from professors, but applicants returning to school after a lengthy absence may substitute letters from supervisors. Note that it is the responsibility of the applicant to request and to confirm that the required letters have been sent by the deadline. Applicants must use the Graduate Letter of Recommendation form.
We hope that most of your inquiries will be answered by the enclosed materials. If you have additional questions, please contact the Graduate Studies Committee or a member of the departmental faculty in your area of professional interest.

**ADDITIONAL REQUIREMENTS FOR INTERNATIONAL STUDENTS**

1. Completion of the Test of English as a Foreign Language (TOEFL) examination or other evidence of English proficiency.

2. Completion of the Financial Resources section on the international graduate student application including the necessary documentation.

3. In addition, the Test of Spoken English (TSE) and a telephone or personal interview are required before a non-native English speaker can be offered a teaching assistantship. The minimum acceptable score on the TSE is 50
The members of the staff, their major specialties, and current research interests are as follows:

DAVID A. BRAATEN (Professor): Atmospheric science, remote sensing, climate change. Research on polar ice-sheet characteristics and snow-accumulation processes.

J. CHRISTOPHER BROWN (Associate Professor): Political ecology, biogeography, tropical environments, Latin America. Research on issues of sustainability in the Amazon.

NATHANIEL A. BRUNSELL (Assistant Professor): Land-atmosphere interactions, remote sensing, micrometeorology. Research on the spatial and temporal variability of water, carbon, and energy cycling.

SO-MIN CHEONG (Assistant Professor): Economic, sustainable resources, East Asia. Research on the integration of science and policy.

JEROME E. DOBSON (Professor): Geographic information science, cultural geography. Research on the integration of remote sensing, geographical information science, and geography.

STEPHEN L. EGBERT (Associate Professor): Remote sensing, geographic information science. Research in phenologically based land-cover mapping and change-detection strategies using multitemporal satellite imagery.

JOHANNES J. FEDDEMA (Professor): Climatology, water resources, geographic information science. Research on global climate change, African water issues, and watershed modeling.

PETER H. HERLIHY (Associate Professor): Cultural and historical geography, Latin America. Research on indigenous peoples, conservation, and participatory mapping in Central America.

DANIEL R. HIRMAS (Assistant Professor): Pedology, soil geomorphology, soil mineralogy. Research on soil-landscape relationships, biogeochemical cycling of desert soils, and pedogenic modeling.


WILLIAM C. JOHNSON (Professor): Fluvial geomorphology, geoarchaeology, palynology. Research on historic and prehistoric changes in river systems and Late Quaternary environments.

XINGONG LI (Assistant Professor): Geographic information science, spatial analysis. Research on computational methods for the analysis of spatial data.

GEORGE F. MCCLEARY, JR. (Associate Professor): Cartography, behavioral systems, human factors. Research on map design, map use, and cognitive mapping.

DAVID B. MECHEM (Assistant Professor): Physical meteorology, cloud and mesoscale dynamics. Research on cloud microphysics and dynamics, mesoscale processes, numerical modeling, and boundary layer clouds.
GARTH A. MYERS (Professor): Cultural and political geography, development, Sub-Saharan Africa. Research on urban and regional development in Eastern Africa, cultural studies, and social theory in geography.

SHANNON R. O’LEAR (Associate Professor): Cultural and political geography, environmental policy, Russia, the Caucasus and Central Asia. Research on resource conflict in Azerbaijan.

JAMES R. SHORTRIDGE (Professor): Cultural and historical geography, United States. Research on regionalism and sense of place.

TERRY A. SLOCUM (Associate Professor): Cartography, geographic information science, Quantitative Methods. Research on visualization and animation.

DONNA F. TUCKER (Associate Professor): Atmospheric science. Research on numerical modeling and mesoscale precipitation systems.

KEES VAN DER VEEN (Professor): Glaciology, ice-climate interactions, global environmental change. Research on dynamics and mass balance of fast-moving ice streams and outlet glaciers in Greenland and Antarctica, remote sensing applications for glacial geomorphology.

BARNEY L. WARF (Professor): Economic geography, social theory, urban geography. Research on telecommunications, cyberspace, elections.


AFFILIATED FACULTY:

STEVEN R. BOZARTH (Adjunct Assistant Professor): Paleoenvironmental reconstruction, phytolith analysis, landscape evolution.

ROBERT W. BUDDEMEIER (Courtesy Professor): Hydrologic systems, water resources, climate change.

MARK E. JAKUBAUSKAS (Courtesy Associate Professor): Remote sensing, geographic information science, biogeography.

KYLE E. JURACEK (Adjunct Assistant Professor): Hydrology, fluvial geomorphology, geographic information science.

ROLFE D. MANDEL (Courtesy Associate Professor): Soils, geoarcheology, quaternary environments.

EDWARD A. MARTINKO (Courtesy Professor): Remote sensing, environmental systems.

BARBARA G. SHORTRIDGE (Lecturer): Cultural and urban geography, gender issues, American foodways.

The department prides itself in having unusually close staff-student relationships both in and out of the classroom. An informal atmosphere for discussion is maintained whenever possible. The Geography Graduate Student Association acts as a sounding board for student concerns and as a mechanism for representation in departmental committees and faculty meetings. In addition, a
more informal group called the Geoclub sponsors colloquia, picnics, coffee hours and similar activities.

FACILITIES

The department, located in Lindley Hall on the Lawrence campus, has a broad range of computing resources available for faculty and students. All classrooms and offices have internet access. Several classrooms are multimedia ready while instruction in others can be enhanced with portable LCD projectors.

Students have 24-hour access to departmental computing facilities, which currently contain Pentium 3 and Pentium 4 Windows-based machines. Thirty-six of these units, for general geographic-information-system and image-processing instruction, are housed within two identical multipurpose laboratories. Another twelve computers are in a separate facility dedicated to graduate student research and seminars. Scanners, digitizers, and laser printers also are available within these labs while color printing up to poster size may be done (on a case-by-case basis) at the university’s Cartographic Services office which is located within the department. Ten LINUX computers also are available within the department’s Weather Lab/Weather Service. These run meteorological software packages such as Integrated Data Viewer, GEMPAK and McIdas.

All computers in the department are equipped with ArcGIS 8.3, Imagine 8.6 and ENVI 3.6. Other software within the labs includes Photoshop, Freehand, SPSS, and Microsoft Office suite. Departmental computing facilities are complemented by various university-sponsored labs around campus and cooperative arrangements with the Kansas Applied Remote Sensing program and the Kansas Geological Survey.

In addition to computing facilities, the department has well-equipped laboratories for students working in traditional cartographic production, soils/geomorphology, biogeochemistry (stable isotopes), palynology, and climatology/atmospheric science. The department also maintains an instructional map library and has easy access to extensive map collections at the Spencer Research Library and the university map library.

GRADUATE PROGRAMS IN GEOGRAPHY

The department graduate program emphasizes physical geography, geographic information science (cartography-GIS-remote sensing), and cultural/regional studies. Each is well supported by faculty strength throughout the university and by appropriate laboratory and library facilities. Physical geography concentrations include atmospheric science/climatology, fluvial geomorphology and landscape evolution (both complemented by work in geology), plant geography, and soils. The geographic information science program is a highly interconnected unit that builds on pioneering work begun in cartography and remote sensing at Kansas in the 1950s under George Jenks and David Simonett, respectively. Current remote-sensing research emphasizes visual and digital analysis whereas the GIS program stresses computational methods of analysis and applications in natural resources; cartographers concentrate primarily on design, visualization, and interactive statistical mapping. The cultural/regional programs take advantage
of Kansas’s well-developed interdisciplinary language and area-studies centers for Africa, East Asia, Latin America, and Russia-East Europe. The last three of these officially are designated “National Resource Centers” by the U.S. Department of Education. The university’s American Studies program and its T.R. Smith map collection are similarly regarded as among the best in the nation. Specific strengths within the cultural realm include political ecology, historical and humanistic geography, and development studies.

Overall supervision of the graduate program is the responsibility of the Graduate Studies Committee (GSC). This committee evaluates applications and makes recommendations to the department concerning admission and financial support of prospective students. It periodically reviews and evaluates each student’s program and achievement and also approves specified stages in an individual’s progress toward a graduate degree. Communication with the GSC is usually through written petition, although committee members will try to answer questions at any time.

**M.A. PROGRAM AND PROCEDURES**

**Admission and Prior Work.** Entering students are expected to have had previous work comparable to a minimal bachelor’s degree in geography. More specifically, to attain full standing as an M.A. candidate, a person must have had a course or equivalent background in each of the following fields: physical geography, human geography, regional study, and geographic information science (e.g., cartography, quantitative methods, GIS, remote sensing, field methods). If the student needs to take formal coursework to make up a deficiency, these credit hours will not count toward the M.A. A deficiency may be removed by 1) passing the specified course with at least a "C," 2) auditing the course and receiving a letter from the instructor indicating that the course requirements have been met, or 3) passing a written and/or oral examination comparable to the final exam.

**Program and Course Requirements.** The program at the M.A. level continues the general training of the bachelor’s degree, but also provides for the development of some concentration in preparation for employment or further study. Students are also encouraged to take work outside the department to supplement and strengthen their programs, usually to a maximum of six hours. All candidates must pass an oral examination over their coursework and then submit and successfully defend a thesis in a final oral examination. The course requirements are as follows:

**General -** One course in each of the following areas of study:
- Geographic Information Science
- Human Geography
- Physical Geography
- Regional Geography

**Required -** 805 (Introduction to Graduate Study), 806 (Basic Seminar), and 714 (Field Experience). Students wanting to petition for an exemption or alternative to GEOG714 should examine the characteristics of the course, which are listed under the course description at the back of this booklet.

**Electives -** at least three courses in an approved area of concentration. (Courses taken to meet the "general" requirement may not be double counted here.)
Thesis - 1-6 hours

Total credit hours: a minimum of thirty

**JOINT MASTER'S PROGRAM IN GEOGRAPHY AND URBAN PLANNING**

This interdisciplinary program combines in three years the degrees of MA in geography and Master of Urban Planning. Details are available in a separate booklet available either online or from either of the two departments. Entering students should submit separate applications to each department. The joint degree entails 61 credit hours of coursework (39 in planning, 22 in geography) including a thesis.

**PH.D. PROGRAM AND PROCEDURES**

**Prerequisites and Admission.** Normally aspirants for the doctorate will have satisfied requirements comparable to the University of Kansas M.A. in geography, including the thesis. Students from other disciplines may find it necessary to eliminate deficiencies early in their program. Under special circumstances, students may proceed directly from the B.A. to the Ph.D., but this is done only at the discretion of the department through approval by an advisor and the GSC.

**Programs and Coursework.** The doctoral program generally includes sixty hours of work beyond the M.A. of which eighteen to thirty hours will be satisfied by the dissertation. No specific credit-hour figure can be set for a doctoral degree because each program is designed on an individual basis. Of greater importance is the student's demonstrated competence in the selected area(s) of specialization. The program is comprised of formal courses, seminars, individual research and reading, and preparation of a dissertation. Although no "outside minor" is formally required of candidates, the department favors study in auxiliary departments.

Programs are planned with the advisor and then approved by the GSC. Such approval must be secured at latest by the second month of the second semester of study. Changes in the approved program can be initiated by the student at any time but must be approved by the advisor and the GSC.

**Required Courses.** Geography 714, Field Experience, is the only required course at the Ph.D. level. This three-week summer course is designed to familiarize the student with field techniques in both physical and human geography. Students wanting to petition for an exemption or alternative to GEOG714 should examine the characteristics of the course, which are listed under the course description at the back of this booklet.

An advisor, upon review of the student's record, may recommend Geography 805 and/or Geography 806 to an incoming Ph.D. student.

**Major Areas of Study.** The capabilities and interests of the department fall into four areas of study: geographic information science, physical, human, and regional geography. A student concentrating within one of these divisions will develop a program in consultation with professors in that area. This program usually will include work in other aspects of geography and related disciplines. A student also may develop a second concentration if he or she takes at least nine hours in that specialty and includes a professor from that second area on the committee for the comprehensive examination. This second area of concentration may lie outside of geography.
MAJOR AREAS OF STUDY FOR THE PH.D.

I. Geographic Information Science

Cartography: McCleary, Slocum
Geographic Information Systems: Dobson, Egbert, Feddema, Li, Slocum
Remote Sensing: Braaten, Brunsell, Egbert

II. Physical Geography

Biogeography: Brown, W. Johnson
Climatology: Braaten, Brunsell, Feddema, Mechem, Tucker, van der Veen
Geomorphology: W. Johnson, Hirmas
Pedology: Woods, Hirmas

III. Human Geography

Cultural: Herlihy, J. Johnson, Myers, O'Lear, Shortridge, Woods
Historical: Herlihy, Shortridge, Woods
Political: Myers, O'Lear, Warf
Regional Development: Brown, Cheong, Warf
Urban: Myers, Warf

IV. Regional Geography

Africa: Myers
East Asia: Cheong
Latin America: Brown, Herlihy, Woods
Russia and East Europe: O'Lear
United States: Shortridge
Oceania: J. Johnson

The level of competence attained in the major study area should be such that the graduate can teach upper-level seminars and conduct research in that area. If a second area of concentration is chosen, it is often complementary to the first. Here the graduate is expected to have knowledge sufficient to teach undergraduate courses at the introductory and intermediate levels, even if teaching is not the ultimate career objective.

In addition to the area(s) of specialization, the candidate is expected to have a broad background in general geography as well as knowledge of those research skills most appropriate to the areas of specialization. This background is primarily gained through coursework requirements in the bachelor’s and master’s degree programs, which are prerequisites for Ph.D. work.

FLORS Requirement. Foreign language or research skills (FLORS) are important elements of any graduate program. Coursework necessary to meet this requirement should commence early in the program. Selection of a particular FLORS option must be approved by the student’s advisor.

Possible options include the following:

1. Demonstrate a reading knowledge of two foreign languages relevant to the student's research interest. Usually this is accomplished by passing an examination with an appropriate member of the geography faculty (or with a member of a language department faculty if expertise is not
available within the department) or by completing French 100, German 101, Italian 100, Latin 101, Danish 101, Russian 101, and/or Spanish 100. See the Graduate Catalog for details.

2. For a single foreign language, demonstrate a reading, writing, and speaking capability sufficient to enable the student to do field work without an interpreter. An examination for competence, including written and oral portions, will be conducted by a member of the geography faculty having expertise in that language or an examiner from the appropriate language department.

3. Demonstrate a satisfactory capability in two research skills from the list below. The actual courses must be approved by the student's advisor with the agreement of the GSC.
   a. Computer Science--complete a computer-programming course in the Department of Electrical Engineering and Computer Science (e.g., C++, Fortran, or Visual Basic) and create a substantial computer program that illustrates a geographic application of that language. Both the course and computer program must be approved by the Computer Programming Committee of the Department of Geography.
   b. Mathematics--pass nine hours of courses at the 500 level or above.
   c. Statistics--pass nine hours of courses outside the Geography Department at the 500 level or above.
   d. An outside discipline relevant to the student's field(s) of specialization within geography, e.g. anthropology, biology, economics, geology, history, psychology--pass nine hours of courses at the 500 level or above, normally at KU, including at least one research seminar. (Atmospheric science courses may be used for this option, but not courses listed or cross-listed as geography).

4. Demonstrate a reading knowledge in one foreign language and a satisfactory capability in one of the research skills listed above.

Students whose native language is not English may, in some cases, use their native language to fulfill part of the reading-knowledge aspect of FLORS. The Graduate School has ruled that the student must, however, combine this native-language option with either reading knowledge of another non-English language (i.e. option 1 above) or one of the research skills mentioned in option 3. Using a native language to fulfill part of the FLORS requirement must have advisor and GSC approval.

Residency Requirement. In order to fulfill the university’s residency requirement, a student must be involved full-time in academics for two semesters. One of these semesters can be a summer session. Full-time is defined as any of the following combinations:

1) 9 credit hours per semester; or 6 credit hours per summer session;
2) 8 credit hours per semester with a 30% TA or RA;
3) 7 credit hours per semester with a 40% TA or RA;
4) 6 credit hours per semester with a 50% TA or RA;
5) 5 credit hours per summer session with a 25% TA or RA;
6) 3 credit hours per summer session with a 50% TA or RA.

SOURCES OF FINANCIAL AID
Graduate Assistantships. State regulations permit departmental aid in the form of teaching assistantships to be offered only one year at a time. Assuming good performance by an incoming T.A. in his or her coursework and teaching duties, however, the department is committed to continuing these awards through a second year for an M.A. student and through a second and third year for a Ph.D. student.

Research assistantships are awarded by invitation through the professor holding the grant or other source of funding. Normally, a student is selected because of special research skills that integrate well with the research project.

Stipends for half-time teaching appointments currently are $16,482 for nine months. All teaching and research appointments made at 40% of full time or more carry eligibility for tuition at the reduced staff rate. This rate is set on a per-credit-hour basis, and at present is the same as the Kansas resident tuition. Teaching assistants also receive a tuition waiver based on the percentage of time they are appointed. For example, a half-time appointment currently receives 100% waiver of tuition. In addition, three hours of required campus fees are paid. The remaining campus fees must be paid by the student, however. Nonresident students appointed for less than 40% of full time pay the nonresident tuition. Teaching and research assistantships are normally available only to full-time, degree-seeking students. Graduate students in geography are eligible to apply for teaching assistantships in several other department and programs at KU. Please refer to our website www2.ku.edu/~geography.

Madison A. and Lila Self Graduate Fellowships. These competitive, four-year fellowships are offered by the university to superior students seeking the Ph.D. The current stipend is $24,500 each year for four years plus tuition and fees. The Self program is restricted to science students, which includes physical geography and geographic information science areas of concentration.

Graduate Initiative for Diversity
- Graduate Fellowship for Diversity
- Graduate Assistantship for Diversity
- Eunice Harkey Melik Graduate Minority Scholarship

The Graduate Initiative for Diversity is intended to increase the participation in graduate study at KU by students who are from groups underrepresented in their field of study. A limited number of one-year fellowships and assistantships are available to students who have been admitted to our graduate programs no earlier than the spring semester of 2009. Nominees are expected to possess an outstanding academic record. The fellowships provide a one-year stipend of $20,000 plus payment of up to 9 graduate credit hours of tuition and fees for the fall and spring semesters. Exceptions for tuition of up to 12 graduate credit hours will be considered on a case-by-case basis. Teaching and research assistantships provide compensation at the normal rate for such appointments. Teaching and research assistants will receive a tuition waiver or in-state fee status in accordance with his/her research or teaching appointment. Awards to students will be during their first year of study. Departments are expected to offer a half-time teaching or research assistantship for the remaining years of study, provided the student maintains good academic standing and satisfactory employment performance.

The following must be submitted with the nomination: completed nomination coversheet; nomination statement by department, including a statement that the student is from a group underrepresented in their field of study; student’s personal essay; student’s curriculum vitae/resume; transcripts of all college or university work; copy of GRE scores or other method of testing and/or evaluating quality; three letters of reference, and signed access waiver form indicating student’s access to files or recommendations.
Other Employment Opportunities. Beyond the above sources of income, the department has numerous connections with other units on campus that employ graduate students. Several research assistantships are normally offered through the Kansas Geological Survey, the Kansas Applied Remote Sensing Program, KU Cartographic Services, and other units. In addition, student hourly and work-study employment is advertised through the University Career Center.

GEOGRAPHY CURRICULUM

The Department of Geography offers a broad undergraduate curriculum as well as intensive graduate training. Students can obtain instruction in the areas of regional, physical, and cultural geography. Emphasis is also placed on geographic information science and methodology, including the areas of cartography, GIS, remote sensing, and quantitative methods. Interdisciplinary research is encouraged.

The department offers a full graduate program leading to both the M.A. and the Ph.D. Degree. Since many students applying for graduate work in geography do not have undergraduate degrees in the discipline, undergraduate course offerings are listed below. Students having undergraduate deficiencies may be required to take one or more of these courses in addition to their M.A. or Ph.D. work.

A. Undergraduate Courses.

GEOG 100 World Regional Geography. (3) An introductory survey of the environmental setting, historical formative periods, and present-day issues that distinguish the major culture areas of the world.

GEOG 101 World Regional Geography, Honors. (3) An introductory survey of the environmental setting, historical formative periods, and present-day issues that distinguish the major culture areas of the world. Prerequisite: Open only to students in the College Honors Program or by consent of instructor.

GEOG 102 Principles of Human Geography. (3) An examination of the relationships between humans and their environments. The course introduces students to basic concepts in human geography relating to economic activities, landscapes, languages, migrations, nations, regions, and religions. Serves as the basis for further course work in cultural, economic, political, population, and urban geography.

GEOG 103 Principles of Human Geography, Honors. (3) An introduction to how human societies organize space and modify the world about them. Resultant patterns on the landscape are interpreted through principles of space perception, cultural ecology, diffusion, land use, and location theory. Comparisons are made between urban and rural areas and between subsistence and commercial societies. Prerequisite: Open only to students in the College Honors Program or by consent of instructor.

GEOG 104 Principles of Physical Geography. (3) The components of the physical environment are discussed in order to familiarize the student with their distributions and dynamic nature. Major topics include the atmosphere, landforms, soils and vegetation together with their interrelationships and their relevance to human activity. This course and Geography 105 together satisfy the laboratory science requirement.

GEOG 105 Introductory Laboratory in Physical Geography. (2) A laboratory course designed to complement Geography 104 in satisfying the laboratory science requirement. It is required for geography majors. Laboratory exercises include a wide variety of analyses using data on the atmosphere, hydrosphere, biosphere and lithosphere. Prerequisite: GEOG 104 which may be taken concurrently.
GEOG 107  **Principles of Physical Geography, Honors**  (3)
Interactive processes among the systems of the earth are studied and discussed. Major topics include vegetation, soils, landforms, water, the atmosphere, and cycles of matter between these portions of the earth. The course includes lectures and critical discussions to address study problems in physical geography.  
**Prerequisite:** Open only to students in the College Honors Program or by consent of instructor.

GEOG 111  **Maps and Mapping.**  (4)
How do people find their way to there or just around? Simple—they use maps. Maybe not maps on pieces of paper but instead in their heads: mental maps. Different people have different maps, even of the same place. Mapping is an ancient form of communication that has created ideas and opinions, promoted understanding and confusion. A non-technical approach to the transformation of space onto maps, their content and structure, and to their role and impact in human activity, past and present. Neither background in geography nor artistic skills are required.

GEOG 148  **Scientific Principles of Environmental Studies.**  (3)
Same as EVRN 148
This course presents an overview of our understanding of environmental processes and environmental issues. Topics include scientific principles, population and resource issues, pollution and global change, and land use and management. This course gives students a rigorous understanding of interactions between humans and their environment, and provides students with a scientific basis for making informed environmental decisions.

GEOG 149  **Scientific Principles of Environmental Studies, Honors.**  (3)
Same as EVRN 149
This course presents an overview of our understanding of environmental processes and environmental issues. Topics include scientific principles, population and resource issues, pollution and global change, and land use and management. This course gives students a rigorous understanding of interactions between humans and their environment, and provides students with a scientific basis for making informed environmental decisions.  
**Prerequisite:** Open only to students in the College Honors Program or by consent of instructor.

GEOG 150  **Environment and Society.**  (3)
Same as EVRN 150
An introduction to geographic approaches to the study of the environment, emphasizing societal and cultural factors that influence human interaction with the biosphere, hydrosphere, lithosphere, and atmosphere. The course involves analysis of a broad range of contemporary environmental issues from the local to global scales.

GEOG 210  **Computers, Maps and Geographic Analysis.**  (3)
This course will introduce students to a number of different methods for the visualization, representation and analysis of geographical phenomena. Both field and computer-based techniques will be employed to demonstrate the concept of experimental design and the collection, processing, and analysis of geographical data. Topics include: 1) the unique nature of geographic data; 2) mapping techniques and technologies; 3) geographical information systems; 4) remote sensing (aerial photography and satellite imagery); and 5) methods of geographical analysis (e.g., statistic and spatial modeling).

GEOG 304  **Environmental Conservation.**  (3)
Same as EVRN 304
A survey of current methods of describing and modeling the function, structure and productivity of natural and anthropogenically modified earth resource systems, along with a discussion of contemporary views of what constitutes a natural landscape. Fundamental natural science principles about the interplay among lithospheric, atmospheric, hydrospheric, and biospheric components of earth systems are emphasized. Uses of natural resources, including fossil fuels, minerals, and water are described with attention to the earth’s total energy budget. Human activities that affect preservation, conservation, and multiple uses of earth regions receive attention. Systems under stress through population and other contemporary forces serve as examples.

GEOG 311  **Map Conception and Development.**  (4)
An examination of the map production process with emphasis on two areas: the *mental map* formed during interaction with the environment, and the *map as a physical object*, which emerges from mapping activity. A local area will serve as
the laboratory/environment for the mapping activity including production and use.

GEOG 316 Methods of Analyzing Geographical Data. (4)
Introduces the benefits and limitations of using quantitative methods to analyze geographical problems. Covers traditional descriptive (e.g., measures of central tendency) and inferential statistics (e.g., hypothesis testing), but also inherently geographical approaches such as shape and point pattern analysis, and spatial autocorrelation. Laboratory emphasizes using the computer to explore and analyze geographical problems.

GEOG 319 Topics in Techniques:_________. (1-3)
An investigation of special topics in Techniques. May include coursework in cartography, GIS, or remote sensing. May be repeated if topic differs.

GEOG 321 Climate and Climate Change. (3)
Same as ATMO 321
This course is designed to introduce students to the nature of the Earth's physical climate. It will introduce the basic scientific concepts underlying our understanding of our climate system. Particular emphasis will be placed on energy and water balances and their roles in evaluating climate change. The course will also evaluate the impact of climate on living organisms and the human environment. Finally, past climates will be discussed and potential future climate change and its impact on humans will be evaluated. Prerequisite: GEOG 104 or ATMO 105.

GEOG 331 Regional Geomorphology of the United States. (3)
This course examines forces and processes affecting the earth's surface, and furthermore identifies and describes the physiographic regions that are the result of these processes. Special efforts are made to explore various photographic resources, satellite imagery, and internet sources of geomorphic data from a regional perspective since there is no wholly satisfactory text available for the course. A research paper is required. Prerequisite: An introductory earth science course or consent of the instructor.

GEOG 332 Glaciers and Landscape. (3)
Elements from glaciology, geology, and climatology are merged to examine the interactions between glaciers and their natural environments, including the processes involved in glacier formation, the relationship between glaciers and climate, the mechanisms of glacier flow, and interpretation of the Earth's glacial record. Emphasis is placed on an interdisciplinary approach to study environmental change and paleoclimate reconstruction. Prerequisite: GEOG 104 or GEOL 101, or consent of instructor.

GEOG 335 Introduction to Soil Geography. (4)
This course focuses on the properties and processes of soils as they occur in their environment. The student is introduced to the nature of soil as it functions as a body; genesis of soils; properties of soil solids especially colloids; soil chemical composition, properties, and reactions; interaction between solid, liquid, and gaseous components in soils; plant-soil-water relationships; biological interactions with soil; classification of soils; and the distribution of soils on the landscape. Laboratory section is required. Prerequisite: GEOG 104 or GEOL 101 or consent of instructor; BIOL 104 and CHEM 184 or CHEM 185 recommended.

GEOG 338 Introduction to River Systems. (3)
A course on fluvial geomorphology. Topics include the drainage basin, fluvial processes, river channel adjustment and forms, human disturbance and geomorphic response, and research methods in fluvial geomorphology. Field trip. Prerequisite: GEOG 104

GEOG 339 Topics in Physical Geography:_________. (1-3)
An investigation of special topics in Physical Geography. May include coursework under headings of soils, vegetation, climate, or geomorphology. May be repeated if topic differs.

GEOG 350 Physical Geography of Africa. (3)
Same as AFS 350
This course is a survey of the basic physical features of the African continent including structure and relief, rivers and lakes, soils and mineral resources. It includes characteristics and processes of African climates, and the ecology of Africa's four major biomes: tropical rain forest, savanna, steppe, and desert. Climatic and environmental variations of the past, emergence of humankind, and development of pastoral and farming systems are discussed. Contemporary environmental concerns also include deforestation and desertification, the impacts of drought, methods for monitoring African
environments, and Africa's prospects in a 21st century suffering from global warming.

GEOG 351 Africa's Human Geographies. (3)  
Same as AAAS 351  
An introduction to historical, cultural, social, political, and economic issues in Africa from a geographic perspective. The course begins with the historical geography of humanity in Africa, from ancient times through the present. Other topics include cultural dynamics, demography, health, rural development, urbanization, gender issues, and political geography. Case studies from Eastern and Southern Africa will be used to illustrate major themes.

GEOG 352 Economic Geography. (3)  
This course offers an overview of contemporary economic geography with an underlying theme of uneven regional development. Topics examined include: the historical context in which capitalism emerged; the major theoretical approaches used to understand the temporal and spatial dynamics of capitalist society; a series of case studies of different economic sectors; and the global economy, including its development with respect to colonialism, neocolonialism, international trade, third world development, and population growth.

GEOG 357 History and Philosophy of Geographic Information Science. (3)  
An examination of the development of geographic information science (GISci) from its roots in traditional geography, cartography, and remote sensing to modern geographic information systems (GIS). GIS will be explored as a new scientific instrument, a "macroscope," for representing and analyzing complex earth processes, both physical and cultural. The societal benefits and risks of GIS will be demonstrated and discussed.

GEOG 358 Principles of Geographic Information Systems. (4)  
An introduction to computer-based analysis of spatial data. Covers basic principles of collecting, storing, analyzing and displaying spatial data. Emphasis is on problem-solving activities using common spatial analytical techniques (e.g., map overlay). The student will gain extensive hands-on experience with state-of-the-art GIS software.

GEOG 370 Introduction to Cultural Geography. (3)  
Charts some of the major lines of research in cultural geography including critical theory, political economy, poststructuralist thought, feminism, and global consumption. Through fieldwork, diverse research methods are applied to issues such as community development, cultural patterns on the landscape and global impacts on local economies.  
Prerequisite: GEOG 100, 101, 102 or 103; or consent of instructor.

GEOG 371 Environmental Geopolitics. (3)  
Same as EVRN 371  
This course is structured by a framework of geopolitics and critical geopolitics. We will engage with literature that demonstrates critical thinking about how human relationships with the biophysical world are portrayed and politicized. We will examine key contributions to the environmental security, resource conflicts, and related literatures. We will discuss how and why the environment is featured in debates about security and conflict as well as geopolitical assumptions on which these debates build. Learning objectives for this course include: 1) develop and apply, in writing and in discussion, critical thinking skills with particular attention to geopolitical interests, 2) develop and demonstrate an understanding of key debates about environment and security, resource conflicts, and the construction of environmental fears, 3) develop and demonstrate an ability to identify and discuss how themes in the course are evident in mainstream media and public debate.

GEOG 375 Intermediate Human Geography. (3)  
An examination of processes of cultural-economic interaction and patterns of human activity on a global scale. The topics cover the whole spectrum of human geography, with focus on urban-economic development, innovation and diffusion, and trade. Each week the third hour will be devoted to discussion of topics dealt with in lectures presented during the first two hours.  
Prerequisite: Introductory course in Geography or consent of the instructor.

GEOG 377 Urban Geography. (3)  
This course explores the city from the multiple perspectives of its inhabitants. The cultural viewpoints of place, gender, age, and ethnicity are stressed, but traditional economic topics such as urban hierarchy, functions of the city, suburbanization, and ongoing changes in core and peripheral areas also receive attention.
distinctive landscapes of individual North American cities are emphasized, but examples also are drawn from throughout the world.

GEOG 379  Topics in Cultural Geography:  _______.  (1-3)
An investigation of special topics in Cultural Geography. May include coursework under headings of culture theory, material culture, language, foodways, or religion. May be repeated if topic differs.

GEOG 390  Geography of the United States and Canada.  (3)
Same as AM S 390
A study of the different physical, economic, and cultural settings in the United States and Canada which form the basis for the various forms of livelihood. Emphasis is on the United States. 
Prerequisite: An Introductory geography course or background in United States or Canadian history, social science, or culture or consent of the instructor.

GEOG 395  Environmental Issues of: ______.  (3)
This regional geography course examines contemporary environmental issues of a particular region of the world based on the expertise of the professor. Course emphasis is on the interaction of natural, socio-economic, and cultural factors of development that give rise to environmental problems. Students learn how local, national, and international government and non-governmental stakeholders address environmental problems. Course may be repeated with different professors.

GEOG 396  China's Geographies.  (3)
An appreciation of how China and the Chinese way of life has evolved. Confucianism, Buddhism, Taoism, and communism are examined as the bases of Chinese culture values. These values are then set against a highly varied physical and economic landscape to show how an elaborate and complex society has come into being. Contemporary developments are discussed only as a part of the entire spectrum of Chinese history.

GEOG 397  Geography of Kansas and the Plains.  (3)
A study of the different physical, economic, and cultural settings in Kansas and the Plains that form the basis for various kinds of livelihood.

GEOG 399  Topics in Regional Geography:  _______.  (1-3)
An investigation of special topics in Regional Studies. May include coursework related to a specific country or region. May be repeated if topic differs.

GEOG 410  Human Biogeography, Honors  (3)
Same as BIOL 410
Natural science principles of evolution and earth change are used to examine distributions of the populations, economies, and resource uses of humans. Lecture and discussion. 
Prerequisites: BIOL 152 or 153 or GEOG 107 and membership in the University Honors Program, or consent of the instructor.

GEOG 418  Workshop in Production Cartography.  (1-3)
Theory and practice of map production and other related graphics using the latest graphic and GIS software. Projects vary but include the processes of design and production, editing and quality control, and a final printed or operational product. Involves a weekly consultation session and laboratory time in KU Cartographic & GIS Services. 
Prerequisite: Completion of GEOG 311 with a grade of B or better and consent of instructor.

GEOG 433  Biogeography Field and Laboratory Techniques  (3)
Same as EVRN 433
This course provides undergraduate students with practical experience in field data collection techniques and laboratory data analysis methods. During the first half of the semester, students will work in the field using a variety of methods to measure such vegetation characteristics as: cover, density, biomass, leaf area, and canopy architecture. Students will gain experience in the use of field instruments including a spectroradiometer, and techniques for quantifying vegetation biophysical attributes. During the later part of the course, students will learn to summarize their field data and examine relationships between the vegetation attributes and measurements made using remote sensing instruments. Recommended: Geog 316 or an introductory statistics equivalent.

GEOG 458  Geographical Information Systems:  ______. (1-6)
An introduction to the organization and components of geographic information systems and their software. Fundamental concepts and their implementation with applications to physical
GEOG 490 Geographic Internship. (1-6)
Supervised practical experience. The student submits a proposal describing the internship prior to enrollment. Upon acceptance, regularly scheduled meetings with the advisor provide assistance, guidance and evaluation of progress in the professional experience. A written summary of the experience or outcomes of the research project are prepared independently by the student, a representative of the host agency, and the advisor. Total credit not to exceed six hours (typically 80 work hours equate to one academic credit hour)
Prerequisite: 15 hours of geography and permission of instructor.

GEOG 498 Special Topics in Geography. (1-5)
Prerequisite: 15 hours of geography.

GEOG 499 Honors Course in Geography. (2-3)
Open to students with nine hours of upperclass credit in geography, an average of at least 3.5 in all geography courses and a general average of at least 3.25. Includes the preparation of an honors paper and its defense before a committee of at least 2 regular members.

B. Undergraduate and Graduate Courses

GEOG 510 Human Factors. (4)
Same as INDD 510
An introduction to the concepts and theories underlying the study of human-technological systems. Human-machine interfaces and system properties, and the environment are considered. Lecture-discussion sessions are supplemented by computer-supported laboratory and research activities.

GEOG 511 Intermediate Cartography: (Selected topic to be specified). (1-6)
An investigation of special topics in cartography. Can be repeated for different topics.
Prerequisite: A course in cartography and consent of the instructor.

GEOG 513 Cartographic Design. (3)
A study of graphic elements and their role in the physical and perceptual structure of the map image. Concepts and principles of design are stressed with particular emphasis on the figure-ground relationships, color and lettering.
Prerequisite: GEOG 311.

GEOG 514 Visualizing Spatial Data. (4)
Students use Visual Basic or other currently prominent programming language to visualize spatial data. Early projects cover basic principles such as color manipulation and spatial transformations. Later projects involve developing more sophisticated software for data presentation, data exploration, and map animation.
Prerequisite: Some experience with Visual Basic or other programming language.

GEOG 515 Behavioral Systems. (3)
An introductory course in behavioral geography. Examines the development of spatial cognitions (acquisition, organization and use of environmental knowledge), and spatial patterns of behavior based on those cognitions at scales ranging from personal space to world views.

GEOG 516 Applied multivariate Analysis in Geography. (3)
An introduction to the application of multivariate statistical analysis in geography. Techniques covered include univariate and multivariate analysis of variance, multiple regression, logistic regression, principle components analysis, and spatial regression. Practical applications of the techniques in a geographical research context are emphasized. Students will learn how to use statistical packages such as SPSS.
Prerequisite: GEOG 316 or equivalent.

GEOG 517 Data Handling and Map Symbolization. (3)
An analysis of methods for manipulating and symbolizing spatial data. Techniques studied include dot, choropleth, proportional symbol, and isarithmic (contour) mapping. Topics covered include data classification, and the use of color, and automated methods of interpolation (triangulation, inverse distance, and kriging). Emphasis is on developing maps that can be presented to the general public, although some consideration is given to visualization software that can be utilized by individuals to explore spatial data.
Prerequisite: GEOG 111 or GEOG 210 or GEOG 311.

GEOG 519 History of Cartography. (3)
Same as HIST 546
A history of mapmaking worldwide from its origins to the present day; emphasis on maps as historical records of evolving civilizations and cultural landscapes; methods of studying early
GEOG 521  Microclimatology.  (3)
Same as ATMO 521
A study of climatic environments near the earth-atmosphere interface. The course considers rural climates in relationship to agriculture and urban climates as influenced by air pollution and other factors. Emphasis is on physical processes in the lower atmosphere, distribution of atmospheric variables, the surface energy budget and water balance.  
Prerequisite: ATMO 105 and Math 116 or Math 121.

GEOG 526  Remote Sensing of Environment I.  (4)
Same as EVRN 526
Introduction to study of the environment through air photos and satellite imagery, including principles of remote sensing, interactions of electromagnetic energy with the atmosphere and earth's surface, aerial photography, satellite systems, and sensors (electro-optical, thermal, and radar). Emphasis in the latter part of the course is on such applications as global monitoring, land cover mapping, forestry, agriculture, and oceanography. Laboratory emphasizes visual interpretation of aerial photography and satellite imagery and an introduction to digital image processing in the department's NASA Earth Science Remote Sensing Laboratory.  
Prerequisite: basic algebra. GEOG 358 recommended.

GEOG 531  Topics in Physical Geography:  .  (1-3)
An investigation of special topics in physical geography. May include specific coursework under the headings of geomorphology, climatology, soils, vegetation, quaternary, paleoenvironments, hydrology, etc. May be repeated if topic differs.

GEOG 532  Geoarchaeology.  (3)
Same an ANTH 517
Application of the concepts and methods of the geosciences to interpretation of the archaeological record. The course will focus primarily on the field aspects of geoarchaeology (e.g., stratigraphy, site formation processes, and landscape reconstruction), and to a lesser extent on the array of laboratory approaches available.  
Prerequisite: GEOG 104, ANTH 110, or 310.

GEOG 535  Soil Geography.  (4)
A broad study of the principles and properties of soils and their distribution on the landscape. Topics covered include: pedology, clay mineralogy, soil physics, soil chemistry, management of soils, soil biology, taxonomy, and soil geomorphology. Laboratory section and a field project are required. Not open to students who have taken GEOG 335.  
Prerequisite: GEOG 104 or GEOG 148 or EVRN 148 or consent of the instructor.

GEOG 536  Landscape Ecology.  (3)
Landscape ecology is the study of spatial variation in landscapes at a variety of scales. It includes the biophysical and societal causes and consequences of landscape heterogeneity, linking natural sciences with related human disciplines. Its core themes address the spatial pattern of landscapes; relationships between pattern and process in landscapes; relationships between human activity and landscape pattern, process and change; and the effect of disturbances on the landscape.  
Prerequisite: GEOG 104 or GEOG 148 or EVRN 148 or consent of instructor.

GEOG 537  Elements of Plant Geography.  (3)
An introduction to spatial and temporal variation in natural plant populations and communities. Included is an introduction to methods of analysis and an overview of structure and process in the earth's major biomes.  
Prerequisite: GEOG 331, or an introductory biology/botany course and GEOG 104; or consent of instructor.

GEOG 538  Environmental Soil Physics and Chemistry.  (4)
This course examines the physical and chemical properties of soils and methods of evaluation. Physical topics include the movement of water, heat, gases, and solutes through soil. Chemistry topics include solid and solution speciation, mineral solubility, ion exchange, and oxidation-reduction reactions in soils.  
Prerequisites: GEOG 335 or 535, CHEM 188 or 189, MATH 121, PHSX 114, or consent of the instructor.

GEOG 541  Geomorphology.  (4)
Same as GEOL 541
A critical study of landforms in relation to tectonics, climatic environment, and geologic processes. The use of geomorphic methods in the interpretation of Cenozoic history is
emphasized. Laboratory exercises in analysis of field observations, maps, and photographs. Required field trip and fee. 

Prerequisite: GEOL 101 or GEOG 104 or 304.

GEOG 550 Environmental Issues in Africa. (3)
Same as AFS 551
Acquaints students with the complexities of debates on environmental problems in Sub-Saharan Africa. Topics addressed may include deforestation, desert expansion, wildlife conservation, soil erosion, climate change, coral reef destruction, water resources development, mangrove preservation, and the environmental effects of war, industrialization, and urbanization. Class presentations and projects synthesize the perspectives of both human and physical geography.

Prerequisite: GEOG 104 or permission of the instructor.

GEOG 551 Intermediate Economic Geography. (3)
A lecture course dealing with the principles of location theory, resource utilization and regional specialization of economic activities. Economic concepts, such as rent payment for agricultural and mineral resources, scale and agglomeration economies, etc., are applied to various physical, demographic and cultural settings of major world regions. Special emphasis is placed on the basic principles of and recent changes in patterns of world trade, international investment, and economic development. Prerequisite: GEOG 375 or introductory economics or consent of instructor.

GEOG 552 Topics in Urban/Economic Geography: ______ (Selected topic to be specified). (1-3)
An investigation of special topics in urban/economic geography. May include specific coursework under the headings of energy, economic development, international trade, environmental perception, housing, transportation, and migration. May be repeated if topic differs.

GEOG 553 Geography of African Development. (3)
Same as AFS 553
Acquaints students with the values and social parameters of African agricultural and pastoral practice. Topics include customary land rights, African perspectives on the natural world, gender issues in African agriculture, and the urbanization of African cultures. The course also contrasts African views with those of Western development practitioners and donor agencies. Case studies from different countries are used to highlight the continent's regional differences.

GEOG 556 Geography of the Energy Crisis. (3)
A discussion and analysis of the basic facts and causes of energy problems on a national and world scale. Examines current production, consumption, efficiency, reserves, conservation and other energy policy options, including adjustments that will affect consumer use, national politics and strategic issues.

Prerequisites: GEOG 102 or 375.

GEOG 557 Cities and Development. (3)
Same as AAAS 557
An intermediate level course in urban geography, with an emphasis on cities in the developing world. Example cities in Latin America and the Caribbean, Sub-Saharan Africa, the Middle East, South Asia, and/or Southeast Asia may be examined. The main focus is on the intersection between urbanization and economic development, but social, political, and cultural aspects of development in cities are considered. Other topics include the geographical impacts of European colonialism, urbanization and industrialization, rural-to-urban migration, urban structure and spatial dynamics, urban planning and environmental sustainability.

GEOG 558 Intermediate Geographical Information Systems (4)
An intermediate level course in geographic information science designed for advanced undergraduate and graduate level students who already have an introductory understanding of GIS. Emphasis will be placed on the application of spatial analytical techniques to geographical problem-solving. Topics include spatial data structures, interpolation techniques, terrain analysis, cost surfaces and database management techniques. Students will apply knowledge gained in lecture and reading to natural resource, urban, and scientific applications using state-of-the-art GIS software.

Prerequisite: GEOG 358 or consent of instructor.

GEOG 560 GIS Application Programming. (3)
This course teaches programming within Geographic Information Systems. Students will learn how to customize GIS applications to automate data processing and spatial analysis through programming languages. GIS
programming concepts and methods will be introduced from the aspects of spatial data management and analysis covering both vector and raster data models.

Prerequisite: GEOG 558 and a course in programming languages.

GEOG 570  
**Geography of American Indians.**  (3)
A survey of the culture and history of selected indigenous peoples of the Americas. Emphasis is placed on the environmental setting, the settlement and subsistence patterns, and the impact of European colonization. Discussion includes present-day ethnic and resource issues.

GEOG 571  
**Topics in Cultural Geography: __________.**  (1-3)
An investigation of special topics in cultural geography. May include specific coursework under the headings of cultural theory and methodology, material culture, foodways, religion, and similar topics. May be repeated if topic differs.

GEOG 572  
**Political Geography.**  (3)
Acquaints students with the theories and methods of political geography. Topics include geographical studies of: states, nations, and nationalism; territories and territoriality; geopolitics; and elections. Case studies from various regions of the world to be included, with an emphasis on the developing world.

Prerequisite: GEOG 102 or consent of instructor.

GEOG 573  
**Advanced Geographic Analysis.**  (3)
A course designed to teach students how to define, gather, process, evaluate and present geographic research. Its emphasis is field work and original data gathering versus library research.

Prerequisite: previous coursework in geography and/or consent of the instructor.

GEOG 575  
**Geography of Population.**  (3)
Describes and analyzes the distribution of human populations and spatial relations among and within varying types of settlements.

Prerequisite: GEOG 102 or 375.

GEOG 576  
**Cultural Geography of the United States.**  (3)
Same as AMS 576
Distributions of major culture elements including folk architecture, religion, dialect, foodways, and political behavior are systematically studied from a predominately historical perspective. These discussions are followed by a survey of the major culture regions in America.

Prerequisites: Although not absolutely necessary, familiarity with concepts treated in any of the following courses would be helpful: AMS 100, 110, ANTH 108, 308, GEOG 102, 390.

GEOG 579  
**Geography of American Foodways.**  (3)
Same as AMS 579
An interdisciplinary approach to food that explores the diversity of eating habits across the United States and the role of food as an indicator of cultural identity and change. Current regional and ethnic food consumption patterns are stressed. Topics include multi-culturalism and regional identity, the symbiotic relationship between restaurant food and home cooking, the recent interest in farmers’ markets and organic foods, and the importance of the food industry and the popular press in setting trends.

GEOG 591  
**Geography of Latin America.**  (3)
A study of the different physical, economic, and cultural settings in Latin America which form the basis for the various forms of livelihood.

GEOG 592  
**Middle American Geography.**  (3)
This regional study of the natural environments and cultural-historical backgrounds of Mexico, Central America, and the Caribbean details the physical and historical processes that have shaped the cultural landscape.

GEOG 593  
**Central American Peoples and Lands.**  (3)
This is a study of the natural and cultural history of the region’s lands and peoples that focuses on the cultural geography of the surviving indigenous populations, including their culture area, culture history, cultural landscape, and cultural ecology.

GEOG 594  
**Geography of the Former Soviet Union.**  (3)
An analysis of the spatial organization of the successor states to the USSR. A study of the diverse human and natural resources, demographic, cultural an economic conditions.

Prerequisite: An introductory geography course or background in Russian-East European history, social science, or culture or consent of instructor.

GEOG 595  
**Geography of Eastern Europe.**  (3)
A study of nations and regions of Eastern Europe, excluding Russia.  

Prerequisite: An

An introductory geography course or background in Slavic-East European history, social science, or culture or consent of the instructor.

GEOG 596 Geography of China. (3) A detailed description and analysis of geographic patterns in both historic and modern China. Prerequisite: An introductory geography course or background in Chinese history, social science, or culture or consent of the instructor.

GEOG 597 Geography of Brazil. (3) Study of geographic factors, physical and cultural, that are basic to understanding the historical development of Portuguese South America and the contemporary and cultural geography of Brazil. Course also includes a survey of Brazil’s South American neighbors.

GEOG 601 Indigenous Peoples of the World. (3) Same as GINS 601 A survey of the native peoples of the world at the time of contact with Europeans. Includes an overview of various Indigenous cultures. A few detailed studies of selected groups are used to explore environmental settings, settlements and subsistence patterns, and the world view of the Western Hemisphere’s Indigenous societies. Prerequisite: Permission of the instructor.

GEOG 657 Geographic Models. (3) Examination of several methodologies and specific techniques from geographical and operations research having proven applicability to public facility location decisions. The course emphasizes "hands-on" student experience with canned computer programs and real world problems. Prerequisite: An introductory course in urban planning or transportation geography or urban geography or consent of the instructor.

GEOG 658 Topics in Geographic Information Science: ________ (1-6) An investigation of special topics in geographic information science. May include specific coursework under the headings of methodology, basic research, thematic or regional applications, geographic information systems (GIS), Global Positioning System (GPS), and geostatistics. May be repeated if topic differs. Prerequisite: Vary by topic.

GEOG 670 Cultural Ecology. (3) Same as ANTH 695 Investigation of the interrelations between socio-cultural systems and the natural environment, including a survey of major theories and descriptive studies. Prerequisite: An introductory course in Geography or Anthropology.

GEOG 710 Information Design. (3) Concepts and principles for the organization of verbal, numerical and graphic/spatial data and their application to the production of information displays and instruments. Examination of the evolution of the information design process from the traditional (communication system) perspective to interactive user-centered design approaches. The nature of human information processing in handling information for both visualization and analysis, with particular emphasis on decision-making and usability. Prerequisites: GEOG 510, INDD 510, PSYC 318, PSYC 685 or equivalent, or consent of the instructor.

GEOG 711 Advanced Cartography: ________ (3) An investigation of special topics in cartography. Can be repeated for different topics. Prerequisite: Consent of the instructor.

GEOG 713 Practicum in Cartography. (1-6) Experience in the organization and presentation of cartographic material in lecture, discussion and laboratory formats. May be repeated to a total of six credits. Prerequisite: Consent of the instructor.

GEOG 714 Field Experience. (3) Working in a new environment presents problems unlike those encountered in a classroom situation. Data collection techniques and exercises discussed in this off-campus course are intended to provide experience in dealing with an unfamiliar situation. Course location is dictated by the interests and composition of the student group; offered in the first three weeks of August. Geography majors are encouraged to attend. This course is required for graduate students. Fee required. Prerequisites: Junior-Senior standing and 15 hours of geography or instructor's consent.

Characteristics of Geog 714 (Field Experience) The basic characteristics of Geog 714 are listed below.
1. Approximately three weeks of fieldwork in an environment unfamiliar to the student.
2. Extensive on-site instruction from at least two professors.
3. A course content that includes both human and physical geography along with geography techniques (e.g., interviews and GPS), and that addresses the means to attack and solve geographical problems.
4. Stress a team approach to problem solving. Any student who wishes to propose alternate work (or document previous experience) as a substitute for 714 should petition the Graduate Studies Committee (GSC) and provide a detailed plan for that work. The GSC must approve this plan before the work can be substituted for Geog 714. Upon completion of the work, students must prepare a 10-page report summarizing the content of the substituted activities for approval by GSC.

One alternative to 714 is to take a similar course at another college or university. Any questions about the Field Experience class should be directed to the department’s director of graduate studies.

GEOG 716 Advanced Geostatistics. (3)
An introduction to the practical application of advanced geo-spatial statistical techniques. Potential topics include: spatial regression, interpolation, clustering and advanced non-parametric statistics. Knowledge of a statistical package and GIS is assumed. Prerequisite: GEOG 516 or equivalent and GEOG 358 or equivalent.

GEOG 719 Development of Geographic Thought. (2-3)
Critical analysis of the growth of geographic thought from antiquity to the present: Emphasis is on the structure of modern geography. Prerequisite: 20 hours of geography, or consent of the instructor.

GEOG 726 Remote Sensing of Environment II. (4)
An overview of techniques for computer analysis of digital data from earth orbiting satellites for environmental applications. Topics covered include: data formats, image enhancements and analysis, classification, thematic mapping, and environmental change detection. The laboratory exercises provide hands-on experience in computer digital image processing in the department’s NASA Earth Science Remote Sensing Laboratory. Prerequisite: Introductory statistics and GEOG 526 or equivalent.

GEOG 731 Topics in Physical Geography: ______. (1-3)
An investigation of special topics in physical geography. May include specific coursework under the headings of geomorphology, climatology, soils, vegetation, quaternary, paleoenvironments, hydrology, etc. May be repeated if topic differs.

GEOG 733 Advanced Biogeography Field and Laboratory Techniques. (3)
This course provides graduate students with practical experience in field data collection techniques and laboratory data analysis methods. During the first half of the semester, students will work in the field using a variety of methods to measure such vegetation, characteristics as: cover, density, biomass, leaf area, and canopy architecture. Students will gain experience in the use of field instruments including a spectroradiometer, and techniques for quantifying vegetation biophysical attributes. The laboratory analyses component will include: data summary, data entry, correlation, regression, MANOVA, cluster analysis, and data display and reporting. Prerequisites: GEOG 516 or multivariate statistics equivalent recommended.

GEOG 735 Soil Geomorphology. (3)
Examines the interaction of pedogenic and geomorphic processes during the Quaternary with an emphasis on strategies and methodologies employed in soil-geomorphic studies. Group research projects incorporating field data collection and analyses are required. Prerequisite: GEOG 335 or 535 or consent of the instructor.

GEOG 741 Advanced Geomorphology. (1-3)
Same as GEOL 741
Detailed discussions of processes and landforms characteristic of specific environments. Considered during separate semesters will be general methodology, and fluvial, arid regions, glacial, and shoreline geomorphology. Course may be taken more than once. Prerequisite: GEOG 541.

GEOG 749 Topics in Stable Isotopes in the Natural Sciences (2-3)
Same as BIOL 749
Isotopic compositions of substances provide powerful insights into many topics in the natural sciences. Applications of isotopic analyses of
carbon, hydrogen, oxygen, and nitrogen to selected research topics such as plant resource use, food web analysis, paleoecology, paleodiet reconstruction, hydrology, and soils genesis will be examined.

Prerequisite: Knowledge of isotope chemistry is not required. (Concepts necessary to understand pertinent articles will be taught during the first class meetings.) May be repeated.

GEOG 751 Analysis of Regional Development. (3)
An analytical approach to spatial organization of economic activities and aspects of growth and development. An emphasis is given to location theory and the geography of trade and migration. A research paper is required.
Prerequisite: GEOG 551, or a course in economics, or consent of the instructor.

GEOG 752 Topics in Urban/Economic Geography: ________ (Selected topic to be specified). (1-3)
An investigation of special topics in urban/economic geography. May include specific coursework under the headings of energy, economic development, international trade, environmental perception, housing, transportation, and migration. May be repeated if topic differs.

GEOG 756 Energy Problems and the Economic-Physical Environment. (2-3)
This course investigates the economic, social, political, and environmental conditions of energy production, transport and use: total energy consumption and mix, relations to the level and structure of the economy, substitutability of fuel and energy sources, resource endowment in an international setting.
Prerequisite: GEOG 551, or a course in economics, or consent of the instructor.

GEOG 758 Geographic Information Science. (4)
This course integrates topics in geographical information science (GISci) with spatial analytical techniques to solve spatial problems. Focuses on the most current research in GISci and its relevance to the environmental sciences, natural resource management, and spatial decision-making. Students are expected to apply the concepts and techniques learned in this class to their own research projects.
Prerequisites: GEOG 558 and GEOG 316, or consent of instructor.

GEOG 771 Topics in Cultural Geography: ________. (1-3)
An investigation of special topics in cultural geography. May include specific course methodology, material culture, foodways, religion, and similar topics. May be repeated if topic differs.

GEOG 772 Problems in Political Geography. (3)
Case studies of regional and national power settings with particular emphasis upon the geographical analysis of political developments in unstable areas of the world.
Prerequisites: GEOG 102 or GEOG 375.

GEOG 773 Humanistic Geography. (3)
A discussion and project-oriented course focused on ways of studying the character and meaning of places. Concepts examined include place image and image makers, landscapes as text, sense of place, vernacular regions, and alternate representations of space.
Prerequisite: Graduate standing or fifteen hours of geography or consent of instructor.

GEOG 775 Proseminar in Population Geography. (3)
Evaluation of problem formulation, data gathering, research methods and substantive knowledge in the geography of human populations. Concurrent auditing of GEOG 575 plus an additional meeting each week is required.
Prerequisites: GEOG 575 and 516, and SOC 514.

GEOG 790 North American Regions: ________ (Selected areas to be specified). (3)
A detailed description and analysis of selected regions of North America.
Prerequisite: An introductory geography course or background in United States or Canadian history, social science, or culture or consent of the instructor.

GEOG 791 Latin American Regions: _________. (3)
A description and analysis of the principal sources of geographic information pertaining to portions or all of Latin America.
Prerequisite: GEOG 591, or concurrent auditing of 591, or consent of the instructor.

GEOG 794 Regions of the former USSR. (3)
A description and analysis of geographic data pertaining to the successor states of the USSR.
Prerequisite: Fifteen hours of Geography courses or background in Russian, East European or Middle East studies, or consent of the instructor.

GEOG 795 European Regions: 
_______________________________. (3) 
Prerequisite: Fifteen hours in Geography, background in specified region, or consent of instructor.

GEOG 796 Asian Regions: 
_______________________________. (2-3) 
Prerequisite: Fifteen hours in Geography, background in Asia, or consent of instructor.

C. Graduate Only Courses

GEOG 801 Indigenous Peoples of the World. 
(3) 
Same as GINS 801 
A survey of the native peoples of the world at the time of contact with Europeans. An overview will be presented of various Indigenous cultures. A few detailed studies of selected groups will be used to explore environmental settings, settlements and subsistence patterns, and the world view of the Western Hemisphere’s Indigenous societies.

GEOG 802 Urban Geographic Information Systems. (3) 
Same as UBPL 802 
An advanced survey of GIS/LIS focusing on: (1) history; (2) the wide range of applications from Automated Mapping/Facilities Management (AM/FM) to topologically related GIS; (3) generic analytical functions in both raster and vector modalities; and (4) software employed, hardware platforms and institutional settings. A limited experience in the use of GIS is provided from exercises employing Arc/Info software. 
Prerequisite: Some experience with DOS based computing.

GEOG 805 Introduction to Graduate Study. 
(3) 
A course required of all M.A. candidates to introduce geography as a research discipline. The course focuses on writing and editing, library materials, and the history and philosophy of the discipline.

GEOG 806 Basic Seminar. (2) 
The second of two courses required of M.A. students designed to provide experience in the development of research proposals and exposure to methodologies in geography. This course deals with approaches to geographic problems, and involves individual examination of special topics which require preparation, presentation and critical evaluation of research proposals.

GEOG 818 Problems in Production Cartography. (1-3) 
Advanced instruction in the theory and practice of producing maps and other related graphics for classroom instruction and research projects. Emphasis will be on current photomechanical and automated techniques. 
Prerequisite: consent of instructor.

GEOG 835 Practicum in Soil Mapping and Soil Erosion. (3) 
This course is designed to give graduate students field experience in soil mapping and in the evaluation of soils for loss through processes of erosion. 
Prerequisite: EOG 535 or equivalent, or consent of instructor.

GEOG 858 Environmental Geographic Information Systems. (4) 
An introduction to the use of GIS for environmental inventory, monitoring and modeling. This course integrates the principles of landscape ecology with the analytical tools of GIS, remote sensing and spatial analysis. Students will be taught GIS methodologies used to address real world problems and the use of GIS spatial analysis techniques to characterize landscapes and monitor their change. 
Prerequisite: GEOG 316 and GEOG 558 or equivalents, multivariate analysis recommended.

GEOG 890 Geographic Internship. (1-6) 
Supervised professional experience. The student submits to the program committee a proposal describing the internship prior to enrollment. Upon acceptance, regularly scheduled meetings with the advisor provide assistance, guidance and evaluation of progress in the professional experience. A written summary of the experience or outcomes of the research project are prepared independently by the student, a representative of the host agency, and the advisor. Total credit not to exceed six hours. Prerequisite: 12 hours of graduate level geography courses and consent of program committee.

GEOG 898 Readings in Geography. (1-4) 

GEOG 899 Master’s Thesis. (1-10)
M.S. in Atmospheric Science

The purpose of the program is to expand the student’s knowledge of fundamental atmospheric processes and how the atmosphere interacts with other parts of the environment. Students become familiar with quantitative research methods and how these various approaches can be used to address different problems in atmospheric science. Students gain an in depth ability to learn specific skills and apply them toward his/her thesis work. These skills consist of, for example, statistical analysis techniques, numerical modeling, or work with atmospheric instrumentation. The breadth of the program and the diverse research topics explored by the faculty are able to accommodate students with a variety of interests.

M.S. program requirements

1. Coursework
   The program requires only a few specific courses and allows a wide variety of courses to count toward meeting the degree requirements.

   Required credit hours:
   30 credits 500 level or above.

   Required Courses:
   ATMO 710 Atmospheric Dynamics
   ATMO 720 Atmospheric Modeling
   GEOG 716 Advanced Geostatistics

   Electives:
   3 additional credits of atmospheric science courses 700 level or above
   6 credit hours of courses 500 level or above outside of the Geography department

   Course Credit Limitations:
   A maximum of 6 credits of 500 and 600 level Atmospheric Science courses may be included in the program (excluding ATMO 505)

   A maximum of 6 credit hours of ATMO 899.

2. Thesis
   A master's thesis is a demonstration of a student's ability to formulate an atmospheric science research problem, collect and analyze relevant data, synthesize appropriate literature, arrive at logical conclusions, and present the entire exercise in a public academic forum. The thesis should address an original problem of scientific importance, though at the M.S. level, the research will to a significant degree be guided by the faculty advisor.
Thesis proposal
During the second semester in the program, the student must submit to his committee a thesis research plan. All M.S thesis proposals are expected to contain three basic elements:

1. A statement of the research problem or questions to be investigated.
2. A survey of relevant literature and how it relates to the student’s research problem
3. An outline of the general methodology, if not specific techniques, to be utilized in addressing the research problem or answering the basic research questions.

Thesis seminar and defense
Students are required to make a formal presentation to the faculty and fellow students in the form of a research seminar, and subsequently defend orally to their committee the results of their thesis research. Ideally, the final examination takes place immediately following the research seminar, but if necessary the two can be scheduled at separate times.

As part of their research training, graduate students are expected to attend departmental colloquia and seminars.

GENERAL PROCEDURES

Admission and Prior Work
Entering students are ideally expected to have completed an undergraduate degree in a physical science (e.g., physics, chemistry, atmospheric science, oceanography), mathematics, or engineering. Entering students will be expected to have studied mathematics, including vector calculus and ordinary differential equations. Applicants holding an undergraduate degree in another subject, yet having a sufficient mathematical background, will be considered for admission. Prospective students should also have taken the equivalent of at least 2 semesters of calculus-based physics and one of chemistry. A minimum Grade Point Average (GPA) of 3.0 on a 4.0 scale is required. Applicants with a GPA of less than 3.0 may be considered for admission on a probationary or provisional status. Graduate Record Examination scores (verbal, quantitative and analytical) are required of all applicants. If the student needs to take formal coursework to make up a deficiency, these credit hours will not count toward the M.S. A deficiency may be removed by 1) passing the specified course with at least a "C," 2) auditing the course and receiving a letter from the instructor indicating that the course requirements have been met, or 3) passing a written and/or oral examination comparable to the final exam. Deficiencies will be specified at matriculation and must be completed before the M.S. thesis defense is taken.

Program and Coursework
The program at the M.S. level continues the general training of the bachelor’s degree but also provides for the development of concentration in preparation for thesis research, employment, or advanced study. Upon a student’s admission to the department, the Graduate Studies Committee will appoint an advisor. Early in the first semester (preferably in the first week of classes), the student should meet with this advisor to outline a tentative program of coursework for the
degree. Such programs should be solidified by the time of enrollment for the second semester and submitted to the GSC for approval. The student and advisor then continue to discuss and update programs each semester, bearing in mind that any substantive changes must be approved by the GSC. Program sheets are available in the department office and must be filed before the thesis defense can be scheduled. The student will have a thesis committee consisting of at least three faculty members. At least two of these faculty members must regularly teach in the atmospheric sciences program.

The Master's Thesis
Ideally, work on the M.S. thesis research should begin during the second full-time semester. During this second semester, the student should decide on the general area of thesis research and select a member of the faculty who is competent in that area and willing to supervise the thesis and serve as the student's general advisor. This faculty member may be different from the initial advisor. Two additional faculty members must also read and approve the thesis and sign it after a successful defense. One of these two readers may be from outside the program. All committee members must be approved by the GSC (Graduate Studies Committee) and recommended to the graduate school. Submission procedures for the thesis are discussed below.

Submission of Thesis for Committee Examination
The complete thesis draft should be submitted directly to the advisor, and the advisor’s approval must be received before the thesis draft is passed on to other committee members and the final oral examination is scheduled. Five weeks before the intended date of a student’s final oral examination, the student (with approval of the committee chair), will submit this complete draft of the thesis to all committee members. The advisor and committee members have a responsibility to provide timely evaluations. Within two weeks of this submission, committee members must indicate whether or not the thesis is defendable by signing a “Permission to Schedule Defense” form.

Other Procedures
All master's students who have completed required coursework for their degrees are required to be continuously enrolled until all requirements for the degree are completed. No enrollment is necessary for the summer term. The Graduate School has established a maximum time limit of seven years between initial graduate enrollment and completion of all degree requirements.

Submission of the Approved Thesis
When the thesis has been completed and successfully defended, both electronic and hardbound copies need to be prepared. Both should include an abstract of no more than 150 words. A hardbound copy with original signatures by the advisor and the other two committee members is required for the department. The KU Libraries recommend the following binders that can bind paper copies of your thesis and additionally offer print-from-electronic file services: 1) Heckman Bindery (http://www.thesisondemand.com/) or 2) Acme Bookbinding (http://www.acmebook.com/bindery/thesis). The student must turn in a receipt showing that arrangements have been made for such work prior to the deadline for graduation set by the Graduate School. It is also customary for the student to provide a bound copy for the advisor.
The thesis must be submitted to the Graduate School and UMI Dissertation Publishing electronically using Portable Document Format (PDF). Instructions for this process are available at the KU graduate school website. See also UMI’s website at http://dissertations.umi.com/ku/. In addition to this electronic submittal, a student must submit a paper copy of the title page and an “acceptance page” with original signatures to the CLAS Graduate Studies office in 108 Strong Hall. Formats for both of these are at the graduate studies website.

MISCELLANEOUS INFORMATION

Use of Departmental Resources
Only graduate students who hold teaching and research assistantships have access to photocopy and secretarial support. All graduate students have access to computers in the various laboratories so long as they follow posted guidelines. The department endeavors to provide desk space for every graduate student but people holding teaching assistantships and research assistantships have priority. All graduate students are provided with e-mail addresses.

Departmental Grievance Procedures
The Geography Department's grievance procedures are on file in the departmental office and are available upon request.

Student Rights and Responsibilities
All graduate students are responsible for informing themselves of requirements of the Graduate School as stated in the most recent issue of the Graduate School Catalog, both the general requirements and those specific to geography. Members of the faculty and the staff of the graduate school are ready to answer questions and offer counsel.

The university’s Code of Student Rights and Responsibilities describes protected rights and expectations for conduct. Included are rights to free speech, expression, assembly, pursuit of educational goals, privacy, and due process. It also outlines how student and campus organizations may operate, and describes nonacademic misconduct such as threats and violence against disrupting classes and events. The complete text of the Code of Student Rights and Responsibilities is available on-line at www.ku.edu/~vcstuaff/rights.html or at the offices of the Vice Provost for Student Success and the Dean of Students.
ATMOSPHERIC SCIENCE COURSES

ATMO 105  **Introductory Meteorology.** (5)
A lecture and laboratory course introducing students to the atmosphere, weather and climate phenomena, and their controlling physical processes. Topics covered include: the structure of the atmosphere, energy and energy budgets, climate and climate change, air pollution, clouds and precipitation, pressure and wind systems, severe weather, and weather forecasting.

ATMO 106  **Introductory Meteorology, Honors** (5)
Honors version of ATMO 105. A lecture and laboratory course introducing students to the atmosphere, weather and climate phenomena, and their controlling physical processes. Topics covered include: the structure of the atmosphere, energy and energy budgets, climate and climate change, air pollution, clouds and precipitation, pressure and wind systems, severe weather, and weather forecasting.

*Prerequisite:* membership in University Honors Program or by permission of instructor.

ATMO 220  **Unusual Weather.** (3)
An introductory lecture course which surveys the general principles and techniques of atmospheric science and illustrates their application through discussions of natural but unusual weather phenomena such as blizzards, hurricanes, tornados, and chinooks, of the effects of air pollution on weather, and of intentional human alteration of the atmosphere.

ATMO 310  **Aviation Meteorology.** (3)
This course will introduce students to meteorological events that affect aircraft operations. It will discuss aviation applications of meteorological observations including satellite and radar observations. Students will learn about graphical displays of meteorological information. Numerical forecasting models and how their output is applied for aviation will be considered. Forecasting of weather events of particular interest to aviation such as ceiling, visibility, icing and turbulence will be emphasized.

*Prerequisite:* ATMO 105 or AE 245 or equivalent.

ATMO 321  **Climate and Climate Change.** (3)
Same as GEOG 321
This course is designed to introduce students to the nature of the Earth’s physical climate. It will introduce the basic scientific concepts underlying our understanding of our climate system. Particular emphasis is placed on energy and water balances and their roles in evaluating climate change. The course also evaluates the impact of climate on living organisms and the human environment. Finally, past climates are discussed and potential future climate change and its impact on humans is evaluated.

*Prerequisite:* GEOG 104 or ATMO 105.

ATMO 499  **Honors Course in Atmospheric Science.** (2-3)
Open to students with nine hours of upper level credit in Atmospheric Science, an average of at
least 3.5 in all Atmospheric Science courses, and an overall average of at least 3.25. Includes the preparation of an honors paper and its defense before a committee of at least two regular faculty members.

ATMO 505  **Weather Forecasting.**  (3)
A first course in synoptic meteorology designed to introduce students to weather analysis and forecasting through the application of hydrodynamic and thermodynamic principles to operational analysis and forecasting. Topics include: analysis and interpretation of surface and upper-air observations and data from satellites, radars, and wind profilers; chart and sounding analysis; and three-dimensional, conceptual models of weather systems. The course includes student-led weather briefings and analysis exercises.
*Prerequisite:* ATMO 105; one other atmospheric science or computer science course; MATH 121.

ATMO 506  **Forecasting Models and Methods**  (3)
Introduction to basic numerical weather prediction methods. Computer programs are used to apply numerical methods to weather data and to evaluate dynamical processes on numerical grids. Meteorological graphics packages are used to analyze current weather data and numerical model output. Current operational numerical models and output products are discussed.
*Prerequisite:* ATMO 505, Math 122, and EECS 138 or EECS 168.

ATMO 515  **Energy and Water Balance**  (3)
A study of the distribution and circulation of water in the air-earth system as influenced by atmospheric processes and surface conditions. The solar and terrestrial radiation budget and the water balance at the earth’s surface will be applied to agricultural and urban energy and water problems.
*Prerequisite:* ATMO 105 or EECS 138.

ATMO 521  **Microclimatology.**  (3)
Same as GEOG 521
A study of climatic environments near the earth-atmosphere interface. The course considers rural climates in relationship to agriculture and urban climates as influenced by air pollution and other factors. Emphasis is on physical processes in the lower atmosphere, distribution of atmospheric variables, the surface energy budget and water balance.
*Prerequisite:* ATMO 105 and Math 106 or Math 121.

ATMO 525  **Air Pollution Meteorology**  (3)
A study of background levels and concentrated sources of atmospheric pollution together with considerations of pollution buildup in urban areas as related to particular weather conditions. Inadvertent weather modifications and effects of atmospheric pollution on particular weather events and general climate will be discussed.
*Prerequisite:* ATMO 105, MATH 121, and EECS138.

ATMO 531  **Topics in Atmospheric Science:**  (1-3)
An investigation of special topics in atmospheric science. May include topics in dynamic,
physical or synoptic meteorology or climatology as well as related topics in earth and physical sciences. May be repeated if topic differs.

ATMO 605  **Operational Forecasting** (2)
Students enhance their forecasting expertise by preparing forecasts for presentation to the public through a variety of media. Classroom activities include weekly map discussions and analysis of current weather situations. Forecasting topics such as forecast verification, aviation forecast products, severe weather, flash floods and watches and warnings are examined. Credit for ATMO 605, ATMO 606, and ATMO 607 is limited to a total of eight hours, six of which may be counted toward a degree in atmospheric science.
*Prerequisites:* ATMO 505.

ATMO 606  **Forecasting Practicum – Private Industry** (2)
Practical experience in private industry working with current and/or archived meteorological data. Possibilities include the preparation of forecasts for TV stations and meteorological consulting firms, and working with environmental consulting firms to assess air pollution hazards. May be repeated two times for credit. Credit for ATMO 605, 606, and 607 is limited to a total of eight hours, six of which may be counted toward a degree in Atmospheric Science.
*Prerequisite:* ATMO 605.

ATMO 607  **Forecasting Intern – National Weather Service** (2)
Practical experience working in a National Weather Service forecasting center in analyzing weather data and preparing weather forecasts. May be repeated two times for credit. Credit for ATMO 605, 606, and 607 is limited to a total of eight hours, six of which may be counted toward a degree in Atmospheric Science.
*Prerequisite:* ATMO 605.

ATMO 630  **Synoptic Meteorology** (3)
Interpretation, development, and analysis of synoptic charts.
*Prerequisite:* ATMO 505 and ATMO 640.

ATMO 634  **Physical Climatology** (3)
Atmospheric processes are described and discussed in relation to the climate of the earth’s surface. Such topics as the greenhouse effect, ozone depletion, and the effect of solar irradiance on climatic change will be included. The physical processes and relationships between various climatic features will be studied.
*Prerequisites:* ATMO 505 and DSCI 301 or MATH 526.

ATMO 640  **Dynamic Meteorology** (3)
This course introduces the student to the fundamentals of fluid dynamics necessary for understanding large scale atmospheric motions. Fundamental physical laws of conservation of mass, momentum and energy are examined and applied to atmospheric flows. Rotation in the atmosphere is examined quantitatively in terms of both circulation and vorticity.
*Prerequisite:* MATH 223, PHSX 212, Prerequisite or corequisite of ATMO 505.
ATMO 642  **Remote Sensing** (3)
This course is designed to prepare students to effectively use remotely sensed data in operational or research settings for further work in this field. Topics include radiation and radiation transfer applied to active and remote sensing; radiative properties of space, sun, earth and atmosphere; instrument design considerations and operational characteristics; inversion methods for temperature or concentration profiling; surface temperature measurement; cloud top height determination; rain rate and wind velocity measurement; severe weather detection; satellite photograph interpretation.  
*Prerequisite:* ATMO 680, MATH 581.

ATMO 650  **Advanced Synoptic Meteorology** (3)
Analysis and interpretation of synoptic weather charts including treatment of numerical weather forecasting.  
*Prerequisite:* ATMO 630 and ATMO 660.

ATMO 660  **Advanced Dynamic Meteorology** (3)
Advanced study of the atmosphere including treatment of the vorticity equation.  
*Prerequisite:* ATMO 630, ATMO 640, MATH 123, and PHSX 211.

ATMO 680  **Physical Meteorology** (3)
This course is designed to enhance the student's understanding of atmospheric processes through the study of these processes at molecular through micro scales. Topics include the properties and behavior of gases; transfer processes; phase change; solar and earth radiation; cloud drop, ice crystal and precipitation formation; atmospheric electricity; stratospheric chemistry.  
*Prerequisite:* MATH 223, PHSX 212.

ATMO 690  **Special Problems** (1-3)
This course provides the student with an opportunity for independent work in meteorology beyond the content of the regularly scheduled courses. Done under the guidance of a faculty member, the problem should be of mutual interest to the student and the faculty member; the nature of the work should be carefully discussed by both before enrollment.  
*Prerequisite:* Nine credit hours in meteorology.

ATMO 697  **Seminar for Seniors** (1)
Current research in atmospheric science will be discussed. May be repeated for a total of two credit hours.  
*Prerequisite:* Senior level in Atmospheric Science.

ATMO 699  **Undergraduate Problems** (2)  
*Prerequisite:* Twelve credit hours in meteorology.

ATMO 710  **Atmospheric Dynamics** (3)
Presentation of contemporary approaches to the study of atmospheric dynamics. May include methodologies that provide insight into global, synoptic, mesoscale or microscale motions.
Prerequisite: ATMO 660 or equivalent.

ATMO 720 Atmospheric Modeling (3)
Illustration and application of contemporary approaches to mathematical and statistical description of atmospheric phenomena.
Prerequisite: MATH 122, ATMO 640, ATMO 680, and a course in statistics, or consent of instructor.

ATMO 727 Atmospheric Storms (3)
The physical processes and operating principles involved in the development and life cycles of extreme or unusual weather events including tornadoes, blizzards, lightning displays, and tropical storms.
Prerequisite: EECS 138, MATH 121, and ATMO 320.

ATMO 731 Advanced Topics in Atmospheric Science: (1-3)
Advanced investigation of special topics in atmospheric science. May include topics in dynamic, physical or synoptic meteorology or climatology as well as related topics in earth and physical sciences. May be repeated if topic differs.

ATMO 750 Numerical Weather Prediction (3)
An exploration of the mathematical methods used to describe the current state of the atmosphere and to predict future states. Current operational numerical weather prediction techniques will be included.
Prerequisite: ATMO 660.

ATMO 825 Seminar in Climatology (2-3)

ATMO 827 Seminar in Atmospheric Science (1-3)

ATMO 899 Master’s Thesis (1-10)

April 2009
JOINT DEGREE PROGRAM
LEADING TO THE
MASTER OF URBAN PLANNING
AND
MASTER OF ARTS IN GEOGRAPHY
DEGREE

This publication is for informational purposes and does not constitute a contract.
GEOG 911 Seminar in Cartography: ________
(Selected topic to be specified). (1-4)
Study of selected topics in cartography. May be repeated if topic differs.
Prerequisite: GEOG 513 or consent of instructor.

GEOG 912 Seminar in Quantitative Methods.
(2-3)

GEOG 926 Seminar in Remote Sensing. (2-4)
Study of selected topics in remote sensing theory and application. May include independent or group research and/or development work. Topics will be specified in advance.
Prerequisite: GEOG 726 or consent of the instructor.

GEOG 935 Seminar in Soil Geography. (2-3)
Subject matter varies but focuses on modern concepts and trends in soil geography. Sample topics include classification, paleopedology, and soil genesis. Field trip may be required.
Prerequisite: GEOG 735 or consent of the instructor.

GEOG 937 Seminar in Vegetation Geography.
(1-3)
Same as BIOL 968.

GEOG 939 Seminar in Fluvial Systems. (2-3)
Study of selected topics in theory and method of fluvial systems. Samples include hydraulic geometry, the nature of alluvial sediments, and basin case studies. Topic will be specified in advance.

GEOG 957 Seminar in Urban and Economic Geography. (2-3)

GEOG 958 Seminar in Geographic Information Systems. (2-4)
Study of selected topics in analysis of digital geographic data. May include research and/or developmental work.
Prerequisite: GEOG 758 or equivalent, or consent of the instructor.

GEOG 970 Seminar in Cultural Geography.
(2-3)
Study of selected topics in the theory and method of cultural geography. Samples include religious patterns, folk architecture, and place-defining novels. Topic will be specified in advance.

GEOG 972 Seminar in Political Geography.
(2-3)
Study of selected topics in the theory and method of political geography. Samples include insurgent states, electoral patterns, and political ecology. Topic will be specified in advance.
Prerequisite: GEOG 772 or consent of instructor.

GEOG 975 Seminar in Population Geography.
(2-3)
Study of selected geographic topics and problems dealing with the distribution of human populations.
Prerequisite: GEOG 775 or consent of instructor.

GEOG 980 Seminar in Geography: ________
(1-3)

GEOG 990 Seminar in Regional Geography:
_______ (Selected areas to be specified). (1-3)

GEOG 998 Research in Geography. (1-5)

GEOG 999 Doctoral Dissertation. (1-10)

Revised May 2009
JOINT DEGREE PROGRAM LEADING TO THE MASTER OF URBAN PLANNING AND MASTER OF ARTS IN GEOGRAPHY DEGREE

PROGRAM OBJECTIVES

Urban Planning and Geography have a long history of interaction and connection. Responsible planning in urban communities requires an understanding of the human and physical geographies of these communities, and contemporary planning practice demands familiarity with advanced geographic techniques and information systems. Conversely, expertise in geography – and particularly concentration in urban geography – may require an understanding of and competence to deal with the planning dynamics of urban communities.

The objective of this program is to meet the needs of both Urban Planning and Geography for interdisciplinary knowledge by offering a dual degree program for the graduate student who intends to engage professionally in both planning and geography. The program combines in three years the normal two year Master of Urban Planning (48 credit hours) and the normal two year Master of Arts (MA) degree in Geography (30 credit hours) offered by the College of Liberal Arts and Sciences.

ADMISSION REQUIREMENTS

To be admitted to the combined MUP/MA program, a student must meet the admission requirements for both degree programs and should submit a separate application to each program. It is preferable that a student be admitted to both programs prior to beginning their graduate work. If a student decides to enter the combined program after the completion of his or her second semester in either the Graduate Program in Urban Planning or the regular MA program in Geography, he or she should discuss those plans with both programs as soon as possible.

Both programs require the following application items:

1. A completed application form.
2. A statement of the applicant’s career goals and substantive interests in urban planning and/or geography and rationale for undertaking graduate study at the University of Kansas.
3. Two copies of official transcripts from all colleges or universities attended.
4. Three reference forms or letters of recommendation from persons qualified to comment on the applicant’s academic abilities and probable success in graduate study.
5. Scores from the Graduate Record Examination (see further information below).
6. TOEFL scores, if the student’s native language is not English.
7. Payment of the current application fee (check or money order payable to the University of Kansas).
8. Financial statement for international students (In 2004, it is necessary to have a minimum of US$20,677 per school year to cover the cost of your studies).
Application forms may be submitted to the Graduate School online or by downloading a paper copy at www.graduate.ku.edu. Applicants should forward their application form and the application fees (Urban Planning and Geography each require a separate fee) to: The University of Kansas Graduate School, Graduate Applications, 1450 Jayhawk Blvd., Room 300, Lawrence, KS 66045-7535. All other materials should be sent directly to the individual programs, as described below.

**Urban Planning Applications:**

Persons whose previous records indicate ability to succeed with advanced work may be admitted to the Graduate School through the Graduate Program in Urban Planning. Ordinarily, admission requires a bachelor’s degree and a grade-point average of approximately B (3.0 on a 4 point scale) from the University of Kansas or another institution with substantially equivalent requirements for the bachelor’s degree. Admissions decisions are based on the information supplied in the application materials. The GRE is not required, but is recommended for students with a GPA below 3.0, and/or low (below C) grades in courses with economic and mathematical content. Admissions materials should be submitted to:

Dr. James M. Mayo, Chair  
Graduate Program in Urban Planning  
School of Architecture and Urban Design  
The University of Kansas  
1465 Jayhawk Blvd., Room 317  
Lawrence, KS 66045

**Geography Applications:**

Admission to the Geography graduate program is based primarily on the applicant’s undergraduate and/or graduate record, references from persons familiar with the applicant’s work, GRE scores (required), and a statement of academic objectives prepared by the applicant. Applicants without prior training in geography are welcome but are required to improve their basic knowledge of the several broad divisions within geography: systematic, methodological, and regional. Courses taken to remedy such deficiencies may not count toward graduate degrees. Admissions materials should be submitted to:

Geography Department,  
1475 Jayhawk Blvd., Room 213,  
University of Kansas,  
Lawrence, KS 66045-7613.

Information concerning application deadlines, course requirements and descriptions, faculty, and so on is available on the Urban Planning and Geography web sites. The Urban Planning Chairperson and the Geography Director of Graduate Studies are also available to provide further assistance to applicants.
DEGREE REQUIREMENTS

A.   Total Combined Program

<table>
<thead>
<tr>
<th>Required Courses for Combined Degree</th>
<th>For MUP</th>
<th>For MA in Geography</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>21 cr</td>
<td>7 cr</td>
<td>28 cr</td>
</tr>
</tbody>
</table>

Concentration, Elective & Thesis Courses For Combined Program

|                                      | 18 cr   | 15 cr               | 33 cr |
|                                      |         |                     |       |

TOTAL

|                                      | 39 cr   | 22 cr               | 61 cr |
|                                      |         |                     |       |

B.   Urban Planning Courses Required of all Joint Degree Candidates

Required Courses:

- UBPL 705 – Economic Analysis for Planners       3 credits
- UBPL 736 – Planning Institutions                3 credits
- UBPL 741 – Quantitative Methods I               3 credits
- UBPL 742 – Quantitative Methods II              3 credits
- UBPL 763 – Professional Practice                3 credits
- UBPL 815 – History and Theory of the Planning Process 3 credits
- UBPL 850 – Urban and Regional Theory            3 credits

21 credits

Concentration Courses in Urban Planning:

12 credits

Elective Courses in Urban Planning:

6 credits

TOTAL URBAN PLANNING COURSE WORK:

39 credits

C.   Geography Courses Required of All Combined Degree Candidates

Required Courses:

- GEOG 714 – Field Experience                     3 credits
- GEOG 805 – Introduction                          2 credits
- GEOG 806 – Basic Seminar                         2 credits

At least one Techniques course (3 credit hours required) 3 credits
At least one Human Geography course (3 credit hours required) 3 credits
At least one Physical Geography course (3 credit hours required) 3 credits

Thesis Hours:

- GEOG 899 – Masters Thesis                        6 credits

The Chair of the Masters thesis committee must come from the Department of Geography. At least one thesis committee member must come from the Urban Planning program.

TOTAL GEOGRAPHY COURSE WORK

22 credits
Students will choose Techniques courses from among the following:
- GEOG 513 – Cartographic Design
- GEOG 517 – Data Handling and Map Symbolization
- GEOG 558 – Intermediate GIS
- GEOG 710 – Information Design
- GEOG 716 – Advanced Geostatistics
- GEOG 726 – Remote Sensing of Environment II
- GEOG 758 – Geographic Information Science
- GEOG 802 – Urban GIS
- GEOG 858 – Environmental GIS
- GEOG 911 – Seminar in Cartography
- GEOG 912 – Seminar in Quantitative Methods
- GEOG 926 – Seminar in Remote Sensing

Other Geography courses at the 500-level or above may be used to fulfill requirements in this category on the basis of petition.

Students will choose Human Geography courses from among the following:
- GEOG 515 – Behavioral Systems
- GEOG 557 – Cities and Development
- GEOG 575 – Geography of Population
- GEOG 719 – Development of Geographic Thought
- GEOG 751 – Analysis of Regional Development
- GEOG 752 – Topics in Urban/Economic Geography
- GEOG 771 – Topics in Cultural Geography
- GEOG 772 – Problems in Political Geography
- GEOG 773 – Humanistic Geography
- GEOG 775 – Proseminar in Population Geography
- GEOG 790 – North American Regions
- GEOG 791 – Latin American Regions
- GEOG 794 – Regions of the Former USSR
- GEOG 795 – European Regions
- GEOG 796 – Asian Regions
- GEOG 957 – Seminar in Urban/Economic Geography
- GEOG 970 – Seminar in Cultural Geography
- GEOG 972 – Seminar in Political Geography
- GEOG 975 – Seminar in Population Geography

Other Geography courses at the 500-level or above may be used to fulfill requirements in this category on the basis of petition.

Students will choose Physical Geography courses from among the following:
- ATMO 525 – Air Pollution
- GEOG 521 – Microclimatology
- GEOG 531 – Topics in Physical Geography
GEOG 532 - Geoarcheology
GEOG 535 - Introduction to Soil Geography
GEOG 541 - Geomorphology
GEOG 731 – Topics in Physical Geography
GEOG 733 – Advanced Biogeography Field and Laboratory Techniques
GEOG 735 – Soil Genesis, Classification, and Distribution
GEOG 741 – Advanced Geomorphology
GEOG 756 – Energy Problems and the Economic-Physical Environment
GEOG 935 – Seminar in Soil Geography
GEOG 937 – Seminar in Vegetation Geography
GEOG 939 – Seminar Fluvial Systems
Other Geography courses at the 500-level or above may be used to fulfill requirements in this category on the basis of petition.

SUMMARY

To sum up, at present the Master of Arts (MA) degree in Geography (30 credit hours) and Master of Urban Planning degree (48 credit hours) require 78 credit hours to complete. Typically, this takes four years. The joint degree program reduces 17 credit hours from this existing arrangement and allows a student to complete both degrees in three years. Nine credit hours have been reduced from the Urban Planning degree and eight from the geography degree under this proposal, a comparable reduction on each side. Both programs have supported this proposal unanimously as one that does not dilute the quality of either degree. It should also be noted that Urban Planning accreditation requirements (as established by the Planning Accreditation Board) dictate a minimum of 39 hours of Urban Planning coursework for master’s students. In other words, the Urban Planning Program must maintain at least 39 hours in any joint degree in order to maintain its status as an accredited professional program.

USE OF UNIVERSITY RESOURCES

The proposed joint degree makes use only of facilities, courses, and staff of the Department of Geography and the Graduate Program in Urban Planning that would already be in place for the existing separate degree programs. No new university resources are required to implement the new joint degree.
Department of Geography
University of Kansas

Self Study for 2010 Program Review

APPENDIX F

Sample Assessment Forms
GEOGRAPHY UNDERGRADUATE ASSESSMENT
Department of Geography, University of Kansas
April, 2009

Name: ______________________________

KU Degree and year: _________________

Highest post-graduate education (degree received, where and year):

_________________________________________________________________________________

Email address: ______________________________

Current Occupation and Employer:

_________________________________________________________________________________

How long you been in this position?_____

Concise Job Description:

Emphasis while in the Department: Please circle the emphasis.

Physical  Cultural  Regional  Cartography  GIS  Remote Sensing

Other: ____________________________

Was coursework in Geography helpful in your current or previous positions?  NO  YES

1  2  3  4  5

How or how not?

Were your advisor and mentors helpful? NO  YES

1  2  3  4  5

How or how not?

(over)
Would you advise others to come to KU Geography for their education?  NO  YES

Why or why not?

Which geography courses did you feel provided the best learning experience?

Which geography courses did you feel were least useful?

Is there anything else that you would like to comment on (either positive or negative)?

Please return your response by May 15, 2009 to Bev Morey (bmorey@ku.edu). Alternatively, you can send your response to Bev Morey, Department of Geography, 1475 Jayhawk Blvd., Room 213, University of Kansas, Lawrence, KS  66045-7613. Thanks for your help!
Name: ______________________________

KU Degree and year: ____________________

Highest post-graduate education (degree received, where and year):

_________________________________________________________________________________

Email address: ______________________________

Current Occupation and Employer:

__________________________________________________________________________________

How long you been in this position? _____

Concise Job Description:

Emphasis of your degree: (Please circle the emphasis.)

General Meteorology  General Meteorology with Minor in Math  Air Pollution
Hydrometeorology  News Media Forecasting

Other: ______________________

Was coursework in Atmospheric Science helpful in your current or previous positions?  NO  YES
1 2 3 4 5

How or how not?

Were your advisor and mentors helpful?  NO  YES
1 2 3 4 5

How or how not?
Would you advise others to come to KU Atmospheric Science for their education?  

NO  YES

Why or why not?

Which atmospheric science courses did you feel provided the best learning experience?

Which atmospheric science courses did you feel were least useful?

Is there anything else that you would like to comment on (either positive or negative)?

Please return your response by May 15, 2009 to Bev Morey (bmorey@ku.edu). Alternatively, you can send your response to Bev Morey, Department of Geography, 1475 Jayhawk Blvd., Room 213, University of Kansas, Lawrence, KS  66045-7613. Thanks for your help!
This survey has two parts. The first page will be detached and kept in your permanent file in case we need to contact you in the future. The other pages will be processed separately and your identity will be concealed. Please return the survey to the Department of Geography (room 213 Lindley Hall) before May 11, 2007. Thank you for your participation.

Name _______________________________ Student ID ___________

When did/will you receive your degree? ____________

Address where you can be reached in the future:

    Post-graduate address (if known):

    Home address:

What will you be doing next year?

Which degree are you receiving?

    BA    BGS    BS (ATMO)    BS(physical)    BS (analytic)

Which of the following had the greatest influence on your choice of a major? (You may circle more than one).

    a. Interest in subject matter
    b. Career opportunities
    c. Influenced by a professor
    d. Influenced by another student
    e. Other (please specify) ________________________________
Please respond to the following questions regarding the Geography Department on a scale of 1 to 5 where 1 means that you strongly agree with the statement and 5 means that you strongly disagree. We encourage you to provide comments if you wish to explain your rating.

<table>
<thead>
<tr>
<th></th>
<th>Agree</th>
<th>Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. The degree requirements were reasonable.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>2. I felt there was concern for me as an individual.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>3. There were ample opportunities to interact with my instructors outside of the classroom.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>4. The curriculum for the degree was well conceived.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>5. I had no trouble getting the courses I needed.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>6. The overall quality of instruction was good.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>7. Adequate computer facilities were available to undergraduates.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>8. The department helped me become aware of my professional options.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>9. Geography’s undergraduate program compares favorably with other undergraduate programs at KU with which I am familiar.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
</tbody>
</table>

Please respond to the following questions:

1. From your perspective, what are the strengths and weaknesses of the Geography program at KU?

2. Which courses and instructors impressed you the most?

3. Which courses did you think were the least worthwhile?
4. Are there any technical skills you learned that you thought were particularly valuable?

5. Are there any skills you wish you could have learned but did not have the opportunity?

6. Do you have any specific recommendations for improvements to the program overall?

7. What do you think of the student advising and mentoring process?

8. Contributions from our alumni are crucial to the Department’s mission of supporting students (e.g., for attending conferences and field camps, and for conducting research). The Department would love to have a $10 or more contribution each year from you to help support future students. Would you be willing to contribute $10 a year to help the Department support students like you?

9. Do you have any other observations?

Thank you for completing this survey!
MA GRADUATE ASSESSMENT
Department of Geography, University of Kansas
April, 2009

Name ________________________________           Date of your degree _________

Current position or activity
______________________________________________________________

Previous positions or activities
______________________________________________________________

Degree emphasis (Physical, ATMO, Cultural, Regional, Remote Sensing, GIS, Cartography, other (specify)):
______________________________________________________________

Which geography courses did you like the most?

Which geography courses did you like the least?

Which geography courses did you feel provided the best learning experience?

Which geography courses did you feel were least useful?

Did you receive adequate advising?

(Over)
Which suggestions would you make if you could redesign our MA degree requirements?

Overall, how would you rate your experience in our Master’s program?  

<p>| | | | | | |</p>
<table>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td></td>
</tr>
</tbody>
</table>

Is there anything else that you would like to comment on (either positive or negative)?

Please return your response by May 15, 2009 to Bev Morey (bmorey@ku.edu). Alternatively, you can send your response to Bev Morey, Department of Geography, 1475 Jayhawk Blvd., Room 213, University of Kansas, Lawrence, KS 66045-7613. Thanks for your help!
Department of Geography  
University of Kansas  

Self Study for 2010 Program Review  

APPENDIX G  

Undergraduate Programs in Geography
Welcome to the Geography Department

Undergraduate Guide

Information on the Department, and majors in Geography and Atmospheric Science

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- Honors .................................................................................. Page 5
- Minor degrees offered ......................................................... Page 5
- Geography course classification ........................................... Page 12
- Degree requirements and worksheets
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  - Bachelor of General Studies .............................................. Page 14
  - Bachelor of Science: Physical Geography option ................. Page 15
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Atmospheric Science Information

- Undergraduate degree .......................................................... Page 4
- Honors .................................................................................. Page 5
- Minor degree offered .......................................................... Page 5
- Degree requirements and worksheets
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  - Bachelor of Science General Meteorology option with Minor in Mathematics Page 18
  - Bachelor of Science: Air Pollution option ......................... Page 19
  - Bachelor of Science: Hydrometeorology option ................ Page 20
  - Bachelor of Science: News Media Forecasting option .......... Page 21

Contact Information

Department of Geography
1475 Jayhawk Blvd.
213 Lindley Hall
University of Kansas
Lawrence, KS 66045

Telephone: (785) 864 5143
Fax: (785) 864 5378
Email: geog@ku.edu
Web: www.geog.ku.edu

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Career Opportunities

Atmospheric Science
Pages 7 and 8
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Pages 7 and 9

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Pages 10-11

Course list

Pages 22-29
Welcome to the Geography Department at the University of Kansas. This handbook is intended to provide undergraduates general information about Geography, Atmospheric Science, the Geography Department at the University of Kansas, and the four undergraduate degrees offered by the Department. It also includes worksheets to assist you in scheduling the course requirements for your degree.

Geography and weather are some of humankind's oldest curiosities and long established branches of modern science. The scientific discipline of Geography strives to explore and to understand the variety that exists in the world's landscapes and cultures. The study has several interlocking approaches, including area or regional studies, analysis of the interconnecting elements and processes of the natural environment (e.g. climate, landforms, plant communities, soils), interaction between people and the environment, and the study of historical, cultural, economic, and other factors that underlie the spatial organization of human beings and their activities on the planet. A central theme to geographic studies includes the study of spatial analytic techniques. This includes studies related to map making and cartography, remote sensing of the environment, methods for displaying and analyzing spatial data and the use of Geographic Information Systems to perform these techniques.

Atmospheric Science (including meteorology) has always had a close relationship with Geography. Both disciplines share an interest in maps and spatial analytical techniques. In more recent times, both Geography and Atmospheric Science have used remote sensing techniques to provide us with information on our environment. Geography and Atmospheric Science share the discipline of Climatology. Atmospheric Science strives to understand the physical processes taking place in the atmosphere. These processes have many consequences among which are weather and the distribution of air pollutants.

Instruction in geography and meteorology at KU began within the Geology Department when Professor C.J. Posey, the University's long-time weather observer, offered several courses in meteorology and regional geography. The current programs trace their foundation to 1946 when Walter Kollmorgen arrived with the charge to establish a department. The University's enrollment was growing rapidly during the post-war years, and students were eager to learn about different regions of the world. The department expanded to four staff members by 1950 and expanded to its present size in the early 1970's. Teaching and research interests of the staff have always been broad, but the department has come to national prominence especially for its work in cultural/regional studies, geographic information science and physical geography. The Department also emphasizes the integration of these sub-disciplines, especially when combined with the prominent regional studies programs at KU.

The baccalaureate degrees offered closely follow the research strengths of the Department. In addition, majors follow the overall educational goals of the University. As part of these goals, Geography and Atmospheric Science majors emphasize theoretical knowledge together with experimental field and laboratory work. Geography students learn to apply their knowledge through use of geographic information science in cartography, spatial analysis, and environmental analysis. Atmospheric Science students focus on analysis of atmospheric data with its applications to weather forecasting and air pollution and are introduced to some of the basics of computer modeling. In the last few decades, computer-based geographic information systems (GIS) and remote sensing techniques have come to play a major role in geographic analysis and computer based analysis and simulation has become standard in Atmospheric Science. As part of our curriculum, we have made great efforts to be able to offer students hands-on opportunities in these emerging areas of spatial analysis with well-equipped laboratory resources. Ideally, at graduation our students will have a much better understanding of the natural and human forces that create the landscape we live in. Furthermore, students should be equipped to know how we accumulate, display, analyze and interpret the data we collect to understand the relationships between the earth and its human inhabitants.
Undergraduate Majors in Geography and Atmospheric Science

The Department of Geography offers four undergraduate degrees. Since each degree offers a different educational experience, students should carefully consider which degree is most appropriate to meet their educational goals. In all of the degrees, students have to meet two general sets of requirements: the general education requirements set by the College of Liberal Arts and Sciences, and the specific requirements for the majors set by the Geography Department.

1. **The Bachelor of Arts in Geography (B.A.)** offers students a broad liberal arts education touching on all aspects of Geography. As part of this degree students need to meet a number of requirements set by the College of Liberal Arts and Sciences. Students are required to complete three courses in each of the Principal Course categories (humanities, social sciences, and natural sciences) as well as obtain proficiency in a foreign language. Geography requirements are the same as those for the Bachelor of General Studies degree, and require a minimum of 29-30 credit hours in Geography. Course work includes 14-15 hours of fundamentals courses and 15 additional hours selected from four topical groups: physical, human, geographic information science and regional.

2. **The Bachelor of General Studies in Geography (B.G.S.)** is unique to the University of Kansas. The intent of the degree is to allow for more specialization in the student’s main area of interest while still maintaining a liberal arts program. Compared to the B.A. degree, there are fewer principal course requirements: there are only two required courses in each of the humanities, social sciences, and natural sciences. Another difference is that this degree has no foreign language requirement. It does, however, require students to complete a concentration (3 upper division courses) or a minor in a second field of study (usually 18 credit hours). Geography core requirements are the same as those for the B.A. degree, and require a minimum of 29-30 credit hours in Geography. Course work includes 14-15 credit hours of fundamentals courses and 15 additional credit hours selected from the four topical groups: physical, human, geographic information science and regional.

3. **The Bachelor of Science in Geography (B.S.)** is a much more specialized degree, with fewer general education requirements and a much more concentrated specialization in one of two aspects of Geography. There are two B.S. degree options:
   
a. **Physical Geography Option.**  
   Students prepare for a career in environmental assessment and problem solving. Basic requirements include preparation in chemistry, biology, physics and mathematics. Advanced course work includes the study of the processes that affect the physical environment (soils, vegetation, climate and geomorphology), and techniques for performing statistical and computational analysis of these processes (statistics, GIS and remote sensing).

b. **Geographical Information and Analysis Option.**  
   Students prepare for a career in the area of geographic information science and problem solving using a variety of spatial analysis techniques. Basic requirements include preparation in mathematics, science and computer science. Advanced course work includes work in cartography, GIS, remote sensing, spatial statistics, spatial analysis and data presentation and visualization. In addition, students are expected to take some coursework in one of the other areas of geography (physical, human, and regional).

Beyond the basic requirements listed under each option, both Geography B.S. degrees have a common set of general education requirements, including courses in English, mathematics, communications, humanities, social sciences and a history or philosophy of science course. Some courses are shared by the two options; however, different course selection menus apply for the remaining requirements. Specific requirements are shown in the worksheets for each option.
4. **The Bachelor of Science in Atmospheric Science (B.S.)** is designed to meet the recommendations of the American Meteorological Society for a bachelor’s degree in meteorology/atmospheric science. There are four options, each of which meet these recommendations.

a. **General Option**
   This option is for students who want a broad background in atmospheric science. It is also the most suitable option for those who are aiming at a career in weather forecasting. It includes a third semester of synoptic meteorology as well as an air pollution course.

b. **Air Pollution Option**
   Students prepare for a career emphasizing environmental aspects of meteorology. This option includes an additional semester of chemistry as well as environmental studies.

c. **Hydrometeorology Option**
   Students prepare for a career involving the interface between meteorology and hydrology. These studies have important applications to flash floods, droughts and water supply. This option includes additional courses on fluid flow and hydrology from the School of Engineering.

d. **News Media Option**
   This option is for students who wish to enter careers whose main function is to provide information to the general public. It requires additional courses from the School of Journalism.

All four degrees prepare the student for advanced work at the graduate level, although students taking the B.A. and the B.G.S. degrees should note that most Geography graduate programs require a statistics course, *e.g.*, GEOG 316, and we highly recommend a basic course in GIS, *e.g.*, GEOG 358.

This guide uses worksheets to show the course requirements for each degree. It is highly recommended that students consult a faculty advisor when preparing their course of study. Members of the undergraduate committee are always available for advising and to help solve program and curriculum problems. We also recommend that, at the outset of their studies, students talk to a number of faculty members in the department about their interests. This will help in the selection of courses that best match individual interests. It will also help identify special courses or research opportunities that might enhance the overall educational experience at the University of Kansas. Finally, the University has special scholarships for undergraduate research programs, and we highly recommend you consider the Study Abroad Program for a semester or summer. You should consider this before your junior year.

During the final year in the program, students are required to do a graduation check. Final degree checks are done by the Undergraduate Services staff of the College of Liberal Arts and Sciences (109 Strong Hall). As part of this check, students will also need to meet with the Undergraduate Advisor in the Geography Department to check the Geography or Atmospheric Science major requirements. It is strongly recommended that students consult with a Geography advisor on a regular basis to make certain that, at each stage in their program, they are meeting all of the requirements for the degree. It is important to be certain that the major requirements and those of the College of Liberal Arts and Sciences are correct on the ARTS (Academic Requirements Tracking System) form.
Honors

Any of the degrees offered by the Geography Department can be completed with honors, although the BS degrees in Atmospheric Sciences have slightly different requirements compared to the degrees in Geography. To complete a degree with honors students must fulfill the following requirements.

Atmospheric Science
To be accepted as a candidate for honors, a major must have completed at least 9 hours of upper-division credit in Atmospheric Science with a grade-point average of 3.50 in all Atmospheric Science courses and an overall average of at least 3.25. In addition to outstanding work in Atmospheric Science classes, the program requires ATMO 499, an independent study course consisting of the creation of an honors paper. The student will present the results of this paper in an oral examination to a committee consisting of a minimum of two faculty, normally from the Geography Department, and chaired by the ATMO 499 supervisor. To graduate with honors, the student must complete the paper and the examinations and maintain the 3.50 and 3.25 grade point averages.

Geography
To be accepted as a candidate for honors, a major must have completed at least 9 hours of upper-division credit in geography with a grade-point average of 3.50 in all geography courses and an overall average of at least 3.25. In addition to outstanding work in geography classes, the program requires GEOG 499, an independent study course consisting of the creation of an honors paper. The student will present the results of this paper in an oral examination to a committee consisting of a minimum of two faculty, normally from the Geography Department, and chaired by the GEOG 499 supervisor. To graduate with honors, the student must complete the paper and the examinations and maintain the 3.50 and 3.25 grade point averages.

Minor Degrees Offered

The Geography Department offers three undergraduate minors. The first minor is a general minor in Geography. The second is specifically designed to provide students with a background in Geographic Information Science. The third minor is in atmospheric sciences. You should carefully consider which minor best meets your academic goals before choosing one.

Minor in Geography
Requires 18 hours of Geography courses with at least 12 hours numbered 300 or above and a minimum grade point average of 2.0 in courses taken for the minor.

Minor in Geographic Information Science
Requires the following:
1) GEOG 111 or GEOG 210, and GEOG 316 and GEOG 358
2) Three additional courses from the Geographic Information Science group (300 or above)
3) A minimum grade point average of 2.0 in courses taken for the minor

Minor in Atmospheric Science
Requires a minimum grade point average of 2.0 in courses taken for the minor.
Requires the following courses:
ATMO 105 Introductory Meteorology
ATMO 220 Unusual Weather or ATMO 321/GEOG 321 Climate and Climate Change
ATMO 505 Weather Forecasting
Requires three courses from the following choices:
ATMO 521 Microclimatology
ATMO 525 Air Pollution Meteorology
ATMO 630 Synoptic Meteorology
ATMO 640 Dynamic Meteorology
ATMO 642 Remote sensing of the Atmosphere
ATMO 680 Physical Meteorology
Departmental Facilities for Education and Research

The Geography Department has a number of research and educational facilities. Geography faculty members are also closely affiliated with a number of other campus departments, facilities, and resources. Within the Department, undergraduate students have free access to Departmental computer laboratories for GIS and Weather information (310 and 405 Lindley Hall). Software available includes the Microsoft Office suite, all ESRI GIS products, ERDAS Imagine (remote sensing) software and SPSS statistical software, as well as other mapping, scanning, and graphing software packages. Student-accessible hardware includes scanners, digitizers, printers, and plotters. A large-size plotter for posters and other printing is available through Cartographic Services. A second Remote Sensing laboratory specifically equipped with Remote Sensing and GIS software facilities is available for upper division classes. The weather laboratory is open to all students. It has computers for acquiring various atmospheric data over the Internet. It also contains readouts of several weather instruments on campus. Among the data obtained around the world are: surface observations, upper air soundings, output from numerical models, and satellite data. From the United States we also have profiler data, Doppler radar data, soundings taken by aircraft, and forecasts and discussions by the National Weather Service. Students interested in honors thesis projects and special research problems have access to other Department resources, including advanced computer resources for visualization and Global Positioning System (GPS) instrumentation.

The Department also houses other specialized laboratories. There are several physical geography laboratories for soil and geomorphological studies, plant ecology and dendrochronology, and palynology research. In addition there is a wide array of equipment for microclimatology and physical geography field projects. Much of this equipment is available for the biannual summer field camp held in the Rocky Mountains of Colorado. Advanced undergraduate students are eligible to participate in this class. Additional research opportunities and resources are provided through the Cartographic Services laboratory housed in the Department. This laboratory is a production cartography facility where students can intern to learn the art of production cartography.

Other campus resources are also available to students. Different faculty members have links to all the regional studies programs and their resources on campus. In addition, several faculty are linked with the Kansas Applied Remote Sensing (KARS) Center which is part of the NASA data depository program that provides numerous Remote Sensing and other digital data resources. Other data resources include the Kansas Geological Survey and its DASC program which houses numerous digital maps and data for the State of Kansas, and the T.R. Smith Map Library which is one of the top ten research map libraries in the country.

Undergraduate Geography Club

The Undergraduate Geography Club is an academic organization for geography majors and other students interested in geography. Educational, social, and career-related activities are planned by the officers for the twice-a-month meetings. Notices of meetings are posted in the department and put in student mailboxes in 218 Lindley.

Gamma Theta Upsilon

Gamma Theta Upsilon is an international honorary society for geography undergraduate majors and graduate students. To be eligible, a student must have a 3.0 grade point average in geography courses, have taken three courses in geography, and completed three semesters of college courses. Invitations to join GTU are issued annually.

AMS Student Chapter

There is a student chapter of the American Meteorological Society, which is open to anyone interested in meteorology. The chapter sponsors social and career-related activities. Meetings are announced in atmospheric sciences classes and through email.
Career Opportunities

A major in geography may lead to a career in cartography, environmental analysis, physical geography, regional analysis, urban and regional planning, or to employment that requires some combination of geographic sub-fields. A major in Atmospheric Science may lead to careers in weather forecasting, environmental consulting and air pollution specialists.

For information about particular career planning and counseling, students can contact:

University Career Center
110 Burge Union
(785) 864-3624
http://ucc.ku.edu

In addition, when students have narrowed their career options, they can contact faculty about counseling on careers in specific fields. Below are listed faculty contacts for some possible career choices within the Department of Geography:

**ATMOSPHERIC SCIENCES:** Donna Tucker, 404 Lindley; David Braaten, 413C Lindley; Nathaniel Brunsell, 417 Lindley; David Mechem, 230 Lindley, or Richard McNulty, 413A Lindley.

**CARTOGRAPHY:** George McCleary, 219 Lindley; or Terry Slocum, 215 Lindley.

**GIS:** Xingong Li, 409 Lindley; Terry Slocum, 207 Lindley; George McCleary, 219D Lindley; Stephen Egbert, 217C Lindley; or Jerome Dobson, 214 Lindley.

**HUMAN AND CULTURAL GEOGRAPHY:** Pete Shortridge, 209 Lindley; Garth Myers, 201 Lindley; Chris Brown, 223 Lindley; Peter Herlihy, 202 Lindley; Shannon O’Lear, 219B Lindley; So-Min Cheong, 221 Lindley; Barney Warf, 219C Lindley; or Jay Johnson, 402 Lindley.

**PHYSICAL AND ENVIRONMENTAL GEOGRAPHY:** William Johnson, 420 Lindley; Dan Hirmas, 415A Lindley; Johannes Feddema, 204 Lindley; or Kees van der Veen, 203 Lindley.

**REGIONAL GEOGRAPHY AND AREA STUDIES:** Chris Brown, 223 Lindley; So-Min Cheong, 221 Lindley; Peter Herlihy, 202 Lindley; Garth Myers, 201 Lindley; Shannon O’Lear, 219B Lindley; or Jay Johnson, 402 Lindley.

**REMOTE SENSING/ENVIRONMENTAL AND LAND USE ANALYSIS:** Stephen Egbert, 217C Lindley; or Jerome Dobson, 214 Lindley.

The following two pages show some of the possible job opportunities and skill sets associated with degrees in Atmospheric Science and Geography:
Atmospheric Science Occupational Possibilities

Atmospheric science majors possess skills applicable to numerous work settings. While many graduates pursue careers with the National Weather Service or in broadcasting, many other career options are available.

The following list, compiled from national data and from Major Options by Nicholas Basta (1991, New York: The Stonesong Press), presents a sampling of such positions that atmospheric science majors sometimes accept. Some of the listed occupations, such as special effects artist, require additional skills, knowledge, or training. Advanced graduate study is generally expected for those positions marked with an * on the list.

<table>
<thead>
<tr>
<th>Research and Technical</th>
<th>Education and Government</th>
<th>Communications</th>
<th>Business</th>
</tr>
</thead>
<tbody>
<tr>
<td>*Aerospace engineer</td>
<td>*Professor</td>
<td>Technical writer</td>
<td>Navigation equipment specialist</td>
</tr>
<tr>
<td>Instrument maker</td>
<td>National Weather</td>
<td>Educational television advisor</td>
<td></td>
</tr>
<tr>
<td>Photographer</td>
<td>Service forecaster</td>
<td>System support representative</td>
<td></td>
</tr>
<tr>
<td>*Research scientist</td>
<td>*Special librarian</td>
<td>Information specialist</td>
<td></td>
</tr>
<tr>
<td>Computer programmer</td>
<td>Museum exhibits planner</td>
<td>Newspaper science writer</td>
<td></td>
</tr>
<tr>
<td>*Optical design specialist</td>
<td>Cartographer</td>
<td>Broadcaster, television/radio</td>
<td></td>
</tr>
<tr>
<td>Mathematical technician</td>
<td>Military officer</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Air traffic controller</td>
<td>Aquarist</td>
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</table>

Skills and Abilities

The study of atmospheric science includes the development of skills in a variety of areas. Technical and communication skills, knowledge of mathematics, chemistry, and physics, and forecasting and expectation are all examples of fields which may be included in an atmospheric science major. The skills listed below are representative of those developed by atmospheric science majors that are transferable to various occupational fields.

<table>
<thead>
<tr>
<th>Investigation</th>
<th>Communication</th>
<th>Computation and Mathematical</th>
<th>Technical</th>
</tr>
</thead>
<tbody>
<tr>
<td>Defining a research problem</td>
<td>Developing and writing research proposals</td>
<td>Measuring distances/sizes/relationships</td>
<td></td>
</tr>
<tr>
<td>Developing a research model</td>
<td>Reviewing technical literature</td>
<td>Performing calculations</td>
<td>Designing equipment</td>
</tr>
<tr>
<td>Establishing hypotheses</td>
<td>Summarizing research findings</td>
<td>Mathematical modeling</td>
<td>Identifying and classifying materials/specimens</td>
</tr>
<tr>
<td>Gathering/analyzing data</td>
<td>Informing/explaining/instructing</td>
<td>Maintaining records</td>
<td>Observing data/things</td>
</tr>
<tr>
<td>Evaluating ideas</td>
<td>Preparing technical reports</td>
<td>Utilizing mathematical formulas</td>
<td>Establishing and controlling experimental designs</td>
</tr>
<tr>
<td>Seeing relationships among factors</td>
<td>Public speaking</td>
<td></td>
<td>Designing using computer simulations</td>
</tr>
<tr>
<td>Drawing meaningful conclusions</td>
<td></td>
<td></td>
<td>Using instruments</td>
</tr>
<tr>
<td>Projecting outcomes based on data</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Geography Occupational Possibilities

Through study of culture areas, physical and human landscapes, and interaction between people and environment, geography majors develop skills applicable to a wide range of occupations. The list below is only a sample of suitable careers for majors in geography, selected from national data and from Major Options by Nicholas Basta (1991, New York: The Stonesong Press), which is available for use at University Career and Employment Services.

Some occupations, such as demographer, may require specialized skills or additional training. Additional graduate study is generally required for listings marked with an *.

### Research and Technical
*Archaeologist
*Cartographer
*Computer simulation model designer
Demographer
Marketing researcher
*Climatologist
*Paleontologist
*Soil scientist
*Geologist
*Seismologist
Land-use planner
*Civic engineer
*Aquarist
*Petroleum engineer
*Meteorologist
*Botanist
*Systems engineer
*Manufacturing engineer
Geographer
Funeral director
*Medical assistant

### Education and Government
*Public administrator
Bicultural program specialist
Museum education director
Congressional committee staff director
Teacher
State/federal government policy analyst
Urban/regional planner
*College administrator
*Social worker
Foreign service officer
Military officer
Restoration carpenter
Wildlife biologist
Transportation planner
Community development analyst

### Communications
Editor
Technical writer
International agency representative
National/state park interpreter
Journalist/travel writer
Market analyst
Pastor
Statistician
*Therapist: group or recreation
Vocational guidance assistant

### Business
*Attorney
Environmental impact assessment researcher
Travel agent/guide
Human resources manager
Marketing manager
Advertising account executive
Executive search consultant
Salesperson
*Environmental scientist/engineer
Navigation equipment specialist
Airline pilot
Farmer
Real estate developer
Banker/trust officer

### Skills and Abilities

Students of geography develop general and technical skills and abilities applicable to diverse occupational paths. While many continue their education in graduate or law school, many other possibilities exist. The representative skills below may be used in a variety of careers. For example, cross-cultural observational skills may be equally useful for a travel planner, a human resources manager, or a freelance journalist.

### Project Development
Planning long-term projects
Developing project designs
Writing grant proposals
Evaluating and maintaining records

### Interpersonal Relations
Interviewing
Understanding group dynamics
Observing human interactions
Recognizing cultural differences/similarities
Surveying and sampling
Identifying value systems

### Analysis and Research
Gathering and organizing data
Examining data
Conducting field studies
Applying non-intrusive methods
Computer modeling
Reaching new conclusions through comparative study
Utilizing statistical applications
Reading/constructing maps/graphs

### Communication
Summarizing results
Writing clearly
Presenting/defending a position
Communicating across cultures/languages
Understanding societal development
FACULTY
2009-10

REGULAR FACULTY

DAVID A. BRAATEN (Professor): Atmospheric Science, remote sensing, climate change. Research on polar ice sheet characteristics and snow accumulation processes.

J. CHRISTOPHER BROWN (Associate Professor): Political ecology, biogeography, tropical environments, Latin America. Research on issues of sustainability in the Amazon.

NATHANIEL A. BRUNSELL (Assistant Professor): Land-atmosphere interactions, remote sensing, micrometeorology. Research on the spatial and temporal variability of water, carbon, and energy cycling.

SO-MIN CHEONG (Assistant Professor): Economic, sustainable resources, East Asia. Research on integration of science and policy.

JEROME E. DOBSON (Professor): Geographic information science, cultural geography. Research on the integration of remote sensing, geohistorical and cultural geography.


JOHANNES J. FEDDEMA (Professor): Climatology, water resources, geographic information science. Research on global climate change, African water resources and watershed modeling.

PETER H. HERLIHY (Associate Professor): Cultural and historical geography, Latin America. Research on indigenous peoples, conservation, and participatory mapping in Central America.

DANIEL R. HIRMAS (Assistant Professor): Pedology, soil geomorphology, soil mineralogy. Research on soil-landscape relationships, biogeochemical cycling of desert soils, and pedogenic modeling.


WILLIAM C. JOHNSON (Professor): Fluvial geomorphology, geoarchaeology, palynology. Research on historic and prehistoric changes in river systems and Late Quaternary environments.

XINGONG LI (Assistant Professor): Geographic information science, spatial analysis. Research on computational methods of analysis of spatial data.

GEORGE F. MCCLEARY, JR. (Associate Professor): Cartography, behavioral systems, human factors. Research on map design, map use, and cognitive mapping.

DAVID B. MECHEN (Assistant Professor): Physical meteorology, cloud and mesoscale dynamics. Research on cloud microphysics and dynamics, mesoscale processes, numerical modeling, and boundary layer clouds.

GARTH A. MYERS (Professor): Cultural and political geography, development, Sub-Saharan Africa. Research on urban and regional development in Eastern Africa, cultural studies, and social theory in geography.
SHANNON R. O’LEAR (Associate Professor): Cultural and political geography, environmental policy, Russia, the Caucasus and Central Asia. Research on resource conflict in Azerbaijan.

JAMES R. SHORTRIDGE (Professor): Cultural and historical geography, North America. Research on American regionalism and sense of place.

TERRY A. SLOCUM (Associate Professor): Cartography, geographic information science, quantitative methods. Research on visualization and animation.

DONNA F. TUCKER (Associate Professor): Atmospheric science. Research on numerical modeling and mesoscale precipitation systems.

KEES VAN DER Veen (Professor): Glaciology, ice-climate interactions, global environmental change. Research on dynamics and mass balance of fast-moving ice streams and outlet glaciers in Greenland and Antarctica, remote sensing applications for glacial geomorphology.

BARNEY L. WARF (Professor): Economic geography, social theory, urban geography. Research on telecommunications, cyberspace, elections.


AFFILIATED FACULTY:

STEVE BOZARTH (Adjunct Assistant Professor): Paleoenvironmental reconstruction, phytolith analysis, landscape evolution.

ROBERT W. BUDDEMEIER (Courtesy Professor): Hydrologic systems, water resources, climate change.

RICHARD MCNULTY (Lecturer): Weather forecasting and thunderstorms.

MARK JAKUBAUSKAS (Courtesy Associate Professor): Remote sensing, geographic information systems, plant geography.

KYLE JURACEK (Adjunct Assistant Professor): Hydrology, fluvial geomorphology, geographic information systems.

ROLFE MANDEL (Adjunct Associate Professor): Soils, geoarcheology, quaternary sediments.

EDWARD MARTINKO (Courtesy Professor): Applied remote sensing, ecological systems, environmental studies.

BARBARA G. SHORTRIDGE (Lecturer): Cultural, gender, urban.
GEOGRAPHY COURSE CLASSIFICATION.

Beyond the core introductory courses (GEOG 100, 102, 104, 105, 148 and their honors equivalents) the Geography Department has classified its course offerings into four major categories including Physical, Human, Techniques and Regional Studies. These general categories are used to set some of the degree requirements.

### Physical Studies

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>GEOG 148</td>
<td>Principles of Environmental Studies</td>
</tr>
<tr>
<td>GEOG 304</td>
<td>Environmental Conservation</td>
</tr>
<tr>
<td>GEOG 321</td>
<td>Climate and Climate Change</td>
</tr>
<tr>
<td>GEOG 331</td>
<td>Regional Geomorphology of the US</td>
</tr>
<tr>
<td>GEOG 332</td>
<td>Glaciers and Landscape</td>
</tr>
<tr>
<td>GEOG 335</td>
<td>Introduction to Soil Geography</td>
</tr>
<tr>
<td>GEOG 338</td>
<td>Introduction to River Systems</td>
</tr>
<tr>
<td>GEOG 339</td>
<td>Topics in Physical Geography:___</td>
</tr>
<tr>
<td>GEOG 350</td>
<td>Physical Geography of Africa</td>
</tr>
<tr>
<td>GEOG 351</td>
<td>Topics in Physical Geography:___</td>
</tr>
<tr>
<td>GEOG 352</td>
<td>Geochronology</td>
</tr>
<tr>
<td>GEOG 353</td>
<td>Soil Geography</td>
</tr>
<tr>
<td>GEOG 354</td>
<td>Landscape Ecology</td>
</tr>
<tr>
<td>GEOG 355</td>
<td>Elements of Plant Geography</td>
</tr>
<tr>
<td>GEOG 356</td>
<td>Environmental Soil Physics &amp; Chemistry</td>
</tr>
<tr>
<td>GEOG 357</td>
<td>Geomorphology</td>
</tr>
<tr>
<td>GEOG 358</td>
<td>Topics in Physical Geography:___</td>
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<tr>
<td>GEOG 359</td>
<td>Soil Geomorphology</td>
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<tr>
<td>GEOG 361</td>
<td>Advanced Geomorphology</td>
</tr>
<tr>
<td>GEOG 749</td>
<td>Gas Source Stable Isotopes</td>
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### Geographic Information Science

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<td>Maps and Mapping</td>
</tr>
<tr>
<td>GEOG 210</td>
<td>Computers, Maps and Geographical Analysis</td>
</tr>
<tr>
<td>GEOG 311</td>
<td>Map Conception and Development</td>
</tr>
<tr>
<td>GEOG 316</td>
<td>Methods of Analyzing Geographical Data</td>
</tr>
<tr>
<td>GEOG 319</td>
<td>Topics in Techniques:</td>
</tr>
<tr>
<td>GEOG 357</td>
<td>History &amp; Philosophy of GIS</td>
</tr>
<tr>
<td>GEOG 358</td>
<td>Principles of Geographic Information Systems</td>
</tr>
<tr>
<td>GEOG 418</td>
<td>Internship in Production Cartography</td>
</tr>
<tr>
<td>GEOG 433</td>
<td>Biogeography Field &amp; Laboratory Techniques</td>
</tr>
<tr>
<td>GEOG 458</td>
<td>Geographic Information Systems:___</td>
</tr>
<tr>
<td>GEOG 511</td>
<td>Intermediate Cartography:___</td>
</tr>
<tr>
<td>GEOG 513</td>
<td>Cartographic Design</td>
</tr>
<tr>
<td>GEOG 514</td>
<td>Visualizing Spatial Data</td>
</tr>
<tr>
<td>GEOG 516</td>
<td>Applied Multivariate Analysis in Geography</td>
</tr>
<tr>
<td>GEOG 517</td>
<td>Data Handling and Map Symbolization</td>
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<tr>
<td>GEOG 526</td>
<td>Remote Sensing of Environment I</td>
</tr>
<tr>
<td>GEOG 558</td>
<td>Intermediate Geographic Information Systems</td>
</tr>
<tr>
<td>GEOG 560</td>
<td>GIS Application Programming</td>
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<tr>
<td>GEOG 573</td>
<td>Advanced Geographic Analysis</td>
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<tr>
<td>GEOG 658</td>
<td>Topics in Geographic Information Science:___</td>
</tr>
<tr>
<td>GEOG 711</td>
<td>Advanced Cartography:___</td>
</tr>
<tr>
<td>GEOG 713</td>
<td>Practicum in Cartography</td>
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<tr>
<td>GEOG 714</td>
<td>Field Experience</td>
</tr>
<tr>
<td>GEOG 716</td>
<td>Advanced Geostatistics</td>
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<tr>
<td>GEOG 726</td>
<td>Remote Sensing of Environment II</td>
</tr>
<tr>
<td>GEOG 758</td>
<td>Geographic Information Science</td>
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### Human Studies

<table>
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<tr>
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<tbody>
<tr>
<td>GEOG 150</td>
<td>Environment and Society</td>
</tr>
<tr>
<td>GEOG 352</td>
<td>Economic Geography</td>
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</table>

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>GEOG 370</td>
<td>Introduction to Cultural Geography</td>
</tr>
<tr>
<td>GEOG 371</td>
<td>Environmental Geopolitics</td>
</tr>
<tr>
<td>GEOG 375</td>
<td>Intermediate Human Geography</td>
</tr>
<tr>
<td>GEOG 377</td>
<td>Urban Geography</td>
</tr>
<tr>
<td>GEOG 379</td>
<td>Topics in Cultural Geography:___</td>
</tr>
<tr>
<td>GEOG 510</td>
<td>Human Factors</td>
</tr>
<tr>
<td>GEOG 515</td>
<td>Behavioral Systems</td>
</tr>
<tr>
<td>GEOG 519</td>
<td>History of Cartography</td>
</tr>
<tr>
<td>GEOG 551</td>
<td>Intermediate Economic Geography</td>
</tr>
<tr>
<td>GEOG 552</td>
<td>Topics in Urban/Economic Geog:___</td>
</tr>
<tr>
<td>GEOG 556</td>
<td>Geography of the Energy Crisis</td>
</tr>
<tr>
<td>GEOG 557</td>
<td>Cities and Development</td>
</tr>
<tr>
<td>GEOG 570</td>
<td>Geography of American Indians</td>
</tr>
<tr>
<td>GEOG 571</td>
<td>Topics in Cultural Geography:___</td>
</tr>
<tr>
<td>GEOG 572</td>
<td>Political Geography</td>
</tr>
<tr>
<td>GEOG 575</td>
<td>Geography of Population</td>
</tr>
<tr>
<td>GEOG 576</td>
<td>Cultural Geography of the United States</td>
</tr>
<tr>
<td>GEOG 579</td>
<td>Geography of American Foodways</td>
</tr>
<tr>
<td>GEOG 601</td>
<td>Indigenous Peoples of the World</td>
</tr>
<tr>
<td>GEOG 657</td>
<td>Geographic Models</td>
</tr>
<tr>
<td>GEOG 670</td>
<td>Cultural Ecology</td>
</tr>
<tr>
<td>GEOG 710</td>
<td>Information Design</td>
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<tr>
<td>GEOG 719</td>
<td>Development of Geographic Thought</td>
</tr>
<tr>
<td>GEOG 751</td>
<td>Analysis of Regional Development</td>
</tr>
<tr>
<td>GEOG 752</td>
<td>Topics in Urban/Economic Geog:___</td>
</tr>
<tr>
<td>GEOG 756</td>
<td>Energy Problems &amp; the Economic-Physical Environment</td>
</tr>
<tr>
<td>GEOG 771</td>
<td>Topics in Cultural Geography:___</td>
</tr>
<tr>
<td>GEOG 772</td>
<td>Problems in Political Geography</td>
</tr>
<tr>
<td>GEOG 773</td>
<td>Humanistic Geography</td>
</tr>
<tr>
<td>GEOG 775</td>
<td>Proseminar in Population Geography</td>
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</tbody>
</table>

### Regional Studies

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>GEOG 351</td>
<td>Africa’s Human Geographies</td>
</tr>
<tr>
<td>GEOG 390</td>
<td>Geography of the United States and Canada</td>
</tr>
<tr>
<td>GEOG 395</td>
<td>Environmental Issues of:___</td>
</tr>
<tr>
<td>GEOG 396</td>
<td>China’s Geographies</td>
</tr>
<tr>
<td>GEOG 397</td>
<td>Geography of Kansas and the Plains</td>
</tr>
<tr>
<td>GEOG 399</td>
<td>Topics in Regional Studies:___</td>
</tr>
<tr>
<td>GEOG 550</td>
<td>Environmental Issues in Africa</td>
</tr>
<tr>
<td>GEOG 553</td>
<td>Geography of African Development</td>
</tr>
<tr>
<td>GEOG 591</td>
<td>Geography of Latin America</td>
</tr>
<tr>
<td>GEOG 592</td>
<td>Middle American Geography</td>
</tr>
<tr>
<td>GEOG 593</td>
<td>Central American Peoples and Lands</td>
</tr>
<tr>
<td>GEOG 594</td>
<td>Geography of the Former Soviet Union</td>
</tr>
<tr>
<td>GEOG 595</td>
<td>Geography of Eastern Europe</td>
</tr>
<tr>
<td>GEOG 596</td>
<td>Geography of China</td>
</tr>
<tr>
<td>GEOG 597</td>
<td>Geography of Brazil</td>
</tr>
<tr>
<td>GEOG 790</td>
<td>North American Regions:___</td>
</tr>
<tr>
<td>GEOG 791</td>
<td>Latin American Regions:___</td>
</tr>
<tr>
<td>GEOG 794</td>
<td>Regions of the Former USSR</td>
</tr>
<tr>
<td>GEOG 795</td>
<td>European Regions:___</td>
</tr>
<tr>
<td>GEOG 796</td>
<td>Asian Regions:___</td>
</tr>
</tbody>
</table>

Courses with a _____ at the end of their title are typically topics or seminar courses and may be repeated for credit. Usually these courses will offer different topics of study each time they are offered. Students should check with the course instructor to see what the requirements are to take the course and what the topic will be when it is offered.
**Bachelor of Arts in Geography**

**College requirements**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Description</th>
<th>Credit Hrs</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL 101</td>
<td></td>
<td>0-3</td>
</tr>
<tr>
<td>ENGL 102</td>
<td></td>
<td>0-3</td>
</tr>
<tr>
<td>ENGL 203, 205, 209, 210 or 211</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>COMS 130, 131, 230 or PHIL 148, 310 or exemption</td>
<td></td>
<td>0-3</td>
</tr>
<tr>
<td>MATH 101 or 104 or exemption</td>
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<td>0-3</td>
</tr>
<tr>
<td>MATH 105, 106, 111, 115, 121, 365 or BIOL 570</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Non-Western Culture</td>
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<td>3</td>
</tr>
<tr>
<td>HWC 204 or 114</td>
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<td>3</td>
</tr>
<tr>
<td>HWC 205 or 115</td>
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**Language:**

<table>
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<tr>
<td>2.</td>
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<td>3.</td>
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<td>4.</td>
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**Principal Course Requirement**

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<tr>
<td>HL</td>
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<tr>
<td>HR</td>
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<tr>
<td>SC</td>
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</tr>
<tr>
<td>SI</td>
<td>3</td>
</tr>
<tr>
<td>SF</td>
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</table>

**Physical Science (3 of the 4 categories – NB, NE, NM, NP)**

<table>
<thead>
<tr>
<th>Description</th>
<th>Credit Hrs</th>
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<tbody>
<tr>
<td>1.</td>
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<tr>
<td>2.</td>
<td>3</td>
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<tr>
<td>3.</td>
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</table>

**Geography Course requirements**

<table>
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<th>Description</th>
<th>Credit Hrs</th>
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<tbody>
<tr>
<td>GEOG 104</td>
<td>Principles of Physical Geography (or GEOG 107)</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 105</td>
<td>Introductory Laboratory in Physical Geography</td>
<td>2</td>
</tr>
<tr>
<td>GEOG 102</td>
<td>Principles of Human Geography (or GEOG 103)</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 111</td>
<td>(4) or 311 (4) or 316 (4) or 358 (4)</td>
<td>4</td>
</tr>
<tr>
<td>GEOG 100</td>
<td>World Regional Geography (or GEOG 101) or other regional course</td>
<td>3</td>
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**15 additional credit hours selected from at least 3 of the 4 major categories (see course offerings):**

<table>
<thead>
<tr>
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<th>Category</th>
<th>Credit Hrs</th>
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<tr>
<td>2.</td>
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<td>5.</td>
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**Hour and GPA requirements**

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<th>Credit Hrs</th>
<th>Notes</th>
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<tbody>
<tr>
<td>Total Credit hours (≥124)</td>
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<tr>
<td>CLAS hours (≥99)</td>
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<tr>
<td>Junior Senior hours (≥45)</td>
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<tr>
<td>KU Res hours (≥30)</td>
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<tr>
<td>CC Transfer credits (≤64)</td>
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<tr>
<td>Other KU Schools (≤25)</td>
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<tr>
<td>Hrs Music Org. (≤6)</td>
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<tr>
<td>Hrs Phys Ed (≤4)</td>
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<tr>
<td>Overall GPA (≥2.0)</td>
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<tr>
<td>Geography GPA (≥2.0)</td>
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**BACHELOR OF GENERAL STUDIES IN GEOGRAPHY**

### College requirements

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<th>Course Title</th>
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<tr>
<td>ENGL 101</td>
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<tr>
<td>ENGL 102</td>
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<td>0-3</td>
</tr>
<tr>
<td>ENGL 203, 205, 209, 210 or 211</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>COMS 130, 131, 230 or PHIL 148, 310 or exemption</td>
<td></td>
<td>0-3</td>
</tr>
<tr>
<td>MATH 101 or 104 or exemption</td>
<td></td>
<td>0-3</td>
</tr>
<tr>
<td>MATH 105, 106, 111, 115, 121, 365 or BIOL 570</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Non-Western Culture</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>HWC 204 or 114</td>
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<tr>
<td>HWC 205 or 115</td>
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</table>

### Principal Course requirements

- Two Humanities categories: 3
- Two Social Science categories: 3
- Two Physical Science categories: 3

### Minor Course requirements OR three course concentration (upper division)

<table>
<thead>
<tr>
<th>Course</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td></td>
</tr>
<tr>
<td>3.</td>
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</tr>
<tr>
<td>4.</td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td></td>
</tr>
</tbody>
</table>

### Geography Course requirements

- GEOG 104 Principles of Physical Geography (or GEOG 107) | 3
- GEOG 105 Introductory Laboratory in Physical Geography | 2
- GEOG 102 Principles of Human Geography (or GEOG 103) | 3
- GEOG 111 (4) or 311 (4) or 316 (4) or 358 (4) | 4
- GEOG 100 World Regional Geography (or GEOG 101) or other regional course | 3

15 additional credit hours selected from at least 3 of the 4 major categories (see course offerings):

<table>
<thead>
<tr>
<th>Course</th>
<th>Category</th>
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</thead>
<tbody>
<tr>
<td>1.</td>
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<td>2.</td>
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<td>3.</td>
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<tr>
<td>4.</td>
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<tr>
<td>5.</td>
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</tbody>
</table>

### Hour and GPA requirements

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Credit hours (≥124)</td>
<td>......</td>
</tr>
<tr>
<td>CC Transfer credits (≤64)</td>
<td>......</td>
</tr>
<tr>
<td>Overall GPA (≥ 2.0)</td>
<td>......</td>
</tr>
<tr>
<td>CLAS hours (≥ 99)</td>
<td>......</td>
</tr>
<tr>
<td>Other KU Schools (≤25)</td>
<td>......</td>
</tr>
<tr>
<td>Geography GPA (≥2.0)</td>
<td>......</td>
</tr>
<tr>
<td>Junior Senior hours (≥45)</td>
<td>......</td>
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<tr>
<td>Hrs Music Org. (≤ 6)</td>
<td>......</td>
</tr>
<tr>
<td>KU Res. hours (≥30)</td>
<td>......</td>
</tr>
<tr>
<td>Hrs Phys Ed (≤ 4)</td>
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</table>
BACHELOR OF SCIENCE IN GEOGRAPHY: PHYSICAL GEOGRAPHY OPTION

General Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>credit hrs</th>
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<tbody>
<tr>
<td>English - ENGL 101 (or exemption)</td>
<td>0-3</td>
</tr>
<tr>
<td>ENGL 102 (or 105 or exemption)</td>
<td>0-3</td>
</tr>
<tr>
<td>200-level English course (ENGL 362 recommended)</td>
<td>3</td>
</tr>
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<td>COMS 130 (COMS 230, PHIL 148, PHIL 310, exemption)</td>
<td>0-3</td>
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<td>3</td>
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<td>3</td>
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<tr>
<td>English - ENGL 101 (or exemption)</td>
<td>0-3</td>
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<td>English - ENGL 101 (or exemption)</td>
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</table>

Choose one of the following or approval of Undergraduate committee

PHIL 370, 375, 380, 620, 622
GEOG 357

Two principal courses in the Humanities

Two principal courses in the Social Sciences

Preparation for the major

<table>
<thead>
<tr>
<th>Course</th>
<th>credit hrs</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 121 and MATH 122 (recommended) or MATH 115 and MATH 116</td>
<td>6-10</td>
</tr>
<tr>
<td>PHSX 211 and PHSX 212 (recommended) or PHSX 114 and PHSX 115</td>
<td>6-8</td>
</tr>
<tr>
<td>BIOL 152 and BIOL 414</td>
<td>7</td>
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<tr>
<td>CHEM 184 and CHEM 188</td>
<td>10</td>
</tr>
<tr>
<td>EECS 128 or equivalent</td>
<td>3</td>
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</tbody>
</table>

Geography Requirements

Overview Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>credit hrs</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOG 104 Principles of Physical Geography or GEOG 107 (Honors)</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 105 Introductory Laboratory in Physical Geography</td>
<td>2</td>
</tr>
<tr>
<td>GEOG 100 or GEOG 102 (or honors equivalent)</td>
<td>3</td>
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</tbody>
</table>

Foundation Courses:

a. Physical: Choose three of the following

<table>
<thead>
<tr>
<th>Course</th>
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</thead>
<tbody>
<tr>
<td>GEOG 304 Environmental Conservation</td>
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<tr>
<td>GEOG 321 Climate and Climate Change</td>
<td></td>
</tr>
<tr>
<td>GEOG 331 Regional Geomorphology of the United States</td>
<td></td>
</tr>
<tr>
<td>GEOG 335 Introduction to Soil Geography (or GEOG 535 Soil Geography)</td>
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<tr>
<td>GEOG 338 River Systems</td>
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</table>

b. Geographic Information Science: The following are required

<table>
<thead>
<tr>
<th>Course</th>
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</thead>
<tbody>
<tr>
<td>GEOG 316 Methods of Analyzing Geographical Data</td>
<td></td>
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<tr>
<td>GEOG 358 Principles of Geographic Information Systems</td>
<td></td>
</tr>
<tr>
<td>GEOG 526 Remote Sensing of the Environment I</td>
<td></td>
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</table>

c. Field Experience: Choose one of the following

<table>
<thead>
<tr>
<th>Course</th>
<th>credit hrs</th>
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</thead>
<tbody>
<tr>
<td>EVRN 460 Field Ecology</td>
<td></td>
</tr>
<tr>
<td>GEOG 433 Biogeography Field and Laboratory Techniques</td>
<td></td>
</tr>
<tr>
<td>GEOG 714 Field Experience</td>
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</table>

Elective Courses:

a. 6 additional hours from the Physical geography course list (300 or above)

b. 6 additional hours of Geography (any group, 300 or above)

c. 6 additional hours in Allied Field (ATMO, BIOL, EVRN or GEOL)

Hour and GPA requirement

<table>
<thead>
<tr>
<th>Requirement</th>
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<tr>
<td>Total Credit hours (≥124)</td>
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<td>KU Res hours (≥30)</td>
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<td></td>
</tr>
<tr>
<td>Hrs Phys Ed (≤4)</td>
<td></td>
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<tr>
<td>Overall GPA (≥2.0)</td>
<td></td>
</tr>
<tr>
<td>Geography GPA (≥2.0)</td>
<td></td>
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</tbody>
</table>
BACHELOR OF SCIENCE IN GEOGRAPHY: GEOGRAPHICAL INFORMATION AND ANALYSIS OPTION

General Requirements

<table>
<thead>
<tr>
<th>Course Details</th>
<th>Credit Hrs</th>
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<tbody>
<tr>
<td>English - ENGL 101 (or exemption)</td>
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<td>ENGL 102 (or 105 or exemption)</td>
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<tr>
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<tr>
<td>PHIL 370, 375, 380, 620, 622</td>
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<tr>
<td>GEOG 357</td>
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<tr>
<td>Two principal courses in the Humanities</td>
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<td>Two principal courses in the Social Sciences</td>
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</table>

Preparation for the major

<table>
<thead>
<tr>
<th>Course Details</th>
<th>Credit Hrs</th>
</tr>
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<tbody>
<tr>
<td>MATH 121 and MATH 122 (or MATH 115, MATH 116 and MATH 122)</td>
<td>10-11</td>
</tr>
<tr>
<td>EECS 138 or GEOG 514 or equivalent</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 114 and 115 or BIOL 150 and 152</td>
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Geography Requirements

Overview Geography courses

<table>
<thead>
<tr>
<th>Course Details</th>
<th>Credit Hrs</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOG 104 (GEOG 107) or GEOG 148 (149)</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 111 or GEOG 210</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 100 (101) or GEOG 102 (103)</td>
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Additional Geography

<table>
<thead>
<tr>
<th>Course Details</th>
<th>Credit Hrs</th>
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<tbody>
<tr>
<td>Two GEOG 300+ courses in Physical Studies, Human Studies and/or Regional Studies</td>
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</table>

Core Geographic Information Science (Six courses, at least one from each category)

<table>
<thead>
<tr>
<th>Course Details</th>
<th>Credit Hrs</th>
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<tbody>
<tr>
<td>Cartography and Visualization: GEOG 311, GEOG 513, GEOG 517</td>
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</tr>
<tr>
<td>Geographical Information Systems: GEOG 358, GEOG 558, GEOG 758</td>
<td></td>
</tr>
<tr>
<td>Remote Sensing: GEOG 526, GEOG 726</td>
<td></td>
</tr>
<tr>
<td>Statistics: GEOG 316, GEOG 516, GEOG 716</td>
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Geographic Information Science Electives

<table>
<thead>
<tr>
<th>Course Details</th>
<th>Credit Hrs</th>
</tr>
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<tbody>
<tr>
<td>Two other courses from GIS Studies (GEOG 511 and 514 recommended)</td>
<td>6-8</td>
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</table>

Allied Field: 3 courses and 9 credit hours minimum in one field (or a minor):

<table>
<thead>
<tr>
<th>Course Details</th>
<th>Credit Hrs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Example areas: Area Studies, Atmospheric Science, Biology, Computer Science, Design, Environmental Studies, Engineering, Geology, Psychology, Urban Planning</td>
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</table>

Electives (17-26 credits, any university courses)

<table>
<thead>
<tr>
<th>Course Details</th>
<th>Credit Hrs</th>
</tr>
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<tbody>
<tr>
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<td>17-26</td>
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</table>

Hour and GPA requirements

<table>
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<tr>
<th>Course Details</th>
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<tbody>
<tr>
<td>Total Credit hours (≥124)</td>
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<tr>
<td>KU Res hours (≥30)</td>
<td></td>
</tr>
<tr>
<td>Hrs Phys Ed (≤ 4)</td>
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</table>
**BACHELOR OF SCIENCE IN ATMOSPHERIC SCIENCE: GENERAL METEOROLOGY OPTION**

**General Requirements**

<table>
<thead>
<tr>
<th>Requirement</th>
<th>credit hrs</th>
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<tbody>
<tr>
<td>English - ENGL 101 (or exemption)</td>
<td>0-3</td>
</tr>
<tr>
<td>ENGL 102 (or 105 or exemption)</td>
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</tr>
<tr>
<td>Additional English (ENGL 203, 205, 209, 210, 211, or 362; ENGL 362 recommended)</td>
<td>3</td>
</tr>
<tr>
<td>COMS 130 or COMS 150 (or exemption)</td>
<td>0-3</td>
</tr>
<tr>
<td>COMS 330 (Recommended to take during the senior year)</td>
<td>3</td>
</tr>
<tr>
<td>One course in the Humanities</td>
<td>3</td>
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<tr>
<td>One course in the Social Sciences</td>
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</table>

**Preparation for the major**

<table>
<thead>
<tr>
<th>Requirement</th>
<th>credit hrs</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 121, MATH 122, MATH 223 and MATH 290</td>
<td>15</td>
</tr>
<tr>
<td>MATH 220 or MATH 320</td>
<td>3</td>
</tr>
<tr>
<td>PHSX 211 and PHSX 212 (PHSX 213 and 214 recommended: special permission provided)</td>
<td>8</td>
</tr>
<tr>
<td>EECS 138</td>
<td>3</td>
</tr>
<tr>
<td>MATH 581</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 184</td>
<td>5</td>
</tr>
<tr>
<td>DSCI 301 or MATH 526</td>
<td>3 or 4</td>
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<tr>
<td>EVRN 148</td>
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**Atmospheric Sciences Requirements**

**Core Atmospheric Sciences courses**

<table>
<thead>
<tr>
<th>Requirement</th>
<th>credit hrs</th>
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</thead>
<tbody>
<tr>
<td>ATMO 105</td>
<td>5</td>
</tr>
<tr>
<td>ATMO 321/GEOG 321</td>
<td>3</td>
</tr>
<tr>
<td>ATMO 505</td>
<td>3</td>
</tr>
<tr>
<td>ATMO 521/GEOG 521</td>
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<tr>
<td>ATMO 630</td>
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</tr>
<tr>
<td>ATMO 640</td>
<td>3</td>
</tr>
<tr>
<td>ATMO 642</td>
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</tr>
<tr>
<td>ATMO 660</td>
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<td>ATMO 680</td>
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<td>ATMO 697</td>
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</tbody>
</table>

**NOTE:** Math 320 should be completed by the Junior year; ATMO 640 should be taken in/by the fall semester of the junior year, with ATMO 630 and ATMO 660 being taken in the Spring of the Junior year

**Additional Atmospheric Sciences**

<table>
<thead>
<tr>
<th>Requirement</th>
<th>credit hrs</th>
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<tbody>
<tr>
<td>ATMO 506</td>
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<td>ATMO 525</td>
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<td>ATMO 650</td>
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**Electives** (21 credits, any university courses: Note general University restrictions below)

<table>
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<tr>
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<tr>
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**Hour and GPA requirements**

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</table>
# Bachelor of Science in Atmospheric Science: General Meteorology Option with Minor in Mathematics

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## Preparation for the Major

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<tr>
<td>MATH 121, MATH 122, MATH 223 and MATH 290</td>
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<tr>
<td>MATH 320</td>
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<tr>
<td>PHYSX 211 and PHYSX 212 (PHSX 213 and 214 recommended: special permission provided)</td>
<td>8</td>
</tr>
<tr>
<td>EECS 138</td>
<td>3</td>
</tr>
<tr>
<td>MATH 581</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 184</td>
<td>5</td>
</tr>
<tr>
<td>MATH 526</td>
<td>3 or 4</td>
</tr>
<tr>
<td>EVRN 148</td>
<td>3</td>
</tr>
<tr>
<td>MATH elective (MATH 647, MATH 646, MATH 611 or MATH 605 suggested)</td>
<td>3</td>
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## Atmospheric Sciences Requirements

### Core Atmospheric Sciences courses

<table>
<thead>
<tr>
<th>Course Details</th>
<th>Credit Hrs</th>
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</thead>
<tbody>
<tr>
<td>ATMO 105</td>
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<tr>
<td>ATMO 321/GEOG 321</td>
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<tr>
<td>ATMO 505</td>
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<td>ATMO 521/GEOG 521</td>
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<td>ATMO 630</td>
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<td>ATMO 680</td>
<td>3</td>
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<tr>
<td>ATMO 697</td>
<td>1</td>
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</table>

**NOTE:** Math 320 should be completed by the Junior year; ATMO 640 should be taken in/by the fall semester of the junior year, with ATMO 630 and ATMO 660 being taken in the Spring of the Junior year

### Additional Atmospheric Sciences

<table>
<thead>
<tr>
<th>Course Details</th>
<th>Credit Hrs</th>
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<tbody>
<tr>
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<td>ATMO 525</td>
<td>2</td>
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<tr>
<td>ATMO 650</td>
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### Electives (19 credits, any university courses: Note general University restrictions below)

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<th>Credit Hrs</th>
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## Hour and GPA requirements

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<thead>
<tr>
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<th>Credit Hours</th>
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<tbody>
<tr>
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<td></td>
</tr>
<tr>
<td>CLAS hours (≥99)</td>
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<td>ATMO GPA (≥2.0)</td>
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</table>
# Bachelor of Science in Atmospheric Science: Air Pollution Option

## General Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hrs</th>
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<tbody>
<tr>
<td>English - ENGL 101 (or exemption)</td>
<td>0-3</td>
</tr>
<tr>
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<td>3</td>
</tr>
<tr>
<td>One course in the Humanities</td>
<td>3</td>
</tr>
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<td>One course in the Social Sciences</td>
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<tr>
<th>Course</th>
<th>Credit Hrs</th>
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</tr>
<tr>
<td>EVRN 148</td>
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## Atmospheric Sciences Requirements

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<tr>
<th>Course</th>
<th>Credit Hrs</th>
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<tbody>
<tr>
<td>ATMO 105</td>
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**NOTE:** Math 320 should be completed by the Junior year; ATMO 640 should be taken in/ by the fall semester of the Junior year, and ATMO 660 being taken in the Spring of the Junior year.

### Additional Atmospheric Sciences

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<thead>
<tr>
<th>Course</th>
<th>Credit Hrs</th>
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<tr>
<td>ATMO 525</td>
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### Additional Course work outside Atmospheric Sciences

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hrs</th>
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<td>CHEM 188</td>
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<td>C E 477</td>
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### Electives (18 credits, any university courses: Note general University restrictions below)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hrs</th>
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### Hour and GPA requirements

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<th>Minimum Credits</th>
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</table>
BACHELOR OF SCIENCE IN ATMOSPHERIC SCIENCE: HYDROMETEOROLOGY OPTION

General Requirements

<table>
<thead>
<tr>
<th>Course Description</th>
<th>Credit Hrs</th>
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<tr>
<td>English - ENGL 101 (or exemption)</td>
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Preparation for the major

<table>
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<th>Course Description</th>
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<tbody>
<tr>
<td>MATH 121, MATH 122, MATH 223 and MATH 290</td>
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Atmospheric Sciences Requirements

Core Atmospheric Sciences courses

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<thead>
<tr>
<th>Course Description</th>
<th>Credit Hrs</th>
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<tbody>
<tr>
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<td>ATMO 640</td>
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<td>ATMO 680</td>
<td>3</td>
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<tr>
<td>ATMO 697</td>
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</table>

NOTE: Math 320 should be completed by the Junior year; ATMO 640 should be taken in/ by the fall semester of the Junior year, and ATMO 660 being taken in the Spring of the Junior year

Additional Atmospheric Sciences

<table>
<thead>
<tr>
<th>Course Description</th>
<th>Credit Hrs</th>
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<tbody>
<tr>
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Civil Engineering requirements

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<td>C E 455</td>
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NOTE: You need to start this sequence by the beginning of your junior year, and you need to have finished the math and physics prerequisites to start this sequence.

Electives (12 credits, any university courses: Note general University restrictions below)

<table>
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Hour and GPA requirements

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<td>ATMO GPA (≥2.0)</td>
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BACHELOR OF SCIENCE IN ATMOSPHERIC SCIENCE: NEWS MEDIA FORECASTING OPTION

General Requirements

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<th>Course Description</th>
<th>Credit Hrs</th>
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<td>English - ENGL 101 (or exemption)</td>
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Atmospheric Sciences Requirements

Core Atmospheric Sciences courses

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<tr>
<th>Course Description</th>
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<tbody>
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Additional Atmospheric Sciences

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<tr>
<td>ATMO 506</td>
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Journalism requirements

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<th>Credit Hrs</th>
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<td>JOUR 415</td>
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<td>JOUR 512</td>
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Electives (15 credits, any university courses: Note general University restrictions below)

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Hour and GPA requirements

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<tr>
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<tbody>
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ATMOSPHERIC SCIENCE AND GEOGRAPHY COURSES

The Department of Geography offers a broad undergraduate curriculum as well as intensive graduate training. Students can obtain instruction in the areas of regional, physical, and cultural geography and atmospheric sciences (separate course list). Emphasis is also placed on techniques and methodology, including the areas of cartography, GIS, remote sensing, and quantitative methods. Inter-disciplinary research is encouraged.

Atmospheric Science Courses

ATMO 105 Introductory Meteorology. (5)
A lecture and laboratory course introducing students to the atmosphere, weather and climate phenomena, and their controlling physical processes. Topics covered include: the structure of the atmosphere, energy and energy budgets, climate and climate change, air pollution, clouds and precipitation, pressure and wind systems, severe weather, and weather forecasting.

ATMO 106 Introductory Meteorology, Honors (5)
Honors version of ATMO 105. A lecture and laboratory course introducing students to the atmosphere, weather and climate phenomena, and their controlling physical processes. Topics covered include: the structure of the atmosphere, energy and energy budgets, climate and climate change, air pollution, clouds and precipitation, pressure and wind systems, severe weather, and weather forecasting. 

Prerequisite: membership in University Honors Program or by permission of instructor.

ATMO 220 Unusual Weather. (3)
An introductory lecture course which surveys the general principles and techniques of atmospheric science and illustrates their application through discussions of natural but unusual weather phenomena such as blizzards, hurricanes, tornados, and chinooks, of the effects of air pollution on weather, and of intentional human alteration of the atmosphere.

ATMO 310 Aviation Meteorology. (3)
This course will introduce students to meteorological events that affect aircraft operations. It will discuss aviation applications of meteorological observations including satellite and radar observations. Students will learn about graphical displays of meteorological information. Numerical forecasting models and how their output is applied for aviation will be considered. Forecasting of weather events of particular interest to aviation such as ceiling, visibility, icing and turbulence will be emphasized.

Prerequisite: ATMO 105 or AE 245 or equivalent.

ATMO 321 Climate and Climate Change. (3)
Same as GEOG 321
This course is designed to introduce students to the nature of the Earth’s physical climate. It will introduce the basic scientific concepts underlying our understanding of our climate system. Particular emphasis is placed on energy and water balances and their roles in evaluating climate change. The course also evaluates the impact of climate on living organisms and the human environment. Finally, past climates are discussed and potential future climate change and its impact on humans is evaluated.

Prerequisite: GEOG 104 or ATMO 105.

ATMO 499 Honors Course in Atmospheric Science. (2-3)
Open to students with nine hours of upper level credit in Atmospheric Science, an average of at least 3.5 in all Atmospheric Science courses, and an overall average of at least 3.25. Includes the preparation of an honors paper and its defense before a committee of at least two regular faculty members.

ATMO 505 Weather Forecasting. (3)
A first course in synoptic meteorology designed to introduce students to weather analysis and forecasting through the application of hydrodynamic and thermodynamic principles to operational analysis and forecasting. Topics include: analysis and interpretation of surface and upper-air observations and data from satellites, radars, and wind profilers; chart and sounding analysis; and three-dimensional, conceptual models of weather systems. The course includes student-led weather briefings and analysis exercises.

Prerequisite: ATMO 105; one other atmospheric science or computer science course; MATH 121.

ATMO 506 Forecasting Models and Methods (3)
Introduction to basic numerical weather prediction methods. Computer programs are used to apply numerical methods to weather data and to evaluate dynamical processes on numerical grids. Meteorological graphics packages are used to analyze current weather data and numerical model output. Current operational numerical models and output products are discussed.

Prerequisite: ATMO 505, Math 122, and EECS 138 or EECS 168.

ATMO 515 Energy and Water Balance (3)
A study of the distribution and circulation of water in the air-earth system as influenced by atmospheric processes and surface conditions. The solar and terrestrial radiation budget and the water balance at the earth’s surface will be applied to agricultural and urban energy and water problems.

Prerequisite: ATMO 105 or EECS 138.

ATMO 521 Microclimatology. (3)
Same as GEOG 521
A study of climatic environments near the earth-atmosphere interface. The course considers rural climates in relationship to agriculture and urban climates as influenced by air pollution and other factors. Emphasis is on physical processes in the lower atmosphere, distribution of atmospheric variables, the surface energy budget and water balance.

Prerequisite: ATMO 105 and Math 106 or Math 121.

ATMO 525 Air Pollution Meteorology (3)
A study of background levels and concentrated sources of atmospheric pollution together with considerations of pollution buildup in urban areas as related to particular weather conditions. Inadvertent weather modifications and effects of atmospheric pollution on particular weather events and general climate will be discussed.

Prerequisite: ATMO 105, MATH 121, and EECS 138.

ATMO 531 Topics in Atmospheric Science: ________ (1-3)
An investigation of special topics in atmospheric science. May include topics in dynamic, physical or synoptic meteorology or climatology as well as related topics in earth and physical sciences. May be repeated if topic differs.

ATMO 605 Operational Forecasting (2)
Students enhance their forecasting expertise by preparing forecasts for presentation to the public through a variety of media. Classroom activities include weekly map discussions and analysis of current weather situations. Forecasting topics such as forecast verification, aviation forecast products, severe weather, flash floods and watches and warnings are examined. Credit for ATMO 605, ATMO 606, and ATMO 607 is limited to a total of eight hours, six of which may be counted toward a degree in atmospheric science.

Prerequisites: ATMO 505.

ATMO 606 Forecasting Practicum – Private Industry (2)
Practical experience in private industry working with current and/or archived meteorological data. Possibilities include the preparation of forecasts for TV stations and meteorological consulting firms, and working with environmental consulting firms to assess air pollution hazards. May be repeated two times for credit. Credit for ATMO 605, 606, and 607 is limited to a total of eight hours, six of which may be counted toward a degree in Atmospheric Science.

Prerequisite: ATMO 605.
ATMO 607 Forecasting Intern – National Weather Service (2)
Practical experience working in a National Weather Service forecasting center in analyzing weather data and preparing weather forecasts. May be repeated two times for credit. Credit for ATMO 605, 606, and 607 is limited to a total of eight hours, six of which may be counted toward a degree in Atmospheric Science. Prerequisite: ATMO 605.

ATMO 630 Synoptic Meteorology (3)
Interpretation, development, and analysis of synoptic charts. Prerequisite: ATMO 505 and ATMO 640.

ATMO 634 Physical Climatology (3)
Atmospheric processes are described and discussed in relation to the climate of the earth’s surface. Such topics as the greenhouse effect, ozone depletion, and the effect of solar irradiance on climatic change will be included. The physical processes and relationships between various climatic features will be studied. Prerequisites: ATMO 505 and DSCI 301 or MATH 526.

ATMO 640 Dynamic Meteorology (3)
This course introduces the student to the fundamentals of fluid dynamics necessary for understanding large scale atmospheric motions. Fundamental physical laws of conservation of mass, momentum and energy are examined and applied to atmospheric flows. Rotation in the atmosphere is examined quantitatively in terms of both circulation and vorticity. Prerequisite: MATH 223, PHSX 212, Prerequisite or corequisite of ATMO 505.

ATMO 642 Remote Sensing (3)
This course is designed to prepare students to effectively use remotely sensed data in operational or research settings for further work in this field. Topics include radiation and radiation transfer applied to active and remote sensing; radiative properties of space, sun, earth and atmosphere; instrument design considerations and operational characteristics; inversion methods for temperature or concentration profiling; surface temperature measurement; cloud top height determination; rain rate and wind velocity measurement; severe weather detection; satellite photograph interpretation. Prerequisite: ATMO 680, MATH 581.

ATMO 650 Advanced Synoptic Meteorology (3)
Analysis and interpretation of synoptic weather charts including treatment of numerical weather forecasting. Prerequisite: ATMO 630 and ATMO 660.

ATMO 660 Advanced Dynamic Meteorology (3)
Advanced study of the atmosphere including treatment of the vorticity equation. Prerequisite: ATMO 630, ATMO 640, MATH 123, and PHSX 211.

ATMO 680 Physical Meteorology (3)
This course is designed to enhance the student's understanding of atmospheric processes through the study of these processes at molecular through micro scales. Topics include the properties and behavior of gases; transfer processes; phase change; solar and earth radiation; cloud drop, ice crystal and precipitation formation; atmospheric electricity; stratospheric chemistry. Prerequisite: MATH 223, PHSX 212.

ATMO 690 Special Problems (1-3)
This course provides the student with an opportunity for independent work in meteorology beyond the content of the regularly-scheduled courses. Done under the guidance of a faculty member, the problem should be of mutual interest to the student and the faculty member; the nature of the work should be carefully discussed by both before enrollment. Prerequisite: Nine credit hours in meteorology.

ATMO 697 Seminar for Seniors (1)
Current research in atmospheric science will be discussed. May be repeated for a total of two credit hours. Prerequisite: Senior level in Atmospheric Science.

ATMO 699 Undergraduate Problems (2)
Prerequisite: Twelve credit hours in meteorology.

ATMO 710 Atmospheric Dynamics (3)
Presentation of contemporary approaches to the study of atmospheric dynamics. May include methodologies that provide insight into global, synoptic, mesoscale and microscale motions. Prerequisite: ATMO 660 or equivalent.

ATMO 720 Atmospheric Modeling (3)
Illustration and application of contemporary approaches to mathematical and statistical description of atmospheric phenomena. Prerequisite: MATH 122, ATMO 640, ATMO 680, and a course in statistics, or consent of instructor.

ATMO 727 Atmospheric Storms (3)
The physical processes and operating principles involved in the development and life cycles of extreme or unusual weather events including tornadoes, blizzards, lightning displays, and tropical storms. Prerequisite: E ECS 138, MATH 121, and ATMO 320.

ATMO 731 Advanced Topics in Atmospheric Science (1-3)
Advanced investigation of special topics in atmospheric science. May include topics in dynamic, physical or synoptic meteorology or climatology as well as related topics in earth and physical sciences. May be repeated if topic differs.

ATMO 750 Numerical Weather Prediction (3)
An exploration of the mathematical methods used to describe the current state of the atmosphere and to predict future states. Current operational numerical weather prediction techniques will be included. Prerequisite: ATMO 660.

Geography Courses

GEOG 100 World Regional Geography (3)
An introductory survey of the environmental setting, historical formative periods, and present-day issues that distinguish the major culture areas of the world.

GEOG 101 World Regional Geography, Honors (3)
An introductory survey of the environmental setting, historical formative periods, and present-day issues that distinguish the major culture areas of the world. Prerequisite: Open only to students in the College Honors Program or by consent of instructor.

GEOG 102 Principles of Human Geography (3)
An examination of the relationships between humans and their environments. The course introduces students to basic concepts in human geography relating to economic activities, landscapes, languages, migrations, nations, regions, and religions. Serves as the basis for further course work in cultural, economic, political, population, and urban geography.

GEOG 103 Principles of Human Geography, Honors (3)
An introduction to how human societies organize space and modify the world about them. Resultant patterns on the landscape are interpreted through principles of space perception, cultural ecology, diffusion, land use, and location theory. Comparisons are made between urban and rural areas and between subsistence and commercial societies. Prerequisite: Open only to students in the College Honors Program or by consent of instructor.

GEOG 104 Principles of Physical Geography (3)
The components of the physical environment are discussed in order to familiarize the student with their distributions and dynamic nature. Major topics include the atmosphere, landforms,
soils and vegetation together with their interrelationships and their relevance to human activity. This course and Geography 105 together satisfy the laboratory science requirement.

GEOG 105 Introductory Laboratory in Physical Geography. (2)
A laboratory course designed to complement Geography 104 in satisfying the laboratory science requirement. It is required for geography majors. Laboratory exercises include a wide variety of analyses using data on the atmosphere, hydrosphere, biosphere and lithosphere. Prerequisite: GEOG 104 which may be taken concurrently.

GEOG 107 Principles of Physical Geography, Honors (3)
Interactive processes among the systems of the earth are studied and discussed. Major topics include vegetation, soils, landforms, water, the atmosphere, and cycles of matter between these portions of the earth. The course includes lectures and critical discussions to address study problems in physical geography. Prerequisite: Open only to students in the College Honors Program or by consent of instructor.

GEOG 111 Maps and Mapping. (4)
How do people find their way to there or just around? Simple--they use maps. Maybe not maps on pieces of paper but instead in their heads: mental maps. Different people have different maps, even of the same place. Mapping is an ancient form of communication that has created ideas and opinions, promoted understanding and confusion. A non-technical approach to the transformation of space onto maps, their content and structure, and to their role and impact in human activity, past and present. Neither background in geography nor artistic skills are required.

GEOG 148 Scientific Principles of Environmental Studies. (3)
Same as EVRN 148
This course presents an overview of our understanding of environmental processes and environmental issues. Topics include scientific principles, population and resource issues, pollution and global change, and land use and management. This course gives students a rigorous understanding of interactions between humans and their environment, and provides students with a scientific basis for making informed environmental decisions.

GEOG 149 Scientific Principles of Environmental Studies, Honors. (3)
Same as EVRN 149
This course presents an overview of our understanding of environmental processes and environmental issues. Topics include scientific principles, population and resource issues, pollution and global change, and land use and management. This course gives students a rigorous understanding of interactions between humans and their environment, and provides students with a scientific basis for making informed environmental decisions. Prerequisite: Open only to students in the College Honors Program or by consent of instructor.

GEOG 150 Environment and Society. (3)
Same as EVRN 150
An introduction to geographic approaches to the study of the environment, emphasizing societal and cultural factors that influence human interaction with the biosphere, hydrosphere, lithosphere, and atmosphere. The course involves analysis of a broad range of contemporary environmental issues from the local to global scales.

GEOG 210 Computers, Maps and Geographic Analysis. (3)
This course will introduce students to a number of different methods for the visualization, representation and analysis of geographical phenomena. Both field and computer-based techniques will be employed to demonstrate the concept of experimental design and the collection, processing, and analysis of geographical data. Topics include: 1) the unique nature of geographic data; 2) mapping techniques and technologies; 3) geographical information systems; 4) remote sensing (aerial photography and satellite imagery); and 5) methods of geographical analysis (e.g., statistic and spatial modeling).

GEOG 304 Environmental Conservation. (3)
Same as EVRN 304
A survey of current methods of describing and modeling the function, structure and productivity of natural and anthropogenically modified earth resource systems, along with a discussion of contemporary views of what constitutes a natural landscape. Fundamental natural science principles about the interplay among lithospheric, atmospheric, hydrospheric, and biospheric components of earth systems are emphasized. Uses of natural resources, including fossil fuels, minerals, and water are described with attention to the earth’s total energy budget. Human activities that affect preservation, conservation, and multiple uses of earth regions receive attention. Systems under stress through population and other contemporary forces serve as examples.

GEOG 311 Map Conception and Development. (4)
An examination of the map production process with emphasis on two areas: the mental map formed during interaction with the environment, and the map as a physical object, which emerges from mapping activity. A local area will serve as the laboratory/environment for the mapping activity including production and use.

GEOG 316 Methods of Analyzing Geographical Data. (4)
Introduces the benefits and limitations of using quantitative methods to analyze geographical problems. Covers traditional descriptive (e.g., measures of central tendency) and inferential statistics (e.g., hypothesis testing), but also inherently geographical approaches such as shape and point pattern analysis, and spatial autocorrelation. Laboratory emphasizes using the computer to explore and analyze geographical problems.

GEOG 319 Topics in Techniques: ________________. (1-3)
An investigation of special topics in Techniques. May include coursework in cartography, GIS, or remote sensing. May be repeated if topic differs.

GEOG 321 Climate and Climate Change. (3)
Same as ATMO 321
This course is designed to introduce students to the nature of the Earth’s physical climate. It will introduce the basic scientific concepts underlying our understanding of our climate system. Particular emphasis will be placed on energy and water balances and their roles in evaluating climate change. The course will also evaluate the impact of climate on living organisms and the human environment. Finally, past climates will be discussed and potential future climate change and its impact on humans will be evaluated. Prerequisite: GEOG 104 or ATMO 105.

GEOG 331 Regional Geomorphology of the United States. (3)
This course examines forces and processes affecting the earth’s surface, and furthermore identifies and describes the physiographic regions that are the result of these processes. Special efforts are made to explore various photographic resources, satellite imagery, and internet sources of geomorphic data from a regional perspective since there is no wholly satisfactory text available for the course. A research paper is required. Prerequisite: An introductory earth science course or consent of the instructor.

GEOG 332 Glaciers and Landscape. (3)
Elements from glaciology, geology, and climatology are merged to examine the interactions between glaciers and their natural environments, including the processes involved in glacier formation, the relationship between glaciers and climate, the mechanisms of glacier flow, and interpretation of the Earth’s glacial record. Emphasis is placed on an interdisciplinary approach to study environmental change and paleoclimate reconstruction.
GEOG 335 Introduction to Soil Geography. (4)
This course focuses on the properties and processes of soils as they occur in their environment. The student is introduced to the nature of soil as it functions as a body; genesis of soils; properties of soil solids especially colloids; soil chemical composition, properties, and reactions; interaction between solid, liquid, and gaseous components in soils; plant-soil-water relationships; biological interactions with soil; classification of soils; and the distribution of soils on the landscape. Laboratory section is required.
Prerequisite: GEOG 104, GEOL 101, or consent of instructor.

GEOG 338 Introduction to River Systems. (3)
A course on fluvial geomorphology. Topics include the drainage basin, fluvial processes, river channel adjustment and forms, human disturbance and geomorphic response, and research methods in fluvial geomorphology. Field trip. Prerequisite: GEOG 104.

GEOG 339 Topics in Physical Geography: . (1-3)
An investigation of special topics in Physical Geography. May include coursework under headings of soils, vegetation, climate, or geomorphology. May be repeated if topic differs.

GEOG 350 Physical Geography of Africa. (3)
Same as AFS 350
This course is a survey of the basic physical features of the African continent including structure and relief, rivers and lakes, soils and mineral resources. It includes characteristics and processes of African climates, and the ecology of Africa's major biomes: tropical rain forest, savanna, steppe, and desert. Climatic and environmental variations of the past, emergence of humankind, and development of pastoral and farming systems are discussed. Contemporary environmental concerns also include deforestation and desertification, the impacts of drought, methods for monitoring African environments, and Africa's prospects in a 21st century suffering from global warming.

GEOG 351 Africa's Human Geographies. (3)
Same as AAAS 351
An introduction to historical, cultural, social, political, and economic issues in Africa from a geographic perspective. The course begins with the historical geography of humanity in Africa, from ancient times through the present. Other topics include cultural dynamics, demography, health, rural development, urbanization, gender issues, and political geography. Case studies from Eastern and Southern Africa will be used to illustrate major themes.

GEOG 352 Economic Geography. (3)
This course offers an overview of contemporary economic geography with an underlying theme of uneven regional development. Topics examined include: the historical context in which capitalism emerged; the major theoretical approaches used to understand the temporal and spatial dynamics of capitalist society; a series of case studies of different economic sectors; and the global economy, including its development with respect to colonialism, neocolonialism, international trade, third world development, and population growth.

GEOG 357 History and Philosophy of Geographic Information Science (3). An examination of the development of geographic information science (GISc) from its roots in traditional geography, cartography, and remote sensing to modern geographic information systems (GIS). GIS will be explored as a new scientific instrument, a “macroscope,” for representing and analyzing complex earth processes, both physical and cultural. The societal benefits and risks of GIS will be demonstrated and discussed.

GEOG 358 Principles of Geographic Information Systems. (4)
An introduction to computer-based analysis of spatial data. Covers basic principles of collecting, storing, analyzing and displaying spatial data. Emphasis is on problem-solving activities using common spatial analytical techniques (e.g., map overlay). The student will gain extensive hands-on experience with state-of-the-art GIS software.

GEOG 370 Introduction to Cultural Geography. (3)
Charts some of the major lines of research in cultural geography, including critical theory, political economy, poststructuralist thought, feminism, and global consumption. Through fieldwork, diverse research methods are applied to issues such as community development, cultural patterns on the landscape and global impacts on local economies.
Prerequisite: GEOG 100, 101, 102 or 103; or consent of instructor.

GEOG 371 Environmental Geopolitics. (3)
This course is structured by a framework of geopolitics and critical geopolitics. We will engage with literature that demonstrates critical thinking about how human relationships with the biophysical world are portrayed and politicized. We will examine key contributions to the environmental security, resource conflicts, and related literatures. We will discuss how and why the environment is featured in debates about security and conflict as well as geopolitical assumptions on which these debates build. Learning objectives for this course include: 1) develop and apply, in writing and in discussion, critical thinking skills with particular attention to geopolitical interests, 2) develop and demonstrate an understanding of key debates about environment and security, resource conflicts, and the construction of environmental fears, 3) develop and demonstrate an ability to identify and discuss how themes in the course are evident in mainstream media and public debate.

GEOG 375 Intermediate human Geography. (3)
An examination of processes of cultural-economic interaction and patterns of human activity on a global scale. The topics cover the whole spectrum of human geography, with focus on urban-economic development, innovation and diffusion, and trade. Each week the third hour will be devoted to discussion of topics dealt with in lectures presented during the first two hours.
Prerequisite: Introductory course in Geography or consent of the instructor.

GEOG 377 Urban Geography. (3)
This course explores the city from the multiple perspectives of its inhabitants. The cultural viewpoints of place, gender, age, and ethnicity are stressed, but traditional economic topics such as urban hierarchy, functions of the city, suburbanization, and ongoing changes in core and peripheral areas also receive attention. The distinctive landscapes of individual North American cities are emphasized, but examples also are drawn from throughout the world.

GEOG 379 Topics in Cultural Geography: . (1-3)
An investigation of special topics in Cultural Geography. May include coursework under headings of culture theory, material culture, language, foodways, or religion. May be repeated if topic differs.

GEOG 390 Geography of the United States and Canada. (3)
Same as AM S 390
A study of the different physical, economic, and cultural settings in the United States and Canada which form the basis for the various forms of livelihood. Emphasis is on the United States.
Prerequisite: An introductory geography course or background in United States or Canadian history, social science, or culture or consent of the instructor.

GEOG 395 Environmental Issues of: . (3)
This regional geography course examines contemporary environmental issues of a particular region of the world based on the expertise of the professor. Course emphasis is on the interaction of natural, socio-economic, and cultural factors of
development that give rise to environmental problems. Students learn how local, national, and international government and non-governmental stakeholders address environmental problems. Course may be repeated with different professors.

GEOG 396 China’s Geographies. (3) An appreciation of how China and the Chinese way of life has evolved. Confucianism, Buddhism, Taoism, and communism are examined as the bases of Chinese culture values. These values are then set against a highly varied physical and economic landscape to show how an elaborate and complex society has come into being. Contemporary developments are discussed only as a part of the entire spectrum of Chinese history.

GEOG 397 Geography of Kansas and the Plains. (3) A study of the different physical, economic, and cultural settings in Kansas and the Plains that form the basis for various kinds of livelihood.

GEOG 399 Topics in Regional Geography: _________. (1-3) An investigation of special topics in Regional Studies. May include coursework related to a specific country or region. May be repeated if topic differs.

GEOG 410 Human Biogeography, Honors (3) N Same as BIOL 410 Natural science principles of evolution and earth change are used to examine distributions of the populations, economies, and resource use of humans. Lecture and discussion. Prerequisites: BIOL 152 or 153 or GEOG 107 and membership in the University Honors Program, or consent of the instructor.

GEOG 418 Workshop in Production Cartography. (1-3) Theory and practice of map production and other related graphics using the latest graphic and GIS software. Projects vary but include the processes of design and production, editing and quality control, and a final printed or operational product. Involves a weekly consultation session and laboratory time in KU Cartographic & GIS Services. Prerequisite: Completion of GEOG 311 with a grade of B or better and consent of instructor.

GEOG 433 Biogeography Field and Laboratory Techniques (3) Same as EVRN 433 This course provides undergraduate students with practical experience in field data collection techniques and laboratory data analysis methods. During the first half of the semester, students will work in the field using a variety of methods to measure such vegetation characteristics as: cover, density, biomass, leaf area, and canopy architecture. Students will gain experience in the use of field instruments including a spectroradiometer, and techniques for quantifying vegetation biophysical attributes. During the later part of the course, students will learn to summarize their field data and examine relationships between the vegetation attributes and measurements made using remote sensing instruments. Recommended: Geog 316 or an introductory statistics equivalent.

GEOG 458 Geographical Information Systems: _________. (1-6) An introduction to the organization and components of geographic information systems and their software. Fundamental concepts and their implementation with applications to physical and human systems.

GEOG 490 Geographic Internship. (1-6) Supervised practical experience. The student submits a proposal describing the internship prior to enrollment. Upon acceptance, regularly scheduled meetings with the advisor provide assistance, guidance and evaluation of progress in the professional experience. A written summary of the experience or outcomes of the research project are prepared independently by the student, a representative of the host agency, and the advisor. Total credit not to exceed six hours (typically 80 work hours equate to one academic credit hour) Prerequisite: 15 hours of geography and permission of instructor.

GEOG 498 Special Topics in Geography. (1-5) Prerequisite: 15 hours of geography.

GEOG 499 Honors Course in Geography. (2-3) Open to students with nine hours of upperclass credit in geography, an average of at least 3.5 in all geography courses and a general average of at least 3.25. Includes the preparation of an honors paper and its defense before a committee of at least 2 regular members.

GEOG 510 Human Factors. (4) Same as INDD 510 An introduction to the concepts and theories underlying the study of human-technological systems. Human-machine interfaces and system properties, and the environment are considered. Lecture-discussion sessions are supplemented by computer-supported laboratory and research activities.

GEOG 511 Intermediate Cartography: (Selected topic to be specified). (1-6) An investigation of special topics in cartography. Can be repeated for different topics. Prerequisite: A course in cartography and consent of the instructor.

GEOG 513 Cartographic Design. (3) A study of graphic elements and their role in the physical and perceptual structure of the map image. Concepts and principles of design are stressed with particular emphasis on the figure-ground relationships, color and lettering. Prerequisite: GEOG 311.

GEOG 514 Visualizing Spatial Data. (4) Students use Visual Basic or other currently prominent programming language to visualize spatial data. Early projects cover basic principles such as color manipulation and spatial transformations. Later projects involve developing more sophisticated software for data presentation, data exploration, and map animation. Prerequisite: Some experience with Visual Basic or other programming language.

GEOG 515 Behavioral Systems. (3) An introductory course in behavioral geography. Examines the development of spatial cognitions (acquisition, organization and use of environmental knowledge), and spatial patterns of behavior based on those cognitions at scales ranging from personal space to world views.

GEOG 516 Applied multivariate Analysis in Geography. (3) An introduction to the application of multivariate statistical analysis in geography. Techniques covered include univariate and multivariate analysis of variance, multiple regression, logistic regression, principle components analysis, and spatial regression. Practical applications of the techniques in a geographical research context are emphasized. Students will learn how to use statistical packages such as SPSS. Prerequisite: GEOG 316 or equivalent.

GEOG 517 Data Handling and Map Symbolization. (3) An analysis of methods for manipulating and symbolizing spatial data. Techniques studied include dot, choropleth, proportional symbol, and isarithmic (contour) mapping. Topics covered include data classification, and the use of color, and automated methods of interpolation (triangulation, inverse distance, and kriging). Emphasis is on developing maps that can be presented to the general public, although some consideration is given to visualization software that can be utilized by individuals to explore spatial data. Prerequisite: GEOG 111 or GEOG 210 or GEOG 311.

GEOG 519 History of Cartography. (3) Same as HIST 546 A history of mapmaking worldwide from its origins to the present
day; emphasis on maps as historical records of evolving civilizations and cultural landscapes; methods of studying early maps.

GEOG 521 Microclimatology. (3)
A study of climatic environments near the earth-atmosphere interface. Consideration of rural climates in relation to agriculture and urban climates as influenced by air pollution and other factors. Emphasis is on physical processes in the lower atmosphere, distribution of atmospheric variables, the surface energy budget and water balance.

Prerequisite: ATMO 105 and Math 106 or Math 121.

GEOG 526 Remote Sensing of Environment I. (4)
Same as EVRN 526
Introduction to study of the environment through air photos and satellite imagery, including principles of remote sensing, interactions of electromagnetic energy with the atmosphere and earth's surface, aerial photography, satellite systems, and sensors (electro-optical, thermal, and radar). Emphasis in the latter part of the course is on such applications as global monitoring, land cover mapping, forestry, agriculture, and oceanography. Laboratory emphasizes visual interpretation of aerial photography and satellite imagery and an introduction to digital image processing in the department's NASA Earth Science Remote Sensing Laboratory.

Prerequisite: basic algebra. GEOG 358 recommended.

GEOG 531 Topics in Physical Geography. (1-3)
An investigation of special topics in physical geography. May include specific coursework under the headings of geomorphology, climatology, soils, vegetation, quaternary, paleoenvironments, hydrology, etc. May be repeated if topic differs.

GEOG 532 Geocoeology. (3)
Same as ANTH 517
Application of the concepts and methods of the geosciences to interpretation of the archaeological record. The course will focus primarily on the field aspects of geocoeology (e.g., stratigraphy, site formation processes, and landscape reconstruction), and to a lesser extent on the array of laboratory approaches available.

Prerequisite: GEOG 104, ANTH 110, or 310.

GEOG 535 Soil Geography. (4)
A broad study of the principles and properties of soils and their distribution on the landscape. Topics covered include: pedology, clay mineralogy, soil physics, soil chemistry, management of soils, soil biology, taxonomy, and soil geomorphology. Laboratory section and a field project are required. Not open to students who have taken GEOG 335.

Prerequisite: GEOG 104 or GEOL 101 or consent of the instructor; BIOL 104 and CHEM 184 or 185 recommended.

GEOG 536 Landscape Ecology. (3)
Landscape ecology is the study of spatial variation in landscapes at a variety of scales. It includes the biophysical and societal causes and consequences of landscape heterogeneity, linking natural sciences with related human disciplines. Its core themes address the spatial pattern of landscapes; relationships between pattern and process in landscapes; relationships between human activity and landscape pattern, process and change; and the effect of disturbances on the landscape.

Prerequisite: GEOG 104 or GEOG 148 or EVRN 148, or consent of instructor.

GEOG 537 Elements of Plant Geography. (3)
An introduction to spatial and temporal variation in natural plant populations and communities. Included is an introduction to methods of analysis and an overview of structure and process in the earth's major biomes.

Prerequisite: GEOG 331, or an introductory biology/botany course and GEOG 104; or consent of instructor.

GEOG 538 Environmental Soil Physics and Chemistry. (4)
This course examines the physical and chemical properties of soils and methods of evaluation. Physical topics include the movement of water, heat, gases, and solutes through soil. Chemistry topics include solid and solution speciation, mineral solubility, ion exchange, and oxidation-reduction reactions in soils.

Prerequisites: GEOG 335 or 535, CHEM 188 or 189, MATH 121, PHSX 114, or consent of the instructor.

GEOG 541 Geomorphology. (4)
Same as GEOL 541
A critical study of landforms in relation to tectonics, climatic environment, and geologic processes. The use of geomorphic methods in the interpretation of Cenozoic history is emphasized. Laboratory exercises in analysis of field observations, maps, and photographs. Required field trip and fee.

Prerequisite: GEOG 101 or GEOG 104 or 304.

GEOG 550 Environmental Issues in Africa. (3)
Same as AFS 551
Acquaints students with the complexities of debates on environmental problems in Sub-Saharan Africa. Topics addressed may include deforestation, desert expansion, wildlife conservation, soil erosion, climate change, coral reef destruction, water resources development, mangrove preservation, and the environmental effects of war, industrialization, and urbanization. Class presentations and projects synthesize the perspectives of both human and physical geography.

Prerequisite: GEOG 104 or permission of the instructor.

GEOG 551 Intermediate Economic Geography. (3)
A lecture course dealing with the principles of location theory, resource utilization and regional specialization of economic activities. Economic concepts, such as rent payment for agricultural and mineral resources, scale and agglomeration economies, etc., are applied to various physical, demographic and cultural settings of major world regions. Special emphasis is placed on the basic principles of and recent changes in patterns of world trade, international investment, and economic development. Prerequisite: GEOG 375 or introductory economics or consent of instructor.

GEOG 552 Topics in Urban/Economic Geography. (3)
(Selected topic to be specified). (1-3)
An investigation of special topics in urban/economic geography. May include specific coursework under the headings of energy, economic development, international trade, environmental perception, housing, transportation, and migration. May be repeated if topic differs.

GEOG 553 Geography of African Development. (3)
Same as AFS 553
Acquaints students with the values and social parameters of African agricultural and pastoral practice. Topics include customary land rights, African perspectives on the natural world, gender issues in African agriculture, and the urbanization of African cultures. The course also contrasts African views with those of Western development practitioners and donor agencies. Case studies from different countries are used to highlight the continent's regional differences.

GEOG 556 Geography of the Energy Crisis. (3)
A discussion and analysis of the basic facts and causes of energy problems on a national and world scale. Examines current production, consumption, efficiency, reserves, conservation and other energy policy options, including adjustments that will affect consumer use, national politics and strategic issues.

Prerequisites: GEOG 102 or 375.

GEOG 557 Cities and Development. (3)
Same as AAS 557
An intermediate level course in urban geography, with an emphasis on cities in the developing world. Example cities in Latin America and the Caribbean, Sub-Saharan Africa, the
Middle East, South Asia, and/or Southeast Asia may be examined. The main focus is on the intersection between urbanization and economic development, but social, political, and cultural aspects of development in cities are considered. Other topics include the geographical impacts of European colonialism, urbanization and industrialization, rural-to-urban migration, urban structure and spatial dynamics, urban planning and environmental sustainability.

GEOG 558 Intermediate Geographical Information Systems (4)

An intermediate level course in geographic information science designed for advanced undergraduate and graduate level students who already have an introductory understanding of GIS. Emphasis will be placed on the application of spatial analytical techniques to geographical problem-solving. Topics include spatial data structures, interpolation techniques, terrain analysis, cost surfaces and database management techniques. Students will apply knowledge gained in lecture and reading to natural resource, urban, and scientific applications using state-of-the-art GIS software.

Prerequisite: GEOG 358 or consent of instructor.

GEOG 560 GIS Application Programming. (3)

This course teaches programming within Geographic Information Systems. Students will learn how to customize GIS applications to automate data processing and spatial analysis through programming languages. GIS programming concepts and methods will be introduced from the aspects of spatial data management and analysis covering both vector and raster data models.

Prerequisite: GEOG 558 and a course in programming languages.

GEOG 570 Geography of American Indians. (3)

A survey of the culture and history of selected indigenous peoples of the Americas. Emphasis is placed on the environmental setting, the settlement and subsistence patterns, and the impact of European colonization. Discussion includes present-day ethnic and resource issues.

GEOG 571 Topics in Cultural Geography. (1-3)

An investigation of special topics in cultural geography. May include specific coursework under the headings of cultural theory and methodology, material culture, foodways, religion, and similar topics. May be repeated if topic differs.

GEOG 572 Political Geography. (3)

Acquaints students with the theories and methods of political geography. Topics include geographical studies of: states, nations, and nationalism; territories and territoriality; geopolitics; and elections. Case studies from various regions of the world to be included, with an emphasis on the developing world.

Prerequisite: GEOG 102 or consent of instructor.

GEOG 573 Advanced Geographic Analysis. (3)

A course designed to teach students how to define, gather, process, evaluate and present geographic research. Its emphasis is field work and original data gathering versus library research.

Prerequisite: previous coursework in geography and/or consent of the instructor.

GEOG 575 Geography of Population. (3)

Describes and analyzes the distribution of human populations and spatial relations among and within varying types of settlements.

Prerequisite: GEOG 102 or 375.

GEOG 576 Cultural Geography of the United States. (3)

Same as AMS 576

Distributions of major culture elements including folk architecture, religion, dialect, foodways, and political behavior are systematically studied from a predominately historical perspective. These discussions are followed by a survey of the major culture regions in America.

Prerequisites: Although not absolutely necessary, familiarity with concepts treated in any of the following courses would be helpful: AMS 100, 110, ANTH 108, 308, GEOG 102, 390.

GEOG 579 Geography of American Foodways. (3)

An interdisciplinary approach to food that explores the diversity of eating habits across the United States and the role of food as an indicator of cultural identity and change. Current regional and ethnic food consumption patterns are stressed. Topics include multi-culturalism and regional identity, the symbiotic relationship between restaurant food and home cooking, the recent interest in farmers’ markets and organic foods, and the importance of the food industry and the popular press in setting trends.

GEOG 591 Geography of Latin America. (3)

A study of the different physical, economic, and cultural settings in Latin America which form the basis for the various forms of livelihood.

GEOG 592 Middle American Geography. (3)

This regional study of the natural environments and cultural-historical backgrounds of Mexico, Central America, and the Caribbean details the physical and historical processes that have shaped the cultural landscape.

GEOG 593 Central American Peoples and Lands. (3)

This is a study of the natural and cultural history of the region’s lands and peoples that focuses on the cultural geography of the surviving indigenous populations, including their culture area, culture history, cultural landscape, and cultural ecology.

GEOG 594 Geography of the Former Soviet Union. (3)

An analysis of the spatial organization of the successor states to the USSR. A study of the diverse human and natural resources, demographic, cultural an economic conditions.

Prerequisite: An introductory geography course or background in Russian-East European history, social science, or culture or consent of instructor.

GEOG 595 Geography of Eastern Europe. (3)

A study of nations and regions of Eastern Europe, excluding Russia. Prerequisite: An introductory geography course or background in Slavic-East European history, social science, or culture or consent of the instructor.

GEOG 596 Geography of China. (3)

A detailed description and analysis of geographic patterns in both historic and modern China.

Prerequisite: An introductory geography course or background in Chinese history, social science, or culture or consent of the instructor.

GEOG 597 Geography of Brazil. (3)

Study of geographic factors, physical and cultural, that are basic to understanding the historical development of Portuguese South America and the contemporary and cultural geography of Brazil. Course also includes a survey of Brazil’s South American neighbors.

GEOG 601 Indigenous Peoples of the World. (3)

Same as GINS 601

A survey of the native peoples of the world at the time of contact with Europeans. Includes an overview of various Indigenous cultures. A few detailed studies of selected groups are used to explore environmental settings, settlements and subsistence patterns, and the world view of the Western Hemisphere’s Indigenous societies.

Prerequisite: Permission of Instructor.

GEOG 657 Geographic Models. (3)

Examination of several methodologies and specific techniques from geographical and operations research having proven applicability to public facility location decisions. The course emphasizes "hands-on" student experience with canned computer programs and real world problems.

Prerequisite: An introductory course in urban planning or
transportation geography or urban geography or consent of the instructor.

GEOG 658  Topics in Geographic Information Science: __________.  (1-6)
An investigation of special topics in geographic information science. May include specific coursework under the headings of methodology, basic research, thematic or regional applications, geographic information systems (GIS), Global Positioning System (GPS), and geostatistics. May be repeated if topic differs.
Prerequisite: Vary by topic.

GEOG 670  Cultural Ecology.  (3)
Same as ANTH 695
Investigation of the interrelations between socio-cultural systems and the natural environment, including a survey of major theories and descriptive studies.
Prerequisite: An introductory course in Geography or Anthropology.

GEOG 710  Information Design.  (3)
Concepts and principles for the organization of verbal, numerical and graphic/spatial data and their application to the production of information displays and instruments. Examination of the evolution of the information design process from the traditional (communication system) perspective to interactive user-centered design approaches. The nature of human information processing in handling information for both visualization and analysis, with particular emphasis on decision-making and usability.
Prerequisites: GEOG 510, INDD 510, PSYC 318, PSYC 685 or equivalent, or consent of the instructor.

GEOG 711  Advanced Cartography: __________.  (3)
An investigation of special topics in cartography. Can be repeated for different topics.
Prerequisite: Consent of the instructor.

GEOG 713  Practicum in Cartography.  (1-6)
Experience in the organization and presentation of cartographic material in lecture, discussion and laboratory formats. May be repeated to a total of six credits.
Prerequisite: Consent of the instructor.

GEOG 714  Field Experience.  (3)
Working in a new environment presents problems unlike those encountered in a classroom situation. Data collection techniques and exercises discussed in this off-campus course are intended to provide experience in dealing with an unfamiliar situation. Course location is dictated by the interests and composition of the student group; offered in the first three weeks of August. Geography majors are encouraged to attend. This course is required for graduate students. Fee required.
Prerequisites: Junior-Senior standing and 15 hours of geography or instructor's consent.

GEOG 716  Advanced Geostatistics.  (3)
An introduction to the practical application of advanced geo-spatial statistical techniques. Potential topics include: spatial regression, interpolation, clustering and advanced non-parametric statistics. Knowledge of a statistical package and GIS is assumed.
Prerequisite: GEOG 516 or equivalent and GEOG 358 or equivalent.

GEOG 719  Development of Geographic Thought.  (2-3)
Critical analysis of the growth of geographic thought from antiquity to the present: Emphasis is on the structure of modern geography.
Prerequisite: 20 hours of geography, or consent of the instructor.

GEOG 726  Remote Sensing of Environment II.  (4)
An overview of techniques for computer analysis of digital data from earth orbiting satellites for environmental applications. Topics covered include: data formats, image enhancements and analysis, classification, thematic mapping, and environmental change detection. The laboratory exercises provide hands-on experience in computer digital image processing in the department’s NASA Earth Science Remote Sensing Laboratory.
Prerequisite: Introductory statistics and GEOG 526 or equivalent.

GEOG 731  Topics in Physical Geography: __________.  (1-3)
An investigation of special topics in physical geography. May include specific coursework under the headings of geomorphology, climatology, soils, vegetation, quaternary, paleoenvironments, hydrology, etc. May be repeated if topic differs.

GEOG 733  Advanced Biogeography Field and Laboratory Techniques.  (3)
This course provides graduate students with practical experience in field data collection techniques and laboratory data analysis methods. During the first half of the semester, students will work in the field using a variety of methods to measure such vegetation, characteristics as: cover, density, biomass, leaf area, and canopy architecture. Students will gain experience in the use of field instruments including a spectroradiometer, and techniques for quantifying vegetation biophysical attributes. The laboratory analyses component will include: data summary, data entry, correlation, regression, MANOVA, cluster analysis, and data display and reporting.
Prerequisites: GEOG 516 or multivariate statistics equivalent recommended.

GEOG 735  Soil Geomorphology.  (3)
Examines the interaction of pedogenic and geomorphic processes during the Quaternary with an emphasis on strategies and methodologies employed in soil-geomorphic studies. Group research projects incorporating field data collection and analyses are required.
Prerequisite: GEOG 335 or 535 or consent of the instructor.

GEOG 741  Advanced Geomorphology.  (1-3)
Same as GEOL 741
Detailed discussions of processes and landforms characteristic of specific environments. Considered during separate semesters will be general methodology, and fluvial, arid regions, glacial, and shoreline geomorphology. Course may be taken more than once.
Prerequisite: GEOG 541.

GEOG 749  Topics in Stable Isotopes in the Natural Sciences (2-3)
Same as BIOL 749
Isotopic compositions of substances provide powerful insights into many topics in the natural sciences. Applications of isotopic analyses of carbon, hydrogen, oxygen, and nitrogen to selected research topics such as plant resource use, food web analysis, paleoecology, paleodiet reconstruction, hydrology, and soils genesis will be examined.
Prerequisite: Knowledge of isotope chemistry is not required. (Concepts necessary to understand pertinent articles will be taught during the first class meetings.) May be repeated.

GEOG 751  Analysis of Regional Development.  (3)
An analytical approach to spatial organization of economic activities and aspects of growth and development. An emphasis is given to location theory and the geography of trade and migration. A research paper is required.
Prerequisite: GEOG 551, or a course in economics, or consent of the instructor.

GEOG 752  Topics in Urban/Economic Geography: __________.(Selected topic to be specified).  (1-3)
An investigation of special topics in urban/economic geography. May include specific coursework under the headings of energy, economic development, international trade, environmental perception, housing, transportation, and migration. May be repeated if topic differs.
GEOG 756  Energy Problems and the Economic-Physical Environment.  (2-3)
This course investigates the economic, social, political, and environmental conditions of energy production, transport and use: total energy consumption and mix, relations to the level and structure of the economy, substitutability of fuel and energy sources, resource endowment in an international setting.

Prerequisite: GEOG 551, or a course in economics, or consent of the instructor.

GEOG 758 Geographic Information Science. (4)
This course integrates topics in geographical information science (GISci) with spatial analytical techniques to solve spatial problems. Focuses on the most current research in GISci and its relevance to the environmental sciences, natural resource management, and spatial decision-making. Students are expected to apply the concepts and techniques learned in this class to their own research projects.

Prerequisites: GEOG 558 and GEOG 316, or consent of instructor.

GEOG 771 Topics in Cultural Geography: _________. (1-3)
An investigation of special topics in cultural geography. May include specific course methodology, material culture, foodways, religion, and similar topics. May be repeated if topic differs.

GEOG 772 Problems in Political Geography. (3)
Case studies of regional and national power settings with particular emphasis upon the geographical analysis of political developments in unstable areas of the world.

Prerequisites: GEOG 102 or GEOG 375.

GEOG 773 Humanistic Geography. (3)
A discussion and project-oriented course focused on ways of studying the character and meaning of places. Concepts examined include place image and image makers, landscapes as text, sense of place, vernacular regions, and alternate representations of space. Prerequisite: Graduate standing or fifteen hours of geography or consent of instructor.

GEOG 775 Proseminar in Population Geography. (3)
Evaluation of problem formulation, data gathering, research methods and substantive knowledge in the geography of human populations. Concurrent auditing of GEOG 575 plus an additional meeting each week is required.

Prerequisites: GEOG 575 and 516, and SOC 514.

GEOG 790 North American Regions: _________. (Selected areas to be specified). (3)
A detailed description and analysis of selected regions of North America.

Prerequisite: An introductory geography course or background in United States or Canadian history, social science, or culture or consent of the instructor.

GEOG 791 Latin American Regions: _________. (3)
A description and analysis of the principal sources of geographic information pertaining to portions or all of Latin America.

Prerequisite: GEOG 591, or concurrent auditing of 591, or consent of the instructor.

GEOG 794 Regions of the former USSR. (3)
A description and analysis of geographic data pertaining to the successor states of the USSR.

Prerequisite: Fifteen hours of Geography courses or background in Russian, East European or Middle East studies, or consent of the instructor.

GEOG 795 European Regions: _________. (3)
Prerequisite: Fifteen hours in Geography, background in specified region, or consent of instructor.

GEOG 796 Asian Regions: _________. (2-3)
Prerequisite: Fifteen hours in Geography, background in Asia, or consent of instructor.

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Department of Geography
University of Kansas

Self Study for 2010 Program Review

APPENDIX H

Example of an Annual Newsletter
A Letter from the Chair

Status of our Department

In previous newsletters, I’ve focused on the growth of our department relative to the preceding year. This year I thought it would be interesting to contrast our current situation with what it was like ten years ago. Today, we have 22 faculty, 6 staff, 80 graduate students (52 PhD and 28 MA), and 213 undergraduate majors (134 Geography and 79 Atmospheric Science). Ten years ago we had 13 faculty, 4 staff, 69 graduate students (33 PhD and 36 MA), and 75 undergraduate majors (all Geography). Part of our growth can be explained by the addition of atmospheric science in 2003 (currently we have five faculty dedicated largely to atmospheric science and climate-related issues), but obviously we’ve grown in other areas. Our additions this past year include Jay Johnson (indigenous nations studies), Barney Warf (economic geography), and Dan Hirmas (soils geomorphology). We’re having to do a bit of remodeling to fit everyone in; for instance, we are remodeling Valery Terwilliger’s isotope lab to create a soils lab for Dan Hirmas, which will include his own office space and space for graduate students.

A larger faculty and a greater number of students are signs of a healthy department, but we still have deficiencies. Our two most obvious needs are a remote senser and a biogeographer (to replace Kevin Price and Valery Terwilliger). Unfortunately, it is unclear when we will be able to meet these needs, as the College has suspended hiring for this fiscal year; like other areas around the country, the Kansas economy is in rough shape and eliminating approximately 20 searches can save the College several million dollars.

On a cheerier note, I am excited to report that the Board of Regents has approved a new M.S. degree in Atmospheric Science. This new degree program will provide opportunities for students who want to do graduate work in atmospheric science here in Kansas. The atmospheric science faculty members are eager to have graduate students work on research projects with them, and we will start course work for the program in Spring 2009 with ATMO 710 Atmospheric Dynamics. We also are in the process of developing a new M.S. in Geography that will focus on Physical Geography and Geographic Information Science. Hopefully, this new degree will be approved by next year’s newsletter.

Awards and Honors

I continue to be impressed by the numerous awards and honors that our faculty and students receive; the following are some

The Lawrence and Campus Scene

If I had to pick three themes for the year, I’d have to go with Hope, Change, and Budget Cuts. Let me go through these backwards. Lawrence and KU are facing the grim realities of the global fiscal crisis, as are we all. This mess is only beginning to strike at the heart of our lives. Lawrence has had slowed overall growth in recent years, but it is now combined with a downturn in the real estate market and various other sectors. KU is in the early stages of what will probably be several years of gruesome rescissions thanks to bad revenues for the state. But since we don’t have any idea how bad this is all going to be, I’m not going to waste any more space on boring you with the nasty impacts. Besides, maybe we’ll get some of that $700 billion bailout money, since they seem to keep changing their minds in DC about how to spend it!

That brings me to change. In the Department, we have several major changes, mainly in the form of three new faculty members for Fall 2008 as I am sure you will be reading elsewhere. On campus, Allen Fieldhouse has changed: as of this evening, there is a new banner hanging from its rafters that reads 2008 NCAA Men’s
of the highlights:

Shannon O’Lear received the department’s sixth Kemper award for teaching excellence (http://www.features.ku.edu/kemper/).

Bill Johnson and Chris Brown received the 2008 John C. Wright and Byron A. Alexander Graduate Mentor Awards, respectively, from the College of Liberal Arts and Sciences at KU.

Jerry Dobson was the recipient of the first ever Cartography and Geographic Information Society (CaGIS) Distinguished Career Award (http://www.accessmylibrary.com/coms2/summary_0286-35255464_ITM).

Two of our undergraduate students, Ava Dinges and Andrew Oberthaler, won American Meteorological Society Undergraduate Scholarships. Ava was also awarded a NOAA scholarship.

ATMO undergraduate student Jesse Lundquist was selected for the prestigious National Weather Service Student Career Education Program (SCEP). This is a paid internship with the National Weather Service, and interns are typically offered a full-time NWS position upon graduation.

Josh Long received the 2008 Carlin Graduate Teaching Assistant Award, one of only two awarded in a university-wide competition (http://www.news.ku.edu/2008/april/18/gradawards.shtml).

Hilary Hungerford received the 2008 Outstanding Thesis Award and the 2008 Howard Baumgartel Peace and Justice Award (both from the College of Liberal Arts and Sciences at KU).

Several of our graduate students received Foreign Language Area Study awards: Brett Chloupek for Polish, Hilary Hungerford for Hausa, Heather Putnam for Kiswahili, and Luke Struckman for Arabic.

Ryan Good and Megan Holroyd received scholarships from the KU African Studies Center for Applied Research on African Health and Development.

Dave McDermott was the 2008 recipient of the Cartography and Geographic Information Society (CaGIS) Scholarship.

Jon Thayn received the 2008 Robert N. Colwell Memorial Fellowship from the American Society for Photogrammetry and Remote Sensing.

Andrew Allen was a member of the University of Wyoming World Geography Team, which won the AAG regional geography bowl competition for the second consecutive year.

Annual AAG Party

For our annual AAG Party this year, we are planning a joint party with K-State. I will let you know more as soon as I have the detailed information, but for now please make a mental note to attend our party in Vegas!

—Terry Slocum

Chair Terry Slocum and Kemper Award winners Garth Myers, Steve Egbert, Chris Brown and Shannon O’Lear.

Scene

Continued from page 1

Basketball Champions. After the glories of the Fall 2007 campaign, however, our football team’s changes for Fall 2008 might more aptly be described as reversions to form – from 12-1 Orange Bowl champions at the beginning of the calendar year to 6-5 contenders for a decidedly downdoyleart market bowl game at its end. Ad Motor City Bowl Per Aspera.

Physically, campus continues to change as well, most notably in the seemingly endless diversions of traffic required for a tortuously long and involved rebuilding of the steam tunnels under Mt. Oread. Whatever they have done, it has yet to bring sufficient heat or consistent temperature to either of my campus offices in a manner one assumes a thermostat in the 21st century would do. The budget cuts may be bad, but the news did not go sour in time to prevent several huge new additions to the football facilities. Just south of Memorial Stadium, we now have an indoor conditioning complex, and two outdoor artificial turf practice fields. I have yet to see the team use the latter, apparently because the coaching staff has been concerned that their opponents would spy on them and expose their trick plays given how conspicuous the very green new fields are (this precaution didn’t seem to prevent some teams from figuring out what our offense was up to on Kivisto Field next door, clearly; see under Longhorns, Texas or Red Raiders, Texas Tech). But maybe in a few decades the trees that were planted to help conceal the fields will make up for the trees that were cut down for the football complex and the steam tunnel work. Anything to lower the carbon footprint.

Lawrence continues to change, as ever. Perhaps the most astounding change in the early part of the year was not that we actually got to caucus in the presidential primary season (Kansas having cancelled its caucus for several decades in a row), but that for one of the two parties this caucus actually mattered. Republicans certainly had their caucus, and it was lively, but the race for the nomination was as decided as the redness of the state in the
Degrees Awarded

Dissertations and theses completed during the 2007-08 period are as follows (advisor in parenthesis):

Zac Cooper, MA, “Changing Demographics in Latvia by Changing Ethnic Law” (Shannon O’Lear)

Sergio Manuel Carneiro Freire, MA, “Modeling Daytime and Nighttime Population Distributions in Portugal Using Geographic Information Systems” (Johannes Feddema)

Levi Gahman, MA, “Identity, Body-Image and the Global Epidemiology of Eating Disorders” (Garth Myers)

Mauricio Herrera Rodriguez, PhD, “Sustainable Development in Costa Rica: A Moral Geography” (J. Christopher Brown)

Aubrey R. Jones, MA, “Impacts of Soil Moisture Variability on Convective Precipitation in the Central Plains Through Land-Atmosphere Feedbacks” (Nathaniel Brunsell)

Jeffrey R. Krecic, MA, “Soils as a Factor in Pinyon Pine Mortality Due to IPS Beetle Infestation in Garden Park, Colorado: A Case Study” (Curtis Sorenson)

Joshua Long, PhD, “Weird City: Sense of Place and Creative Resistance in Austin, Texas” (Garth Myers)

Iwake Masialeti, PhD, “Assessment of Time-Series MODIS Data for Cropland Mapping in the U.S. Central Great Plains” (Stephen Egbert)

Terri Woodburn, MA, “Historical Response of the Wakarusa River Channel to Anthropogenic Influences” (William Johnson)

Ashley Zung, MA, “Landslide Soils and Geomorphology in Camp Davis Quadrangle, Bridger-Teton National Forest, Wyoming” (Curtis Sorenson)

General election by the time the caucus came about. By contrast, the Democratic caucus sites in the city were absolutely inundated; several had to move locations, and at least one had to open a satellite site, to accommodate the huge turnout, despite a furious snowstorm. (Many people that day remembered the immortal words of Will Rogers: “I don’t belong to any organized political party. I’m a Democrat.”) But the overwhelming support for Barack Obama in Lawrence helped him to a lopsided victory in Kansas that pushed him that much further along toward the presidency. Political energy and change kept on churning in Lawrence, though, long after the caucuses. Voters in November sent an astounding message of support for public transport by backing, by 70% and 75% margins, slight sales tax increases to help pay for the “T”, our city’s small, under-funded and under-utilized public bus service. Voters showed even more support for investment in much needed infrastructure projects around the city. Controversies abound – a lawsuit has stalled, for now, the Lawrence Public Schools’ efforts to develop several athletic fields around Lawrence High School (including on the grounds of the former Centennial Elementary School); sites proposed for a new business park run into opposition or cost barriers all around; and the South Lawrence Trafficway project continues to astound me with its capacity to bring to life grandiosity and small-mindedness in equal measure while continuing to not be built. BUT: the change I’ve felt this year in town is a change toward civic-mindedness, and despite policy arguments and disgruntled people on almost any issue, I find it refreshing to see Lawrencians becoming more involved with each other and looking out for each other, in ways big and small.

So that is my hope. Things are ugly and likely to get even more so, on campus and in town, in financial terms. But we have a department, a university, and a city that have been putting themselves in decent positions to weather the storm. Even if that sometimes means we don’t hear the sirens at all when the tornado approaches, or hear them absurdly in a mild drizzle when there is only the angry reactions to the earlier silence that could possibly have caused them to be set off (both of these things actually happened this year). Hey, we HAVE sirens. At this point, that looks good.

—Garth Myers

gmyers@ku.edu
Globe-O-Mania 2008—Another Huge Success!

The Geography Department’s 4th Annual Globe-O-Mania event was held on November 20th and marks another celebration of Geography Awareness Week. This year, 37 teams played through three rounds of geography trivia, and four teams made it to the Sudden Death Tie Breaker round. How Swede It Is, a team including grad student Andy Allen, and Got Togo, tied for first place, Oman! swept into second place, and Cyprus Hill cleaned up in third place this year. Prizes included movie passes generously donated by Liberty Hall, KU Geography Department frisbees and T-shirts.

This year, Globe-O-Mania had two Masters of Ceremony: Austen Thelen and Andy Hilburn tagged through the questions, roamed through the participants, and kept spirits lively. Dan Hirmas and Barney Warf, new members of the Geography faculty, along with several grad students and countless undergrads were there for their first (and hopefully not last!) Globe-O-Mania event. Stephanie Meador and Stephanie Day organized the food drive, and all donations went to Women’s Transitional Care Services in Lawrence. Other grads who made key contributions to this year’s event include Ryan Good, Nicole Reiz, Megan Holroyd, Hilary Hungerford, Keith French, and Lisa Rausch. Once again, Globe-O-Mania was enjoyed by all!
—Team Globe-O-Mania

Advisory Board Update

The Alumni Advisory Board had a productive year. Last November the Board met in Lawrence for its annual in-person meeting. We helped keep team scores at Globe-o-mania, sponsored a Geography/Atmospheric Sciences tailgate, provided career counseling to students, and members Randy Baker (ATMO) and David Stearns (GEOG) gave class presentations. Follow-ups with students resulted in one being hired at NavTeq and research work being applied at NOAA. Earlier this year the Board held a donation match challenge that raised $14,000 for ATMO/GEOG undergraduate scholarships, graduate scholarships and research support.

This October the Board held its 4th annual meeting at Lindley Hall. We welcomed new board members Michelle Joest (ATMO ’87), Mike Hudson (ATMO ’93), Ken Nelson (GEOG ’93) and Michelle Russell (ATMO ’91). The meeting included a visit from Joseph Steinmetz (Dean of the College of Liberal Arts & Sciences), 2 student presentations, a visit to CRESIS (NSF funded lab for studying ice sheets), and an advisory board best practices session with representatives from Western Kentucky U., Penn State U., and UCLA. The all day meeting was insightful and energizing and the Board is looking forward to continuing its support of students and connecting with alumni.
—Robert Shapiro, Chair
robert.f.shapiro@verizonbusiness.com

For the first time, Globe-O-Mania went public, as part of the CLAS ACTS series sponsored by the College.

The Deans of the College think over their answer to a question in the final round, while graduate student Keith French waits to record their decision. The Deans lost the final round of the public competition.

Board members Randy Baker, Rob Shapiro & Prof. Jerry Dobson at the Oct. Football Tailgate.
Walter Kollmorgen Remembered

Walter Martin Johannes Kollmorgen (1907-2008)

Walter Kollmorgen, the department’s founder, died last July 22 in Gretna, Nebraska. An intelligent, blunt, and hard-working man, he was born and raised in a rural German neighborhood near Bancroft, Nebraska. He was the third oldest of Karl Kollmorgen and Dorothea Bendin’s eleven children. His father worked as a teacher at the Zion Lutheran School.

After earning BA and MA degrees in geography at the University of Nebraska in 1931 and 1933, respectively, he enrolled in the doctoral program at Columbia University to work under Professor J. Russell Smith. Jobs were scarce during these years, but by the time he graduated in 1940, he had found employment with the Bureau of Agricultural Economics in the U. S. Department of Agriculture. There he remained throughout the war doing significant applied research on ethnic settlements, the government’s subsistence homestead program, and land reclamation in the lower Mississippi Valley. One such report, on the Amish in Pennsylvania, became a USDA best seller. He has described these years in an autobiographical paper in the Annals for March 1979.

Walter came to Kansas in January 1946, shortly before his thirty-ninth birthday. He foresaw an uncertain future at the USDA because of hiring preferences given to returning GIs, but opportunity in university teaching having these same GIs as students. Capitalizing on wartime curiosity for the study of regions, maps, and aerial photographs, Kansas was one of many universities to create a new geography department at this time. Walter has credited geology professor Lowell R. Laudon with pushing geography’s case to the administration and welcoming him to share space in Lindley Hall. With a mandate from the dean to establish a graduate as well as an undergraduate program, Walter hired economic geographer Thomas R. Smith (a classmate at Columbia) in 1947 and cartographer George F. Jenks in 1949. During his two-decade chairmanship (1947-1967) the department flourished, and by the time he was ready to retire in 1977, it was regarded as one of the best in the nation.

Walter’s career was molded partly by the pragmatics of farm life in the horse- and-buggy years of the 1910s and partly by the applied nature of research with the USDA. When he came to Kansas he naturally focused on the state’s rural economy and its adjustment (or lack thereof) to changing conditions. First, with a young George Jenks in tow, he explored the implications of farm expansion in the High Plains of Sherman County. Next, following the disastrous flood of 1951 in the Kansas River basin, he championed the concept of building many small, upstream dams instead of the large, downstream structures favored by the Corps of Engineers. His arguments, delivered in the voice of an Old Testament prophet, resonate well with modern ecological thinking, but went against the political power brokers of the time. Reading “And Deliver Us from Big Dams” now (Land Economics 30 [1954]: 333-46), it is hard to believe that it generated serious attempts to get him fired and an IRS audit of his income taxes every year until the big Mississippi floods of 1993. After which (as he told Severin Roberts), his records “were miraculously deemed to be in order.”

Following the excitement of dams, Walter (and George) returned to the High Plains to explore in more depth two important ways to lessen the risk of wheat farming that they had seen in Sherman County. He dubbed these adaptations “suitcase” (spreading landholdings over several states) and “sidewalk” (spreading land plus a job in town) and the reports became classic (Annals 48 [1958]: 27-40 and 209-31). These efforts were followed by still another major field study—an ecological examination of grazing operations in the Flint Hills of Chase County (Annals 55 [1965]: 260-90). Starting in the mid-1960s, Walter’s curiosity turned toward historical topics, especially environmental perceptions of the Great Plains and their role in the settlement process. He proudly taught a class where all the readings were published prior to 1900 and wrote two more highly praised articles for the Annals. One, “The Woodsman’s Assaults on the Domain of the Cattleman,” was his presidential address to the Association of American Geographers (59 [1969]: 215-39); the other, “Landscape Meteorology in the Plains Area” (63 [1973]: 424-41) revisited the topic of his MA thesis from forty years before. He also began work on an unpublished, book-length manuscript on how Europeans and early Americans evaluated the economic and other potentials of the North American continent. This eventually ran to over six hundred pages.

Walter’s work brought him many honors. The AAG cited him twice for meritorious contribution, KU named him to a distinguished professorship in 1963, and he served the AAG as both editor of the Annals (1955-1961) and president (1967-1968). He certainly deserved such kudos, but always acknowledged that he had the advantage of a silent partner: his sister Johanna. Walter and Johanna had been paired since 1910 when polio had crippled Johanna. Walter and Johanna had been paired since 1910 when polio had crippled them both as young children. She was with him at the University of Nebraska and provided his entree to government work in the 1930s. At Kansas she headed the Douglas County Planning Commission while he ran the department, and she handled many of the Annals editorial duties.

Polio was a fact of Walter’s life, but he refused to let it be a limitation. He won a Model T Ford for the family in 1921 by selling more subscriptions to an Omaha newspaper than anyone else. To meet...
expenses at the University of Nebraska he daily pulled himself up and down the stairs of a third-floor apartment because that floor offered the cheapest rent. At Kansas he eschewed urban life in favor of the Lone Bull Ranch south on Highway 59 where he kept a small herd of Angus cattle. There he sloughed off academic headaches with good physical work. Students helped him reseed brome pastures with native grasses and saw hay bales fly from his strong arms. He also drove tractors and pickup trucks with seeming ease, but any student invited along on a trip quickly learned that the thrills of keen landscape commentary came with a measure of terror. Walter, you see, could slow down only by using a hand to physically move his leg from the accelerator to the brake.

People tell me that sternness runs in the Kollmorgen family, and Walter certainly epitomized this trait. His sharp tongue could deflate students and family members alike. When one of his nephews, Earl Reppert, proudly announced that he had been accepted to medical school, Walter’s reply was: “I’m not surprised. All the really good students are going into rocket science these days.” For my part, I recall his way of getting a student to babble everything he or she thought about a subject. If he or she hesitated, he would then light an omnipresent pipe, look over his glasses with a certain smile, and somehow make you feel like a complete idiot.

As a person who demanded much of himself, Walter expected the same of students and colleagues. Life was not easy with the Lone Bull, but his energy, doggedness, and example underlie all that the department is today. He taught me and his other fifteen MA and fifteen PhD students the joy of fieldwork, the value of area studies, and the power of precise, animated prose. We will miss his one-of-a-kind integrity and presence.  

—Pete Shortridge

It was after I arrived at KU in 1966 that I discovered that Walter, his sister Johanna and I had a link, G. Donald Hudson. Hudson had been Chair of the Geography Department at the Univ. of Washington and he and I were close friends. He actually introduced me to Geography as a profession. Earlier he had been an official at the TVA where he had been Walter and Johanna’s boss. Hudson initially had not wanted to hire Walter to do field reports because of his polio infirmity. He did not feel he could do the walking necessary. Johanna was hired as an editor. It was this work, the first job for Walter as I recall, that set the stage for Walter’s now famous writings of the geographies of rural and agricultural America.

As a long-time editor of the Annals, and one strongly committed to language and clear writing he once told me that he had chaffed at (resented) Hudson’s editing of his reports. Walter also told me, and others, how he often was disappointed to see manuscripts he had rejected appear elsewhere.

Writing and thinking were his great passions. Nonsense and Government programs were his bane.  

—Bob McColl

As an undergraduate, I was always a little bit intimidated by Walter’s intellect. He officed in this sacred area adjacent to Dr. Kuchler. Just walking past the dark entrance made my breath quicken and knees shake a little.

When I went to the University of Minnesota to start my MA work and met the stable of notables there (including John Fraser Hart, John Adams, Yi Fu Tuan, John Borchert, and many others), Dr. Kollmorgen was like a “god”. They would ask all these questions about him and were amazed I knew so little. They considered Kansas to be the third best geography program in the country, somewhere behind them and possibly Chicago. There was also much debate on this issue as well.

We would have Friday “coffees” on those terribly cold Minneapolis afternoons and Dr. Kollmorgen’s name would invariably come up and the debates would rage about the Army Corps of Engineers, changes in Amish culture, or Iowa landscapes. Then, they would turn to me and ask, “What is “He” currently working on?” I realized that when I got back to Kansas I had better walk up the hallowed steps to the dark office and introduce myself.

—Ivan Linn (BA, 1972 MA, 1976) 
mvirden@virdenassociates.com

I had the pleasure of interviewing Walter Kollmorgen while I was studying at KU. We spent some time talking about his article about trying to control flooding with levees and dams. The work at the time flew in the face of convention and was very controversial; he was advised at the time to consider whether to publish the work at all. He laughed and shared he’d been audited by the IRS every year until the mid to late 90s. After the floods of ’93, his tax records were miraculously deemed to be in order.

—Severin Roberts (MA, 1999) 
robertss@grinnell.edu

Walter had a stubborn determination and a sharp sense of humor. Sometime during the late 1960s we had a College Faculty meeting in Bailey Hall because the normal meeting place in the Union was not available. But the auditorium was on the third floor and, at that time, there were no working elevators in Bailey. George Jenks and I walked over to Bailey together and found Walter half way up the stairs and totally exhausted. We got on either side of him, lifted him up while he protested loudly, and carried him and his cane to the third floor. He looked at us with scorn and asked in a loud voice, “What do you think I am? A G.. D.. cripple?” Then he flashed that smile that even Obama would envy. That brought a roar of laughter from all the bystanders and, once again, Walter found the distinctive set of words and actions to move through complications into joy. Like Red Skelton, Walter made himself the butt of his own jokes!

—Bob Nunley

Despite his severe physical handicaps, Walter used to raise cattle on his farm. He would occasionally ask me to lend a hand. One day he called me to help put a cow into a squeeze chute to examine it for some reason or other. The chute looked out onto
Walter Kollmorgen Remembered

the yard but it could be entered only by way of a small enclosure in the barn. While Walter sat on a small bale of hay in the enclosure, I tried to guide the cow into the chute. Suddenly the animal went berserk. It broke through the restraints and charged into the area where Walter and I were.

I hightailed it out of there by climbing over the gate into the yard. Then I looked back and there lay poor Walter yelling as the frenzied animal was charging and stomping around. With knees trembling, I climbed back into the enclosure and somehow managed to get that rogue cow out of there. I was literally trembling, but the only sign that Walter gave of being scared was a bit of perspiration on his forehead. I remember thinking, “This guy may be handicapped, but has more guts than a bull elephant.”

—John Augelli

I believe that I enrolled in two agricultural geography classes with Dr. Kollmorgen. Sometimes he would hold graduate seminars at his small ranch outside of town in the evenings. The students always looked forward to the seminars because his sister Johanna would always bake a huge batch of fresh cookies for us. In addition, seminar students were often requested to help work Dr. Kollmorgen’s prize Angus herd on Saturday mornings. Since I was a farm boy from Nebraska I kind of enjoyed being outdoors, but some of my “city slicker” colleagues were seldom enamored with the ranch work. Dr. Kollmorgen was a tough professor and very demanding regarding writing exercises, but he helped shape a generation of future geographers. I last stopped to visit with Dr. Kollmorgen at his Gretna, Nebraska retirement home two years ago. His mind was still as sharp as a tack and he was eager to share with me a large volume of material he had been reading on the Middle East. He made a difference, what else could most of us ask for?

—Byron Augustin (MA, 1968)

Walter Kollmorgen was one of those unforgettable people that one encounters in life. I met him first in 1950, when I showed up as an undergrad at KU. Through the years I got to know him well, as a student, lab assistant, and mentor at the Master’s level. He was a fine man, full of courage, salt and vinegar, and wisdom.

In the summer of 1952, we corresponded a little when he was teaching in the summer session at the U. of Virginia and I was teaching a lab at KU. Here is a paragraph from his letter of July 7, 1952:

"Johanna [his sister] and I live in a big, monstrous old house cluttered with furniture salvaged from Noah’s Ark. A few pieces are good but most of it is horrible stuff. Never again will I be tempted to waste any money on antiques. As usual, these ancient domiciles have a $100,000 front and a dime-store kitchen. The oven doesn’t work and when used, the door needs to be bolted with a chair. We eat on an old card table. The place is dark and gloomy. For all this we pay $100 per month!"

In the same letter, I was admonished for a generality in my earlier letter to him: "You say that out there ‘things are drying up pretty fast’ ... Are you having long dry spells? Are crops suffering? Is it getting serious? Remember that I am a farmer and, perhaps, I should start getting some aid program underway."

I learned a lot from Walter Kollmorgen, as I’m sure many others did too. I hope the AAG gives him his due as a very outstanding geographer of his time.

—Charles Heller (BA ’52, MA ’57)

(I assume others had this same experience.) Sharon and I were twice invited by Walter and Johanna to dinner. That was special to me as a graduate student. Of course, the quid pro quo was that Sharon, our 3-year old son Bryan and I ended up pulling Canadian Thistle at the Lone Bull Ranch. You may be wondering how this happened a 2nd time. Well, as President Bush would say “There’s an old saying Tennessee- I know it’s in Texas, probably in Tennessee- that says, fool me once, shame on- shame on you. Fool me- you can’t get fooled again.”

—Joe Manzo (PhD, 1978)

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okalamazoo@chartermi.net

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When requests for submissions to newsletters come around, I always read with interest the various postings from parties both known and unknown, but I rarely feel compelled to contribute. But after hearing the news of Walter Kollmorgen’s passing, this year is different.

Writing from the perspective of having been a student, adjunct or in some way affiliated with the K.U. Geography Department in four different decades and the distinct pleasure of having served as Dr. Kollmorgen’s "best boy" for a year or so, I hope that I can contribute some small nugget to the collection.

Walter Kollmorgen was interested, first and foremost, in the great ideas of geography, rather than methods and process. His lectures poured out as an extemporaneous discourse, often using only a map as the cues to launch the discussion and move it along. This differed markedly from his writing process, which he described as "slow and painful" and one in which he "agonized over every word and detail." And yet, despite working from handwritten drafts that were almost cuneiform, his output was voluminous.

The high standards to which he held himself were also extended to his students. "Environment and Man" (an undergraduate lecture course) used a reading list heavy in primary sources from the 19th century to Ancient Greece. Grading 250 multipage essay exams (several times a semester) still figures prominently in my stress dreams. This description aptly paints Kollmorgen as something of an anachronism in today’s environment; he certainly was not influenced by the "quantitative revolution" in geography. His emphasis on rigorous scholarship and quality writing, however, is something that stands the test of time.

As an individual, Walter was just as distinctive. He suffered no fools; at times he could be charitably described as "crusty." The thunderous whack of his cane—against the accelerator in his truck have more than a grain of truth for anyone who ever rode with him.

Since we both shared some common roots back in northeast Nebraska, I especially appreciated the long journey that his life had taken. His origins in the conservative environment of German Lutheran farmers could not have predicted his great scholarly achievements, but they undoubtedly gave him the drive to persevere despite the disabling effects of childhood polio. He was truly one of a kind. So let's all pause and raise our toast of choice. Walter, this Bud’s for you.

—George Ulbrick (MA 1996)
Geowu911@aol.com

I have general memories of people at KU in the early 80s (when I was there) talking about how the fed. government tried to get him fired after his series of 3 articles on the folly of dam-building in the Kansas and Missouri River watersheds in the 1950s; and what Pete and others there at the time used to say about Walter dressing up in Amish garb as he tried to shock students about the perils of living in a small, tight-knit, religiously-based community. I also still have the audio tapes of what I think may be his last public lecture given in 1982 -- "The Enigma of the American Climate" -- which was based on an epic book he was working on.

More personally, I used to visit Walter out at his house on the other side of the Wakarusa River ("The Wakie" as he affectionately termed it). During his retirement years there, he sometimes requested that a graduate student help him run down sources over at Watson Library and bring photocopies out to his place. I was lucky to be asked to do that on a few occasions. I remember the first time especially. He asked me where I’d gotten my undergraduate degree. When I told him it was UC-Berkeley, he leaned out of his chair toward me and bellowed, “So! Did you genuflect before that god out there?” Those exact words still stick in my mind after all these years. I was startled by his aggressive sarcasm. But I’d been warned that Walter was pretty cantankerous. I’d graduated from Cal in 1975, the year Carl Sauer died, so I hardly knew the man. But I realized this was who Walter was referring to. I told Walter that I’d met Sauer only once, when he gave a guest lecture in my biogeography class, a meandering hour-long lecture about fire, ‘primitive man’, and a whole bunch of other stuff that frankly, I said, blew right by my ears and over my head. Walter waved his hand and said, "Let's not talk about that. Now...what is it that you’re up to?" The rest of the conversation, as I recall, had me on the defensive about my dissertation research for about 30 minutes. It was like a cross-examination.

—Bob Rundstrom (PhD 1987)
rundstrom@ou.edu

I have always felt that the time I spent with Professor Kollmorgen was among the very finest experiences of my academic career. He did that weekly evening "reading" seminar at his home. In my case there were six of us, I believe. Each week, he handed us readings from his immense collection, or sent us to find some esoteric/practical/fundamental/philosophical piece in the library. When we re-convened the following week, he would generally ask each of us a single question, encompassing all that we might have read--and occasionally sending us scampering back to the library the morning after our seminar. His way of asking such questions changed my teaching and changed my approach to the study of geography itself. His amazing understanding of geographic thought, traditions and systems inspires me to this day. Our discipline is better and brighter for his interest.

—James L. Huckabay (PhD 1975)
Huckabay@cwu.EDU

I was fortunate to have been Walter’s last research assistant, taking over that position from Willy Dobak. One of my earliest memories of Walter was the day he took me out to Clinton Lake in his pickup. This was early 1973. Although the dam was finished, the Wakarusa had not yet begun to flood what would soon be Clinton Lake.
Walter Kollmorgen Remembered

We went bouncing down a steep incline at speeds I was sure would send the truck rolling at any moment.

Once we reached the Wakarusa Bottoms, Walt raced around as though the flood waters could arrive at any minute. As I came to know Walter I realized how uncomfortable he must have been in that place. I’ve never known a man who hated dams more than he did. He pointed with his heavy cane to the enormous piles of trees anchored with cables. “Fish habitat”, he muttered, turning up his nose as though he had just caught a whiff of dead fish in the cab. “Just another charade to get the cost/benefit figures for this boondoggle to look favorable”. He predicted the lake would attract ridiculously oversized boats and soon this “cornfield lake” would silt up much faster than the Corps of Engineers was letting on.

—Michael Caron (MA 1978)
mcaron@sunflower.com

I remember Walt with great respect and affection. He and George Jenks were responsible for my having a career in the academic world that might not have come to pass but for them.

—Carol Barrett (MA 1962)
cfgibbs@comcast.net

I have many memories of Walt (Dr. Kollmorgen) from 1963 to 1966. Before I arrived at KU, I could write to him Sunday Night and mail the letter from the Macomb, IL, depot before 12:30 AM Monday and get a reply from him in the Tuesday morning mail. To enter his office was always to enter an oral exam. Once he was cleaning his correspondence files from when he was Annals editor. I cruised through all of the names and accomplishments of famous geographers until he came across Ralph Brown, the previous Annals editor. No matter how many or whose work I had described, I knew I had failed. I decided that I should enter his office on the attack, so the next time I asked why he didn’t raise sheep instead of his herd of Angus. As a Nebraska cattleman, that thought stopped him cold, and I got no oral exam that day.

Walt was a fast driver in spite of his lack of full use of his legs and one arm. In 1964 Eric Johnson, Stan Morain and I drove with Dick Skaggs in his little Valiant to Columbus, Ohio, to the AAG meetings. Walt drove alone in the Department’s 1956 Chevy station wagon and made it in two hours less time. Once while he attended a summer AAG meeting, he asked me to drop in on his 15 year-old nephew who was staying at his place tending his cattle. I caught him driving the pickup on the highway and told him not to do that again. He later ran it into a ditch before Walt got home. Walt just traded for a new International pickup. He took me for a ride through his pasture and asked me what I thought of it. I said that the old Ford was geared too high to drive slowly over the rough pasture and that you could easily drive slowly in the International and have a smoother ride. He said “Oh, I never thought of that.”

—William Johnson
wcj@ku.edu

Though Walter had retired one to two years before I arrived at KU, he was around the department frequently enough that I got to know him, at least a bit. The only real adventure that I had with Walter was on his farm south of town. Because I was a physical geographer, he said he wanted my opinion on removing tree stumps from his pasture. After he told me what my advice was going to be, we got in his pickup and took off—he drove like a wild man, using his cane to operate the accelerator and steering just enough to make certain that we were hitting all the cow paths/ruts in a perpendicular fashion. After getting the snot shaken out of me, we stopped to look at a couple of stumps. He then went off on how we should use dynamite to remove them. That was enough for me! I told him that I did not want on-the-job-training from him on the art of using dynamite. That aside, I found Walter to be a fascinating and extremely likable ole fart.

—Bill Johnson
wcj@ku.edu

Walter Kollmorgen was a great teacher and mentor. I was his research assistant while in graduate school and spent much time in the libraries and at his Lone Bull Ranch south of town. His passions had a way of rubbing off on those he taught and I feel my life much enriched by exposure to him. His joking reference to my hometown (Washington, DC) as “that sinful city in the East” echoed his disdain of pork barrel projects and boondoggles which he was always ready to lampoon. Interaction with him was never dull! I know I’m not alone in mourning his passing.

—Jay Farrell (BA 1971; MA 1974)
jlfar@earthlink.net

—Dwight Brown (MA 1965; PhD 1969)
dbrown@umn.edu
Gray Tappan’s Lifetime Commitment to Africa’s Sahel

Gray Tappan is a graduate of the Class of ’81 with B. A. and M. A. degrees in geography and a B. A. degree in French, all from KU. He has worked at the United States Geological Survey’s EROS Center for more than 21 years, and every year he spends many weeks conducting fieldwork in Africa on the southern fringes of the Sahara. His dedication to monitoring and promoting forest management in the dry Sahel was highlighted on NPR’s “All Things Considered” on July 2, 2007 (http://www.npr.org/templates/story/story.php?storyId=11608960).

Travel with Gray through West Africa, and you will find yourself in the presence of a bonafide celebrity. Ride with him into a remote village in the Sahel, and you will see villagers flock around him. Walk through a government office in Senegal, Mali, Burkina Faso, or Niger, and you will stand aside as officials welcome him with open arms. Dine with him at a restaurant in Niamey, Niger, and you will enjoy the restaurateur’s slide show of photographs, set to music, which he, himself, shot among the Saharan Tuaregs more than 30 years ago. Then he’ll explain that his priceless images had turned blue with age until Gray happened along and digitally restored every one to its original brilliance.

Gray’s specialty is remote sensing, and he’s used it to help some of the most disadvantaged people on earth. In particular, he uses satellite images to monitor the gain or loss of forests, and agricultural soil and vegetation conservation practices in response to government, international, or donor sponsored programs. One of the most successful programs, for instance, builds rock bunds along contours that simply hold rainwater a little longer on those rare occasions when it does fall. Any observer can readily see that the area behind each line of rocks helps grow corn. Gray’s remote sensing analyses go further to prove a more subtle point: these interventions also increase groundwater flow and support increased tree growth on farmland.

Gray is renowned in West Africa among geographers, environmental scientists, government officials, and many others for his efforts to apply remote sensing in practical ways to pressing problems of land management, particularly the need to strike a balance between natural resource conservation and growing demands to devote more land to food production.

Two recent projects exemplify Gray’s recent work in West Africa’s Sahel – a semi-arid transitional region between the Sahara Desert and the more humid wooded grasslands and forested regions to the south. The Sahel has been in the news over the past several decades because of its vulnerability to drought and desertification, and the tremendous hardships faced by its population of more than 50 million people.

Gray has been using satellite remote sensing data to map and monitor land use and land management in Africa since he left KU in the early 1980s. He says that the opportunities are greater today than ever before for using remote sensing to deepen our understanding of the human impact on the African environment – an impact we can now see clearly through changes in land use practices. He finds it both curious and fortuitous that as the anthropogenic forces driving environmental change are accelerating worldwide, with the potential to inflict irreversible damage to our planet, the powerful tools that we now possess for Earth observation are contributing to deeper knowledge about our impacts, and are promoting increased awareness among the global community.

Now, Gray’s son, Taylor, is following in his footsteps, and we are fortunate to have him as a geography major.

—Jerry Dobson
Professor of Geography
Emeriti Corner

Bob McColl
Being retired and a Geographer is a joy with lots of time to travel and think and write. I am on the Board of our condo in Naples, Florida, where I spend time between sitting on my terrace looking at the beach and pool and photo documenting Old Naples and other Florida settlements before they are gone.

I spend several months of the year in Costa Rica and have documented and written about its churches as navigation and cultural markers of community and place (FOCUS).

We also have a place in Spain overlooking Gibraltar and Morocco so I have just returned from time in Tunisia - doing lots of photo documentation. The Mediterranean is now a major interest, especially its history of commerce, cultures and arts. Libya is my next objective, but Americans still cannot get visas.

These new photos and the photos from forty years of field work are now being collected, scanned, annotated and put on-line at the American Geographical Society Library in Milwaukee. Something I hope everyone who has photos from the field will do as well. It is great visual geography of time and place, e.g. I have photos of the Bamiyan Buddhas destroyed by the Taliban, Persepolis under the Shah, China pre and post Tiananmen China and Mongolia from its opening and end of Communism, etc.

Hopefully I will return to China in the next year or two and document the massive and rapid changes there.

I still study modern geo-politics and terrorism and its unique geographies. I am not sure I want to write anything yet. Certainly no more models of how to do it. Something purely descriptive perhaps, but I am still pondering that.

I continue to support a number of professorships (five at Wayne State University in Detroit and 40 at KU), I spent the first five years of retirement as Dean of Faculty of Holos University Graduate Seminary (www.holosuniversity.org). Then I retired from the administrative work and continued teaching and conducting research. My replacement burned out and I am once again coming out of retirement to serve as Dean of Faculty. I have never been busier, but I have never been happier. For my 77th birthday earlier this year I split, carried, and stacked two chords of wood. Thankfully I remain in very good health. I still do an hour of yoga and meditation plus an hour of classical guitar each morning before 6:30. If any of you have any good stories to share that didn’t get included in the newsletter send them to me in an e-mail and I, in turn, will send them to everyone else who sent me such a story. Do I smell the beginnings of an underground newsletter?

Be well.

mccoll@ku.edu

Bob Nunley
My years of retirement are fascinating. Although I managed to avoid full-time administration for 45 years of full time professorships (five at Wayne State University in Detroit and 40 at KU), I spent the first five years of retirement as Dean of Faculty of Holos University Graduate Seminary (www.holosuniversity.org). Then I retired from the administrative work and continued teaching and conducting research. My replacement burned out and I am once again coming out of retirement to serve as Dean of Faculty. I have never been busier, but I have never been happier. For my 77th birthday earlier this year I split, carried, and stacked two chords of wood. Thankfully I remain in very good health. I still do an hour of yoga and meditation plus an hour of classical guitar each morning before 6:30. If any of you have any good stories to share that didn’t get included in the newsletter send them to me in an e-mail and I, in turn, will send them to everyone else who sent me such a story. Do I smell the beginnings of an underground newsletter?

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John Augelli
Another year has passed by, and amazingly enough, I’m still here—and feeling pretty feisty. I shall be 88 in three months. If Walter Kollmorgen is not careful, I shall catch up to him.

I did no lecture cruising during 2008, but the wanderlust is still there. I shall be cruising again beginning in February of 2009. It is off to Central America and such unlikely places as San Juan del Sur, Nicaragua; Quepos, Costa Rica, Fuerte Amador at the Pacific entrance to the Panama Canal and on to the Caribbean coast to Roatan Island and Hunting Caye in Honduras, and Belize.

In other respects, I have settled down to being a typical Florida retiree. I bicycle around the park in the morning, go swimming in the afternoon, play bridge or pinochle at night, and celebrate the end of the hurricane season.

The community in which I live is only for senior citizens, many of whom are well into their 90's. At 87, I am one of the younger people in the pinochle group. We have developed a morbid sense of humor, referring to the community as “God’s waiting room”. When a resident passes away, they fly the clubhouse flag at half mast, and it seems to fly at half mast every two or three days. If Hemingway were still alive and living here, he might write a book entitled, “For Whom the Flag Flies”.

I continue to harbor the hope of becoming a “snow bird” again, moving seasonally between Florida and Lawrence. Maybe when the Kansas snows melt and crocuses come up, I may come home again.

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Curt Sorenson
Retirement is suiting us just fine. We love the climate here in Canon City, although we could stand to see a little more moisture. Peggy and I have joined a hiking club and we’re seeing a lot of great country. We purchased a pickup and cabover camper and enjoy trips around the region.

I’m still enjoying the field camp experience, and look forward to it again next summer. Soren Larsen has been an exceptional field camp colleague, and has been instrumental in getting students involved in his NSF grant research in the area. We continue to work with Jim Whitworth (PhD student) and the Bureau of Land Management on a 5 year forest thinning project. KU students from field camp act as project monitors on soils, vegetation, and
Emeriti Corner

geomorphic measures at each thinning site. The project is like an internship with a federal agency and provides a small amount of funding that helps offset some field camp expenses.

Peggy and I are also very involved with preservation of the old Garden Park one-room school just south of field camp and adjacent to our house. We’ve held several fund raising efforts and recently appeared before the CO State Historical Board whereupon the school was unanimously approved as a State of CO Historic Structure. We have a long way to go but progress is definitely being made. We recently received a $9k+ architectural assessment grant and hope to start further grant writing and fund raising, followed soon by the beginning of repairs on the west wall of the structure.

The valley is changing with old families leaving (the Canterburys moved to Penrose) and many new ones moving into recent subdivisions here. See our article in Nov., 2007 Professional Geographer on these and related issues of landuse changes out here.

Our kids are in CO too. Anna, her husband and our nearly 3 year old grandson live in Florence and Spencer is enrolled at CSU in Ft. Collins. I’m continuing my recovery from Q fever and feel stronger all the time, so altogether we are healthy and happy here in CO. We like to see old friends and former students. There is always a cold beer in the refrigerator. If you’re in the neighborhood, stop in and say hello. I’ll give you the latest Garden Park tour.

Faculty News

Steve Bozarth

Steve Bozarth had another busy year studying ancient pollen and opal phytoliths from sites in Central America, the American Southwest, and the Great Plains. In May, he assisted with excavation of a post-Classic field house at Blue Creek, Belize. In the near future he will analyze microfossils from this site with funding from a National Geographic Society grant. Last year he found charred phytolith evidence that fire had been used to manage the fields on which the structure is located. Analysis of biosilicates in an ash layer at San Bartolo, Guatemala, demonstrated that Classic Period pilgrims made numerous burnt offerings of food and leaves. He found microfossil evidence that the Hohokam (prehistoric farmers in Arizona) were placing offerings of corn, beans and squash in post holes prior to building their homes. Much to Steve’s surprise, he found well preserved pollen in a prehistoric agricultural site in Leavenworth County. This proved to be an important discovery in that pollen is rarely preserved in the Central Plains outside of anaerobic environments. Much of the pollen was produced by hazelnuts, showing that they were an important part of the prehistoric diet. Steve also recently discovered how to identify evidence of meteorite impacts while reconstructing paleoenvironments.

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Dave Braarth

Dave Braarth left for Antarctica at the end of November to participate in a field program to map the ice sheet covered Gamburtsev mountain range in East Antarctica using an airborne ice penetrating radar. The airborne mapping will also include gravity and magnetic fields. This is a major collaborative field expedition supported by the National Science Foundation as part of the International Polar Year (2008/09). He will be in a remote field camp for about a month and will return to KU by mid-January 2009. He is maintaining a blog while in the field which can be found at http://www.cresis.ku.edu/research/antarctica2008. Little is currently known about this phantom mountain range (about the size of the Alps) since it is buried far under the Antarctic ice sheet and is located in a remote sector of East Antarctica near the “Pole of Inaccessibility.” This expedition, to the top of the Antarctic ice sheet, is the first systematic study of our planet’s last unexplored mountain range.

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Chris Brown

Chris Brown has moved into an administrative role at KU. He has taken over from Bill Woods as the Director of the Environmental Studies Program. He continues a 25% appointment in Geography and is developing a new 100-level course, “Environment, Culture, and Society” that is cross-listed with Environmental Studies. This fall the course had 90 students. Conference travel this year will take Chris to the meetings of the Conference of Latin Americanist Geographers in Granada, Nicaragua and the Latin American Studies Association in Rio.

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Nate Brunsell

Nate Brunsell has been continuing his work on climate change in Kansas. He and Johan Feddema were awarded a grant from the Land Institute to examine climate model output for the 21st century. In addition, he has been busy working with the Ecoforecasting group around campus and at KSU; conducting remote sensing analysis, eddy covariance and scintillometer measurements and modeling analysis to examine ecological implications of climate change. He chaired a session at the American Meteorological Society’s Agricultural and Forest Meteorology conference in Orlando, Fl, and was invited to serve on the editorial board.

FROM LINDLEY
of the journal Agricultural and Forest Meteorology. He is also now the alternate representative to the Consortium of Universities for the Advancement of Hydrological Sciences, Inc (CUAHSI). He participated in talks surrounding the selection of the National Ecological Observatory Network (NEON) site in Kansas, including both the Konza Prairie and the KU’s Nelson Environmental Study Area (NESA). He saw his first graduate student (Aubrey Jones) finish her Master’s degree (with honors), and convinced two new students to seek their master’s degree under his direction. He is continuing to teach his usual courses including microclimatology and remote sensing, although he did take a course reduction this fall to focus on his research. This year has culminated in six papers published in areas including remote sensing, eddy covariance and Ebola virus. Five more papers are currently in review (can you tell he is going up for tenure next year?). On a personal note, this was the first year he did not participate in any long distance triathlons and he and his wife are expecting their first child in late December.

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So-Min Cheong

So-Min Cheong returned this fall after a year of research leave at Stanford completing peer-reviewed articles on coastal change, working on adaptation to environmental change such as coastal and climate change and engaging in the investigation of energy efficiency. One empirical study is on the social consequences of Korea’s oil spill that occurred in December 2007. Transferability of Japan’s energy efficiency to the U.S. is another new area of research in development.

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Jerry Dobson

Jerry Dobson continues to lead Bowman Expeditions in a partnership between KU and the American Geographical Society (AGS) that involves numerous other universities. To date, approximately $2.5 million has been directed toward projects in Mexico (3 years, led by Peter Herlihy), the Antilles Region (2 years), Colombia (1 year), Jordan (1 year), and Kazakhstan (just starting, co-led by Steve Egbert). Each expedition is designed to collect geographic information (open source and unclassified) and conduct geographic research. Topics have ranged from land tenure (Mexico, Jordan) to tourism (Antilles) to violence (Colombia) to transportation (Kazakhstan). Principle investigators can choose their own topics based on the top issues affecting the future of the country or region—economic prosperity, environmental sustainability, political stability, and cultural identity.

Jerry and Steve Egbert continue their research on land mines, minefields, and mine actions funded by the Geneva International Centre for Humanitarian Demining.

Over the past year, Jerry has received two prestigious honors. He was elected as a Fellow of the American Association for the Advancement of Science, and he was recognized by the Cartography and Geographic Information Society (CaGIS) with its first ever Award of Distinction for lifetime achievement.

The Association of American Geographers (AAG) Nominating Committee has picked Jerry to stand for election as one of two candidates for AAG vice president, which usually means automatic promotion to president the next year. This election offers an unprecedented opportunity for cooperation between AAG and AGS, where Jerry has been president since 2002 and there is no term limit. If you are an AAG member, the ballot will arrive in your January 2009 AAG Newsletter. Don’t forget to vote!

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Steve Egbert

This fall Steve Egbert entered his second year as Graduate Studies Director in the department and he says that he is pleasantly surprised to find that he is finding it more and more enjoyable. There are lots of tough decisions that he would rather avoid (just ask Bev!) but he enjoys spending more time working with our graduate students. He also continues to serve on a large number of graduate committees, mostly in EEB and Geology outside the department. One of his own students, Iwake Masialeti, completed his PhD this year and has returned to the University of Zambia to take up a faculty position.

Research continues to offer new interests and challenges. Along with Jude Kastens and Kevin Dobbs of the Kansas Biological Survey, Steve has undertaken a multi-year project to map potential inundation extents in eastern Kansas during flood events. The ultimate goal is to provide on-line decision support tools for emergency managers from the Division of Emergency Management down to the city and county level. He also continues to work with Jerry Dobson and others to provide geospatial education and support for the Geneva International Centre for Humanitarian Demining, and this coming year he looks forward to joining Jerry on a new Bowman expedition to Kazakhstan.

This summer he attended a two-week seminar at the US Memorial Holocaust Museum on the Holocaust in Poland, Ukraine, and Lithuania – an intense educational experience. In this same vein, Shannon O’Lear and Steve put together an entry on Geography of Genocide for the Encyclopedia of Geography and are finishing work on an issue of Space and Polity devoted to geography and genocide. They will be offering a seminar this spring on geography’s role in definitional discussions of genocide.

On the personal side of things, Kathy and Steve celebrated their 35th anniversary this year. Kathy also took up a new position teaching high school biology at Ottawa High School (not the Ottawa in Canada, contrary to what a couple of their elderly friends thought). Teaching six classes of high school biology to freshman and sophomores makes for lots of entertaining stories! Finally, making up for last year’s freeze-out, they had abundant peaches and apples that are now mostly in jars and freezer bags in jams, sauces, juices, dried slices, and pie fillings.

They send their best wishes to everyone.

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**Faculty News**

**Peter Herlihy**

Peter Herlihy spent summer-fall 2008 on sabbatical in Mexico finishing the Bowman Expeditions Prototype of the American Geographical Society (AGS), called México Indígena (MI), to revitalize geographical research in foreign areas scholarship and government. As expedition leader, working with colleague AGS President Jerry Dobson, Peter and his team developed a participatory research mapping-GIS methodology with professors, students, and community researchers from the US, Canada, and Mexico – including J’hayhawkers Derek Smith, John Kelly, Aida Ramos Viera, Andy Hiblum, and Taylor Lappan – for studying Mexico’s gargantuan PROCEDE neoliberal land reform and its impact on indigenous lands.

A July 2008 Geographical Review article details the AGS program and prototype, as does the MI Website (http://web.ku.edu/~mexind/). In recognition of this and his past field research in Latin America, the AGS named Peter the Society’s first “Isaiah Bowman Scholar.”

Peter also co-edited Ethno- and Historical Geographic Studies in Latin America, a book in which he and nearly 20 scholars present essays based on original field and archival research honoring Geographer William V. Davidson, including some of the most distinguished Latin Americanist geographers in the U.S., among them fellow J’hayhawker Bill Woods. Peter continues his posts as Associate Director of the KU Center of Latin American Studies and as Contributing Editor for the Handbook of Latin American Studies at the U.S. Library of Congress.

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**Bill Johnson**

Professionally, Bill has certainly had worse years...five journal articles, some gray-literature reports, and so on. But the best of it is that he has outstanding undergraduate and graduate students around him for inspiration and his continued education. Karen Ohnes, an undergraduate (B.S.-Geology) and class grader, has continued her unfailing commitment to preparing and loading samples for isotope analysis and anything else he asks of her. Another long-time undergraduate lab research assistant is Erin DeLee (B.S.-Environmental Studies), the go-to person on the laser particle-size instrumentation and a Herculean drill-rig roughneck. Most recently, Janelle Wehr (B.S.-Geography) has joined the lab group and has become their resident expert on soil-color determination using the new spectrophotometer. Graduate students in the lab area are going full-tilt: Terri Woodburn turned in her thesis and is developing her Ph.D. research; Mark Bowen is starting the writing stage of his dissertation-based articles; Trish Jackson received a prestigious NSF IGERT fellowship to support her in her Ph.D. program; Ashley Zung has completed her thesis and is formulating her dissertation research; Alan Halfen, who recently joined us from UW-Milwaukee, is starting his dissertation research; and Scott Klopfenstein, who has been working hard on the playas mapping project, is in the early stage of his master’s research into soil carbon sequestration. Lastly, Bill has been re-energized by the recent hiring of Dan Hirmas; he is teaching Bill and others a great deal about soils and cutting edge instrumentation, making this an exciting time for the physical program. Bill has no doubt that Dan is going to make major contributions to the department and to the profession.

On the home front, Claudia and Bill have not been traveling much this year, but they are working on the house, with the intent of finally placing it on the market next spring if the housing market improves at all, and then moving back to Lawrence. They have three children involved in their undergraduate education right now, at KU, Kansas City Art Institute, and Humboldt State University (CA). Of the other two, one is working on a master’s degree (her Brazilian-born husband is earning his Ph.D. at KU), and the other designs exhibits at the Boston Museum of Fine Arts. None of the dogs (Circee, Violet, Max) has died yet, nor has Stinky the cat.

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**Jay Johnson**

It has been 12 years since Jay was last employed at KU as an instructor in the School of Social Welfare and he is glad to be back again to familiar surroundings. He is transitioning from two years on the tenure-track at the University of Nebraska-Lincoln where aside from teaching geography and anthropology courses he co-directed the university's...

FROM LINDLEY
Faculty News

Human Rights and Human Diversity Initiative. At KU, in addition to his full-time appointment in geography, Jay has a courtesy appointment with the Global Indigenous Nations Studies program. This fall semester, Jay has been teaching a jointly listed graduate course, Indigenous Peoples of the World, between the Global Indigenous Nations Studies program and geography department, in addition to Intermediate Human Geography at the undergraduate level. Jay chairs the Indigenous Peoples’ Knowledges and Rights Commission of the International Geographical Union. The Commission is currently working on two special journal editions, one for GeoJournal and the other which Jay will co-edit with Renee Louis and Albertus Pramono for Cartographica. In addition they are planning a Commission meeting on urban Indigenous people’s issues at the University of Saskatoon in 2009.

Xingong Li

Xingong Li eventually got the article on global impacts from sea level rise accepted by PEER last May. The research was supported by CReSIS and is a joint effort with several graduate students and faculty members from the geography department and the Haskell Indian Nations University. Working with Keith French since he was an undergraduate student (now a graduate student) in the geography department, Xingong and Keith extended the cartographic modeling framework into the vector data model, which provides a new approach of spatial analysis in the vector data model. This research was recently accepted by the International Journal of Geographic Information Science. With the support from a KU general research fund and the Big Twelve Faculty Fellowship program, Xingong and Dr. Williams at the University of Colorado Boulder co-authored an article on snowmelt runoff modeling in a mountain watershed in western China. The article was published this year in the Journal of Hydrological Processes. This line of research is currently supported by another KU general research fund, which will further test and validate the snowmelt runoff model in two mountain watersheds in the western U.S. The collaboration with Dr. Tucker in the geography department is also very successful and they are revising an article on warm season precipitation storms in the Arkansas-Red River basin, which was submitted to the Journal of Geophysical Research. It is expected that there will be several more articles coming out from the research in this area. Working with faculty members and graduate students at KU and KSU, they are developing software tools for using NEXRAD precipitation data in non-point source pollution models in large agriculture watersheds in Kansas. A draft manuscript is underway and will be submitted soon to a journal. Collaboration with Dr. Peterson in the KU biology department is very fruitful on several fronts. One article was published and another is under review on biodiversity effects of sea level rise. They are now collaborating on GIS applications in phylogeography and are preparing a journal article with scientists from Canada. The most exciting news of their collaboration is that the Department of Energy will fund their research to study the impacts of sea level rise on U.S. coastal ecosystems. This project will start in April 2009 and Xingong is looking for a new graduate student who is interested in this research. On the family side, Xingong and his wife are having fun and kept busy with their 2-year old son Kevin and fourth-grade daughter Lucy.

George McCleary

Change? We’ve got change … and it has been a moving experience! For those of you who remember the student darkroom (in 219 Lindley) … well, it is now George McCleary’s office. The moving-out / renovation / moving-back activities from May through August were an even greater lack of fun than he could have imagined! In the process he managed to find things that had been missing for years …while, at the same time, losing everything else (including course materials for the fall semester). The Mondays and Fridays at the University Advising Center are never dull, and classes and projects make the Tuesday-Wednesday-Thursday part of the week exciting. The Geography of Wine course is in its eighth version … the class wine this year is a blend, Grenache and Mourvedre. ‘Twixt and ‘tween, there’s map work … maps about genocide and wine, Scout camps, as well as the Spencer Library’s portolan charts (the foundation for “Mediterranean Travel and Trade, 1300-1800”). By the way, the color of the office is “Armagnac” (SW6354) … that’s R192 G142 B102 or CMYK 24-45-65-3 or Pantone 729 (PMS 472). The walls match well with the Thunder Gray book shelves and the Forest Green carpet.

Richard McNulty

During the Spring of 2008, Rich completed the final edit of the third edition of the ATMO 105 laboratory manual, “A Laboratory Guide to Meteorology,” that is now published by Cengage Learning. During the Fall of 2008, he expanded his teaching load to help cover the gap left by Curt Hall’s retirement to include ATMO 105, Introductory Meteorology. Teaching a large lecture class is considerably different than teaching a small class of 25 or less.

David Mechem

In between teaching the dynamics core of the Atmospheric Science curriculum, David has been conducting research on how clouds interact with atmospheric aerosol, which he presented over the summer at the International Conference on Clouds and Precipitation in Cancún, Mexico. His other “cloudy” work includes a soon-to-be-published study of cloud-radiation interactions and a simple scheme to represent how large sea salt particles affect precipitation growth in numerical models. He is beginning collaboration with departmental colleagues on land-atmosphere interactions and questions of regional climate.

David and his family spent the last year getting acquainted with Lawrence and the surrounding area. Standout family activities included sledding down the hill on campus on Christmas day,
Faculty News

exploring sunflower fields, and picking apples and pumpkins in the fall. At the end of September, David took a brisk motorcycle tour of the Flint Hills with some online acquaintances, and in late May the family visited Elizabeth’s parents in Arizona by way of Rocky Mountain National Park and Pike’s Peak. The academic year began anew in August, with daughters Sarah and Vivian starting fourth grade and kindergarten at Sunset Hill Elementary.

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Garth Myers

This has been a busy year as usual for Garth. He went to Tanzania for a month last Summer, finishing up his NSF money and visiting various universities as African Studies Center Director. He presented papers at the IG, MAAAS, and KAG meetings but just sat through meetings at the ASA. Texas A&M and K-State both invited him to give talks there. He published articles in Urban Geography and Geography Compass, and co-authored (with Francis Owusu) the Africa chapter in the 4th edition of the Cities of the World textbook. Garth and his family took a vacation to Alabama, after visiting Arkansas in 2007. Phebe is in 10th grade, and Atlee in 3rd grade. If they only could have voted they could have gotten Barack up to 42% in Kansas.
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Shannon O’Lear

Shannon O’Lear traveled to Yerevan, Armenia, in August with the Kansas National Guard and a group of educators from Kansas to explore potential collaborative links with educational institutions in Armenia. She also gave two presentations on environmental effects of Soviet planning and background on the Caucasus to a Russia-Eurasia Orientation Course at Hurlburt Field Air Force Special Operations Command Center. Following up on the course on Geography of Genocide, Shannon, co-instructor Steve Egbert, and Geography MA student Elizabeth Montgomery-Anderson have had a paper, “Teaching Geography of Genocide” accepted by Geography Compass. Shannon and Steve are also guest-editing a theme issue of Space & Polity focused on genocide which will feature a paper by Geography PhD student Dave McDermott. Shannon also has a chapter titled, “Oil Wealth, Environment and Equity in Azerbaijan” in the book, Justice in Union, published June semester, teaching Geopolitics and Eurasian Security and Geopolitics which she is co-teaching with Mariya Omelicheva in the Political Science Department. Shannon continues her writing on environmental politics, power and scale.
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Pete Shortridge

For better or worse, Pete is now the senior member of the department. Nobody bows down in his honor, but he does enjoy being able to recall the joys of urban field trips with Duane Knos, the boyish face of Dave Simonett, and the strange geography annex building that was Mechanical Engineering North. A sabbatical leave last spring helped to get his Kansas City book project over the hump. He’s up to the World War II period and hopes to finish by summer. Finding new perspectives on a supposedly familiar place keeps the project fun.

Pete continues to carry a sizable load of graduate advisees and saw three of them graduate in 2008: Chris Fertig (sense of place in Vail, Colorado) and Tom Hornbeck (historical geography of Catholicism in Kansas City) with MAs and Henry Way (place and politics in Kansas) with a PhD. On the travel front, he and Barbara explored Andrew Jackson country in Tennessee in June and the Minnesota-Dakota borderland in September. A highlight was Dell Rapids, SD, where outcroppings of Sioux Quartzite interrupt the flow of the Big Sioux River. This same reddish rock is common in the Lawrence area as a glacial erratic.
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Terry Slocum

Terry recently was asked to develop a chapter on the history of thematic cartography in the 20th century for Volume VI of The History of Cartography. Terry has asked another alumnus, Fritz Kessler, to assist in developing the chapter, which will focus on design and construction issues related to thematic mapping. In developing the chapter, Terry and Fritz have found that they will need to write a second paper detailing how the design and construction of maps has changed in academic journals and newspapers. As such, Terry has found that he now has another research focus: history of cartography.

When not at work, Terry and his wife (Arlene) continue their sports activities. They are now in their 15th year of Tae-Kwon-Do and both continue to run 5K races. Arlene presently works at Ft. Leavenworth, which she finds very interesting. A downside, however, is that she has a one-hour commute each way, but she does get to read lots of audio books!
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Donna Tucker

Donna has been working on a project sponsored by Sprint with Profs. Frost and Sterbenz of the Electrical Engineering Department. They are studying the effect of precipitation on wireless communication signals. The frequencies of 70-76, 81-86, and 92-94 GHz are highly attenuated by precipitation but the engineers aim to reroute the signals around the precipitation. This research has led to questions about the size of the average storm and how frequently storms of certain sizes occur. Donna and Xingong Li have investigated some of these questions using the 4.7 km multiple sensor gridded precipitation product put out by the National Weather Service.

Donna has proposed a new course in Aviation Meteorology to be taught entirely online. Look for it Spring of 2009.
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Faculty News

Kees van der Veen
The Fourth Assessment Report issued last year by the Intergovernmental Panel on Climate Change openly acknowledged what many glaciologists, including Kees van der Veen, have known for years: ice sheets do matter! According to the IPCC, the greatest uncertainty in predicting future sea-level change comes from rapidly changing outlet glaciers and ice streams in Greenland and Antarctica. It is now well-documented that these large ice sheets are not the sluggish beasts they were believed to be, adjusting slowly to changes in climate. Instead, the contribution to sea-level rise from the Greenland Ice Sheet almost doubled over the past decade – clearly, if this trend continues, heavily-populated coastal areas will be affected. Kees’ research – which now appears to be relevant with the IPCC endorsement – focuses on understanding the physics behind rapidly-changing glaciers. This involves reconstructing quantitative histories of glacier changes: changes in velocity patterns and ice thickness, and climate forcings. These observations allow him to identify likely causes for unusual glacier behavior. With this understanding, he can develop better numerical models that predict how the Antarctic and Greenland ice sheets will respond to future climate change. Clearly, the IPCC challenge to develop better ice-sheet models is a task that goes beyond what any single investigator can accomplish and must be undertaken by the entire glaciological community. As chair of the Ice Sheet Mass Balance and Sea Level (ISMASS) Expert Group established by the Scientific Committee for Antarctic Research (SCAR), Kees has taken the lead in mobilizing the international community to develop a comprehensive research strategy for the next five years. In July, 2008, they organized a Workshop in St. Petersburg, Russia, bringing together some 50 scientists from around the world and representing the various science disciplines involved. Probably the most important lesson he learned is that it is almost impossible to get such a diverse group of individualists to agree on anything – but, if nothing else, it does give him an excuse to travel.

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Barney Warf
Having joined the KU faculty in the fall 2008 semester, Barney is getting adjusted and learning the ropes; his wife, Santa Arias, is a faculty member in Spanish. Barney teaches graduate and undergraduate courses in human and economic geography, including globalization. He’s impressed with the high quality of KU students and looks forward to expanding the department’s curriculum in human geography.

Barney maintains an active research agenda: in 2008 he published *Time-Space Compression: Historical Geographies* with Routledge, and co-edited, with Santa, *The Spatial Turn: Interdisciplinary Perspectives*. He also published papers in the *Professional Geographer* and in the January 2009 *Annals*, and is working on the new edition of the textbook, *The Global Economy* as well as editing a 5-volume *Encyclopedia of Geography* for Sage. He recently obtained funding for a new project concerning health services exports from Costa Rica.

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Bill Woods
During 2008, Professor Bill Woods’ publications concerning his work with the Amazonian Dark Earth soils included one edited book and 12 book chapters. In addition, he presented 11 professional papers at various venues in Colombia, Costa Rica, Germany, Ireland, Italy, Kansas, and The Netherlands. He was listed in *Who’s Who in America*; served as a reviewer for the National Geographic Society, the National Science Foundation’s Archaeology Program and Geography and Regional Science Program, International Mobility and Promotion of Female Scientists (Austrian Science Fund), *Quaternary Science Review, Leonardo, Journal of Latin American Geography, PEDOSPHERE, Geoarchaeology, Geomorphology, and Human Ecology*, was a member of the Scientific Board of the *Bulletin of the Museu Paraense Emilio Goeldi* and the International Editorial Board of the *Journal of Latin American Geography*; and served as a technical consultant for the National Geographic Channel and *National Geographic Magazine, The Boston Globe, Plenty* magazine, the PBS documentary “Back to the Amazon” produced by Jean-Michel Cousteau’s Ocean Futures Society, the Canadian Broadcasting Company, the Illinois Historic Preservation Agency, and *Gruppe 5*, a film production company in Cologne, Germany. He also was an official collaborator on the *Projeto Terra Preta*, Embrapa Amazônia, Manaus, Brazil, and a member of the Global Mapping Agricultural History Project, Stockholm University, Sweden; and conducted fieldwork in both Costa Rica and Belgium.

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Alumni News 50s

Kasibatla Sita (MA 1959)

I wrote for the Newsletter about three years ago. During the last 2 years, I was associated with the Tata Institute of Social Sciences, in a project funded by the World Bank. It involved an assessment of the Resettlement and Rehabilitation of households displaced by infrastructural projects undertaken in Mumbai, India. This study was completed a few months ago. My elder son, Prasad, who is an Associate Professor at the Nicholas School of Environment at Duke University has been designated as Associate Dean for International Programs of the School. This is part of Duke University's outreach program. Prasad's wife, Susan, teaches at the School of Divinity, Duke Univ. My younger son, Vijay, based in London, is now a Controller, Integrated Project Management with Schlumberger, a well known oil field services company. His wife, Uma, is currently Professor and Chairperson of the School of Development Studies, Univ. of Reading, UK. This summer it was a pleasure to have a family get-together in the UK when we were able to spend quality time with our grandchildren, Anna, Aparajita and Akhilesh.

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Alumni News 60s

Byron Augustin (MA 1968)

After 41 years of teaching at the university level, I plan to retire in 2009. My wife Rebecca and I have purchased a home in Valladolid, Mexico, and will slide south for some tropical weather, sand beaches, and salt-water fishing. We hope to criss-cross the Yucatan Peninsula and try to discover every little interesting nook and cranny as long as our health prevails.

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Donations to the Endowment Association

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If you wish to make a contribution to the Kollmorgen Geography Fund or the George F. Jenks Scholarship Fund, you can send that contribution to the Kansas University Endowment Association, P.O. Box 928, Lawrence, KS 66044-0928 or to the Geography Department. Be sure to indicate which fund on your donation.
Andy Anderson (PhD 1976)

During the past two months, I have been busy in New Mexico providing support to a Harris Corporation client in the classified arena. The effort brings me close to state-of-the-art technology. Las Cruces is a nice small city; good climate, good food, good prices, good scenery, etc. The less expensive cost of living here is very noticeable relative to the level of Colorado Front Range living expenses. All in all, not a bad deal.

deander656@qwest.net

Vern Harnapp (PhD 1972)

I continue to live in Longwood, Florida, a northern suburb of Orlando. After four years here, I am settled in as a Florida resident and have no desire to see snow and cold weather again.

A widower since 2007, I am remarrying December 30th in Lincoln, Nebraska, to high school classmate of 54 years ago, Ruth Kiekhaefer of St. Joseph, Missouri. Our plans are to be "snowbirds" spending summers in Missouri and winters in Florida.

Sorry that KU lost to South Florida and see grandchildren. Twice a year to visit the living relatives family. We still end up in K.C. about twice a year to visit the living relatives and see grandchildren.

gregor-the-great1@earthlink.net

James Huckabay (PhD 1975)

I am chairing the department of geography here at Central Washington University--assuming the position in June of this last summer.

Huckabay@cwu.EDU

Jim Hughes (PhD 1971)

I am halfway through my fourth year of retirement from Slippery Rock University of Pennsylvania. I continue to take college courses for credit. Recently they included classes in Seventeenth Century Dutch Art, Sailing, and American Literature since 1865.

Judy remains involved with the Miss America Pageant system. Our daughter lives in Manhattan and is Editorial Director of Elite Traveler, while her husband is Director of Sales and Advertising for W Magazine.

james.hughes@sr.edu

Don Johnson (PhD 1972)

I and wife Diana, traveled widely in 2008, precariously balancing travels with family and professional involvements while collecting detailed data on, and writing, several books, two titled "The Biomantle" and "How Soils Form". We began the year with data collecting on Catalina Island and Palos Verdes Hills, California during January 30-February 4. We followed this by giving several papers, three with biomantle themes, at the 7th Channel Islands Symposium (Feb. 5-7, 2008, Oxnard CA): "The Green Mountain pisolithic sandy biomantle, Northern Channel Islands: Mainland analogues, AMS dating, and confier floralturbations;" "Why mima mounds dot the mainland but not Channel Islands;" "Unique biofabrics and differentially depauperate biomantles of the California Channel Islands: Prospects and consequences."

Afterwards we kicked back for a week in the Cambria-Big Sur-Carmel-Monterey area, and then proceeded to photograph biomantles and moundfields here and there across western North America. This quest included time in the many-mounded areas of south, central, and eastern Texas, including Padre Island (north and south) and the famed King and Kenedy Ranches -- where Dick Cheney, infamously, shot his hunting buddy.

Upon returning to Champaign, IL we began preparing, with Charles Frederick and Rolfe Mandel (KGS), a guidebook for a mima mound-sandy biomantle field trip for the Geological Society of America and Soil Society of America Joint Meetings in Houston Texas (Oct. 4-9). The preparation involved three more, pre-meeting mound and biomantle trips to Texas. During one, we side-tripped on May 2 to Baton Rouge to help Tony Lewis (KU PhD ’71), his wife Barbara, and their four kids (with their kids) celebrate Tony’s retirement from LSU. We heard there’d be lots of free wine and food -- there was. Among other notable people, Joe Alford (KU PhD ’68) and wife Dee also helped celebrate.

In late September, Diana and I headed back to Texas for the GSA-SSSA Joint meetings, in which Rolfe and I had also earlier organized a symposium -- on mima mounds (they call ’em "pimple" mounds down there). Diana, myself, and five coauthors gave a paper in the symposium titled: "Predictive biodynamic principles resolve TWO long-standing topographic-landform-soil issues: Mima mounds and stonelayers."

The field trip, symposium, paper, and the meetings in general were all successful, Hurricane Ike notwithstanding.

Immediately after the Houston meetings, Diana and I headed our trusty, as yet non-rusty, high-mileage conversion van in the direction of Truro, Cape Cod, Massachusetts, for 2.5 months of halcyon house sitting, dog-caring, R & R, and serious book production, where we are as of this update (late November, 2008).
*Texans call them "sandy mantles," but they are really "sandy biomantles." The difference is great.

djohns@illinois.edu

Joe Manzo (PhD 1978)

Sharon and I are first time grandparents. Charlie Smith is almost five months old and Kara and Sean are doing "new parents" well. So, we spend as much time in Seattle as possible.

manzoj@concord.edu

Great hearts of the students and the professionals that we’ve encountered. I remain on the Board of the African American Heritage Foundation of Wilmington, which is working toward a Museum of African American Life here (we have a building), and I’ve just joined the Board of No Boundaries International, an artists’ colony held every two years on Bald Head Island. Twenty artists from all over the world, Western and Eastern Europe, Latin America, Southwest Asia, East Asia, and one from Ghana, have come to Bald Head to paint, sculpt, and be generally creative for two weeks. When it’s over they have a show with a big party and sell their work. There are a lot of art fans in Wilmington. It’s been great to get to know so many talented people out on the eastern edge of the continent at Cape Fear by Frying Pan Shoals. I pretend to help arrange some of the logistics of the colony and we cook for them too: jambalaya, red beans and rice, and gumbo and otherwise introduce Louisiana culture through Mike’s music (chank-a-chank!). This year each artist produced a painting or two based on the artwork of children from the favelas of southern Brazil. The proceeds of these sales support new homes for the children and their families. It’s a great gig and a nice diversion from homelessness and racial strife, and of course, it’s so geographic. I still live to garden, back ache notwithstanding. Last year, Mike built a greenhouse for me, which has been a great joy. Best to all. Come see us (really).

jbeets@kc.rr.com

Liz Hines (MA 1985)

Here in the sunny South, we’re shivering in Kansas-like weather, well it dropped to 29°F last night. Many students were caught unawares and showed up today in shorts and flip flops! I’m rejoicing in most of the election news, my great relief unshared by many of my neighbors here in Southeastern NC, although we’re a BLUE STATE for the first time since Carter (and bye-bye Liddy Dole). We’ll have an inauguration party with champagne and oysters in January after 8 years of watching fire fought with gasoline. I teach a lot of classes: regional, cartography, planning, food, and race, but I’ve been doing some different things as well. One is offering a field trip class each Spring. Every Friday afternoon we “go and see,” as I learned to do at KU back in the day. We visit an organic farm, a winery, the beach, sites of racial history, sites of good planning and dumb planning mistakes, an art studio, the historic district, and, most astounding, the largest Buddhist Temple (Thai) between Atlanta and D.C., which is smack dab in the middle of Brunswick County’s Green Swamp (the abbot caught a life force vibe there 20 years ago). I’ve been a team member of our regional Ten Year Plan to Eliminate Chronic Homelessness, which led to a seminar on the topic of homelessness. This has been excruciating because of the topic, but uplifting because of the great hearts of the students and the professionals that we’ve encountered. I remain on the Board of the African American Heritage Foundation of Wilmington, which is working toward a Museum of African American Life here (we have a building), and I’ve just joined the Board of No Boundaries International, an artists’ colony held every two years on Bald Head Island. Twenty artists from all over the world, Western and Eastern Europe, Latin America, Southwest Asia, East Asia, and one from Ghana, have come to Bald Head to paint, sculpt, and be generally creative for two weeks. When it’s over they have a show with a big party and sell their work. There are a lot of art fans in Wilmington. It’s been great to get to know so many talented people out on the eastern edge of the continent at Cape Fear by Frying Pan Shoals. I pretend to help arrange some of the logistics of the colony and we cook for them too: jambalaya, red beans and rice, and gumbo and otherwise introduce Louisiana culture through Mike’s music (chank-a-chank!). This year each artist produced a painting or two based on the artwork of children from the favelas of southern Brazil. The proceeds of these sales support new homes for the children and their families. It’s a great gig and a nice diversion from homelessness and racial strife, and of course, it’s so geographic. I still live to garden, back ache notwithstanding. Last year, Mike built a greenhouse for me, which has been a great joy. Best to all. Come see us (really).

hinese@uncw.edu

James Merchant (MA 1973, PhD 1984)

In August I was appointed Director of the University of Nebraska-Lincoln (UNL) Center for Advanced Land Management Information Technologies (CALMIT) where I have been a faculty member for almost 20 years. This year, CALMIT and the UNL Department of Geography were merged under the umbrella of the School of Natural Resources, a cross-campus multidisciplinary unit that spans the College of Arts & Sciences and the Institute of Agriculture and Natural Resources. The combined geography
Alumni News

The 2009 London New Year's Day parade. Anne is excited that her band will where she plays flute in the marching band. Anne is a junior at Lincoln East High School studying in Japan. Our daughter Anne completed his junior year abroad Wesleyan University. Our son Karl just Chemistry Department at Nebraska as an administrative assistant in the home front, Loyola continues to work fellow KU alumnus Steve Lavin. On the faculty now number sixteen, including fellow KU alumnus Steve Lavin. On the home front, Loyola continues to work as an administrative assistant in the Chemistry Department at Nebraska Wesleyan University. Our son Karl just completed his junior year abroad studying in Japan. Our daughter Anne is a junior at Lincoln East High School where she plays flute in the marching band. Anne is excited that her band will soon be flying to England to march in the 2009 London New Year's Day parade.

Joseph Poracsky (PhD 1984)

Well, Portland State University is still here and so am I - 26 years and counting. Given the recent downturn in the economy, I will probably be counting for at least a few more years.

My principal academic interest remains map design, and we have had a couple of interesting projects come out of our Center for Spatial Analysis & Research lately. One is a map/poster of "South Park Blocks - Portland's Historical, Cultural and Educational Center" - a twelve-block long by one-block wide downtown greenspace surrounded by a variety of historical buildings, cultural facilities and apartment buildings. The area has what is probably one of the largest groves of American elms left in the U.S. and the southern four blocks also see duty as Portland State's central quadrangle.

A second project is a map and guide to the “Trees of Laurelhurst Park.” An inventory of the nearly 1,000 trees was performed by a local taxonomist and we compiled a 2-sided, full-color brochure identifying all of the almost 1,000 trees in the park. The park was designed in 1913 by Emanuel T. Mische, Park Superintendent and a former staffer of the Olmsted Brothers landscape architecture firm. The park’s curving pathways and arrangement of trees clearly reflects the Olmsted influence.

I was on sabbatical winter and spring quarters of this year. After 3 months chained to my word-processor I was finally able to pick the lock and my wife, MJ, and I escaped to Italy for 6 weeks. The landscape is beautiful, the food tantalizing, and the people amazingly friendly. The high point was getting to spend 5 days in my grandparents’ hometown in the mountains of Sicily, southeast of Palermo.

In October, my son Rome and his wife Nikki had their first child, Ayden - grandson #3 to go with Kristina and Michael's two boys in Lawrence. Fortunately, Ayden and his parents live just west of Portland, so we get to see them weekly. Next year I’ll write about how successful we have been at spoiling him.

Mark Schwartz (PhD 1985)

I had a chance to visit with Shigeo Takahashi and his wife Tomoko one afternoon while I was in Tokyo attending the International Congress of Biometeorology (the week of Sept. 22, 2008). He sent along this picture Tomoko took of the the two of us (I’m sure you know, but I am the one on the right) while we visited the top of City Hall.

Rob Shapiro (MA 1989)

I must say that 2008 was a better than average year in my book. First, as a baseball fan, living in Tampa hasn’t been easy. But this year we went from worst to almost first and now a few more people can find us on the map. My son Nathan and I attended the 7th Championship! The Jayhawks once again win the National

Stu Shea (MA 1983)

I am now the President of the Intelligence, Security and Technology Group at SAIC. With over 13,000 employees and nearly $3.5B in annual revenues, it is one of the largest providers of support to the intelligence community. I recently celebrated my 5th anniversary as CEO and Chairman of the US Geospatial Intelligence Foundation (www.usgif.org) which attracted 3,700 people to the annual GEOINT symposium. I wish all my KU friends well and hope that the Jayhawks once again win the National Championship!

Shigeo Takahashi (MA 1982, PhD 1989)

The new department, which I am in charge of, started this academic year. We have only freshmen now, but they keep me busy preparing for new courses to offer. Another notable event in 2008 is that Mark Schwartz (PhD 1985) visited Tokyo in September to attend a conference, and we managed to get together. Despite of twenty-year-plus blank, we had little trouble of recognizing each other and spent an enjoyable time in Tokyo.
Alumni News

Craig Campbell (PhD 1993)

I am still at Youngstown State University. I am in my 7th year as Department Chair. It’s a great job - except for assessment stuff. We are currently trying to get renovated a portion of the building's basement for a 3D GeoWall lab which we’ve already purchased and operated. We’ve expanded into a couple of other rooms as well. My son, Justin got married in May in Salt Lake City to a girl from Lehi, Utah and we took our daughter to the LDS Mission Training Center in September. She will be serving in Romania for a year and a half. So we've had a couple of trips to Utah. Besides a trip to Louisville (NCPH) and a couple of trips to Detroit (NCGE), that’s our travel for the year. My best to everyone.

cstevencampbell@sbcglobal.net

Keith Cunningham (PhD 1997)

Spatial Data Research, which I founded in 1993, is still in business with headquarters in Lawrence. SDR employs 20+ staff with offices in three other states. Two years ago, I started a firm called Lidar Logic with an associate in Miami FL. We have a LiDAR (light detection and ranging) patent underway and this past November licensed our LiDAR feature extraction software. This year I have done more consulting with mutual fund managers investing in geo-spatial firms that are publicly traded. And earlier this year, I provided prior-art research to successfully defend AT&T Mobility in a patent infringement suit. I would still love to teach GIS/Geomatics, so any leads would be appreciated.

kcunningham@sdmaps.com

John Dunham (BA 1984, PhD 1996)

I’m now into my fourth year as Cartographic Services Manager for the Kansas Geological Survey, producing geologic maps and geologic GIS data for the KGS. I have three student employees working for me on several mapping projects. We released several new geologic maps during 2008, most notably a new statewide geology map and a large-scale geologic map of the Tallgrass Prairie National Preserve. Though management is a major part of my work, I still enjoy and spend a lot of my time designing and compiling maps, and doing many GIS tasks. I am also fortunate in learning more geology as I go, working on projects with many excellent geologists here at the Survey and others involved in geologic mapping, including KU Geography’s Bill Johnson.

At home, wife Cindy (KU Geography, ’84) and I both ran the Des Moines Marathon in October. I finished in 4:09, with Cindy a few minutes behind me. I don’t know that I’d use the word "fun" to describe it, but it was a great experience. This fall also included yet another trip with fellow KU Geography alum Jerry Whistler to East Lansing, Michigan for a visit with MSU Jayhawk Al Arbogast and family. This year, we got to see the Spartans win a football game, for a change. We also made our annual vacation trip to the Florida panhandle after the marathon, spending time with KU Geography’s Kelly Gregg and wife Karen in Jacksonville, AL on the way. The highlight of that visit was a trip to the Little River Canyon National Preserve near Ft. Payne, with some beautiful scenery, including waterfalls that I wouldn’t have associated with Alabama.

dunham@kgs.ku.edu

Michael Handley (MA 1994, PhD 1996)

I have been working for eight years in a program that integrates newly-arrived refugees into the American economy. For the last year and a half, I have worked specifically with refugees who have physical or psychological disabilities. These includes victims of various totalitarian regimes as well as Iraqis who have been tortured or wounded because of their ties to the American military. It is challenging but always interesting work. On a much different note, I also provide some office support for my wife's architectural practice.

My wife Sue and I live in the "Inner Southeast" district of Portland, Oregon. When people ask that question about "where would you live if you could be anywhere in the world," we have to admit we are already there. We are both serious amateur artists and involved in our local arts communities. I am on the board of the Friends of the Multnomah County Public Library, a grassroots organization that supports and advocates for one of the finest public library systems in the world.

michael5001@gmail.com

Mike Ingram (PhD 1996)

Bonnie and I had another quiet year in Leavenworth, Kansas. Early in the year, I spent a week in Atlanta helping my parents after my father had back surgery. In the summer, I spent a week at the Coast Guard Academy. Being north of New York City was a new experience for me. Bonnie took an annual quilt retreat into Illinois. This year her younger sister who is living in California visited us for a week. Unfortunately, late in the year our last indoor cat of 15 years passed on and the house became eerily quiet. Bonnie finished a house remodeling project she has been working on quite a while and feels real good about that. Thus, we had holiday decorations out just after Veteran’s Day this season. As always, Best Wishes to all!

DrTastee@kc.rr.com

Christoph Karck (MA 1993)

I still reside in Appleton WI. This summer, the whole family embarked on a road trip to Lawrence, first time back since graduating. It was a great time, still a beautiful place and I even had the privilege to meet a couple of my former professors. Will have to come back real soon!

Christophkarck@yahoo.com
Joseph Kerski (MA 1993)

I continue to serve on the Education Team at ESRI in Denver, promoting the use of spatial thinking, geographic analysis, and GIS in teaching and learning. This year I have been fortunate to work in such fantastic places as Tunisia, Taiwan, Turkey, and Germany (in photograph). I wrote a book called “Essentials of the Environment” published by Oxford University Press. I also teach GIS part time at the University of Denver. Fantastic to see KU win the Orange Bowl and the NCAA Men’s Basketball Championship all in the same year!

jkerski@esri.com

Taylor Mack (BA 1989, MA 1992)

I am still in North Louisiana at Louisiana Tech University, in the town of Ruston. My teaching responsibilities include a wide range of geography courses, including Latin America, North America, Cultural, World Regional, Urban, Political, Geography of Popular Culture, Physical, and several others. I am the lone geographer in a department of Social Sciences that also includes Sociology and Political Science. This last year I started work on some research on agricultural change in north-central Louisiana, as well as some urban geography in Tegucigalpa, Honduras. Taking a lot of my time has been serving as the co-chair of the organizing committee planning CLAG NICA 2009, the meeting of the Conference of Latin Americanist Geographers (CLAG) in Granada, Nicaragua, in January 2009. In May 2008, I was also elected as Vice-Chair of CLAG, and still serve as the Secretary/Treasurer of the Latin America Specialty Group (LASG) of the AAG, as well as Editor of the joint CLAG/LASG Newsletter.

tmack@LaTech.edu

Chuck Martin (MA 1985, PhD 1990)

Fresh from a sabbatical year, I returned to Kansas State University this fall for my 19th fall semester. It was a productive year working and living again in Giessen, Germany with my family, but I enjoyed getting back to the classroom in August. Upon my return I also resumed my position as Director of the Natural Resources and Environmental Sciences (NRES) Secondary Major at K-State, a program that had over 100 undergraduate students enrolled at the start of the academic year.

While in Germany, I continued work on the storage of heavy metals along the Lahn River in the central part of the country, returning to resample sites I had first visited in the mid-1990s. As was true during previous visits, I was a Research Fellow at Justus Liebig-Universität, but this time worked closely with faculty in the Department of Soil Science as well as Geography. I also began work in a neighboring watershed on recent valley bottom sedimentation as documented by close-interval changes in the concentrations of Pb and Zn. The sabbatical was funded by a follow-up research fellowship from the Alexander von Humboldt Foundation of Bonn. In addition to the professional benefits, the stay gave our children, now 10 and 14, a chance to attend German schools again and improve their already strong German language skills. Because they have dual citizenship for life, both have the option of living and working anywhere in the European Union.

With the start of the new school year Nicholas began his Freshmen year of high school and Christine entered 5th grade. Both played soccer this fall, Christine for her traveling team and Nicholas on the high school JV squad. Nicholas has passed his mother as the second tallest member of the family, and should overtake me in short order. Sabine remains busy in her position as Program Associate with the Center for Hazardous Substance Research at K-State. In her present capacity as coordinator of the Technical Assistance to Brownfields program, she’s able to travel frequently (which she greatly enjoys!) to destinations from New York City to Spokane, Washington.

cwmgeog@ksu.edu

Severin Roberts (MA 1999)

I’m still working at Grinnell College and we recently added a GIS professor and a human geographer both of whom complement the incredible liberal arts education offered here. I direct the annual fund, the Pioneer Fund, and have the great pleasure of meeting and getting to know an incredible group of people associated with the College.

robertss@grinnell.edu

Amy Rork (MA 1997)

I really don’t have any smashing news to report this year (like I ever do…), but would be happy if you would put in my best wishes to everyone for a Happy New Year!

Maybe next year I can report that I have traveled around the world on The Amazing Race, found a ten carat diamond in Arkansas, hiked the Appalachian Trail, lost weight, started a new business that is wildly successful, met with Obama at the White House and wrestled alligators for a lark.

arork@sunflower.com

Tom Schmiedeler (MA 1985 PhD 1991)

I was promoted to Professor at Washburn University in the spring of 2007. My wife, Barbara Solberg, and I are doing well.

tom.schmiedeler@washburn.edu

Steven Schnell (MA 1994, PhD 1998)

I am still in Kutztown, Pennsylvania, in the geography department at Kutztown University. In summer 2007 (sorry, I forgot to send an update last year), I got tenure and was promoted to Associate Professor. My current research is focusing on community supported...
agriculture and other local economy movements. Other fun stuff includes gardening, cello-playing, and letterboxing. Lisa is involved in several writing projects, including a children's book, essays, and a novel. Marina is now six and in kindergarten, completely obsessed with insects and fairies and mermaids, and reading chapter books entirely on her own. Fiora is three and a half, and in her first year of preschool. She's all about bunnies. Both girls also love dancing and making artwork of all kinds. In combination, the three of them make for a household that is never boring -- and that doesn't even take the crazy Ghanaian cat into account! We had fun as well working to keep Pennsylvania blue this November. In summer 2007, we were able to visit Lawrence for the first time after coming out east, which was a treat - we still miss Lawrence a lot. It was certainly disorienting last year having the Jayhawks contending for a while for a national championship in .... football?! What's up with that? 

schnittl@kutztown.edu

Bjorn Sletto (MA 1999)
I miss Lawrence and KU. I am at UT-Austin, assistant professor in the Graduate Program in Community and Regional Planning, School of Architecture. This is my second year as tenure-track professor. I also direct the dual-degree master's degree program in Latin American Studies and Planning and am affiliated faculty with the Department of Geography.
http://soa.utexas.edu/people/profile/sletto/bj%20C3%20B8rn
http://soa.utexas.edu/crp/crpla/laprogram/

bjornsletto@mail.utexas.edu

Christy Knight Spielman (MA 1997)
We've moved again, this time to Providence, RI. Seth is teaching at Brown Univ. and successfully completed his PhD in Geography from SUNY Buffalo this past spring. In addition to all this we had our second baby, Toby (Eli will be 4 in Feb.). Needless to say, the past year has been quite busy but all is well and everyone is adjusting well to our new home. Rhode Island is an interesting place and I like being able to say I've lived in both the smallest and the least populated states. I'm still putting my GIS and cartographic skills to good use through consulting projects, including mapping and organizing environmental data for New York City and doing the maps for an atlas of literacy and disability of Canada.

cspielman@gmail.com

Janice Sterling (MA 1996)
I am still at USDA-NRCS-NCGC, http://www.nccs.nrcs.usda.gov/, in Fort Worth, TX, since December 2003. So nothing has changed, but I frequently return to KS to see family.

Janice.Sterling@ftw.usda.gov

Hedley Swan (PhD 1995)
Nothing on the professional or academic side of life, being retired I refrain from such activity. But the old instincts are still there. I have visited Kansas a couple of times in the last year including a visit to Greensburg where I used to live. There is plenty there for political and cultural geographers to look at.

The main event for me this year is that I am getting married again, to a lady from Ottawa, Canada, where I lived in the 1970s. This will happen next August. My children will all be grown up by then although none have left home yet.

hedleyswan@onetel.net

George Ulbrick (MA 1996)
George Ulbrick divides his time between rural Douglas County, KS, where he raises sheep, and Santa Fe, NM.

Geowu911@aol.com

Gabby Blair (BGS 2002, MA 2004)
Life is speeding by and going well! Jason (MA'03 Geology) and I are still in Omaha, NE, where he continues to work for the US Army Corps of Engineers as a Geologist. I am fortunate enough to be able to stay at home with our boys Noah (3.5 yrs.) and Miles "Mo" (2 yrs)...Jason always tells people that I am the CEO of Blair Household Engineering as staying home with 2 little boys is a full time job (24/7). Once the munchkins get into school, I will finally put that degree on my wall to work...someday!

blair_jg@yahoo.com

Craig Davis (MA 2001)
Greetings from Sacramento. Not a great deal has changed in our lives in the past year. I am quickly approaching my tenth year at Sacramento City College and we are having a blast raising our soon to be two-year old son Luka. Luka keeps racking up the vacation miles as we again traveled to Belgrade for the summer and also visited relatives in the Midwest and spent a few weeks at the beach in Oceanside, CA. I still keep in touch with some of the Lindley gang from my years at KU. Congratulations to Kirk White and his beloved Philis, condolences to John Banning for the Horns getting locked out of the Big 12 championship game (even though they may still get a shot at the title), a welcome to Josh Artman as he settles in northern California, and most importantly to Jason Shields and his wife on the arrival of their son Coen. I hope this note finds old friends well and I look forward to reading what everyone is up to.

DavisCA@scc.losrios.edu

Jerry Griffith (PhD 2000)
I was awarded tenure and promotion last year in the Department of
Lucius Hallett IV (PhD 2007)

In January of ’08 we welcomed Lucianna Rose Hallett into our little world. She is another bundle of joy but I am being out estrogen’d in my own home. After spending the ’07/’08 academic year at the University of Wyoming, we were happy to accept an Assistant Prof. job at Western Michigan University in Kalamazoo, MI. We have purchased a wonderful old house (one of the benefits of the economic downturn here in MI) and the family is really settling in. Looking forward to seeing many KU folks in Las Vegas this spring.

lucius.hallett@wmich.edu

Michael Noll (MA 1993, PhD 2000)

What a year for sports, study abroad, academics, and family …and then there was something else.

First the Blazers in Valdosta won the NCAA Football Championship (Division II), and then the Jayhawks followed suit in basketball. The Germany Summer Study Abroad Program, which I have been running since 2003, had a record 54 students participate, and miraculously all of them made it back. My new course in “Geopolitics and Ethnic Conflicts” turned out to be more fun than expected, although it certainly proved to be a challenge. Yet, the most interesting experience this year may have been canvassing for Barack Obama’s Campaign for Change. Karen and I got to know parts of our town we would probably never set foot in (certainly not after dark) and we even made phone calls for hours to get people to the polls. Now, never mind that after 18 years in this country I am still a permanent resident and, thus, cannot even vote, but the prospects of having iced tea from Arizona and Mooseburgers from Alaska served in the White House made this “resident alien” panic!

As for the family, we are all happy and healthy, glad to have our jobs, and a roof over our heads.

Merry Christmas and a Happy New Year to all of you!
mgnoll@valdosta.edu

Josh Long (PhD 2008)

The University of Texas Press has agreed to publish my book (based upon my dissertation). It is called “Weird City: Sense of Place and Creative Resistance in Austin, TX.”

jefkrecic@yahoo.com

John Kostelnick (PhD 2006)

I am currently in my second year as an assistant professor in the Department of Geography-Geology at Illinois State University in Normal, IL. I and my wife Ayrin have two girls, Isabelle (5) and Francesca (18 months). We have enjoyed our new surroundings in central Illinois, although we miss being out of Big 12 basketball and football country!

jckoste@ilstu.edu

Jeff Krecic (MA 2007)

Things are going very well for me. I am working for MJ Harden, which is a GeoEye company. I work in the flight department. We have three aircraft, a Piper Navajo with a Digital Mapping Camera, a Cessna 206 with an Airborne Laser Terrain Mapper (ALTM) Gemini LIDAR, and we are in the process of buying a Cessna Conquest and a new camera. I handle the flight planning for the photo missions. I’m also a backup sensor operator (essentially the camera man in the plane). I also help our field surveyor in the field on occasion. It is a great mix of office, airborne and field work.

MJ Harden is based in Mission, KS. Our parent company, GeoEye recently launched an earth imaging satellite, creatively named GeoEye-1. Check out the web site for more information.

http://www.geoeye.com/CorpSite/ products/products/mjharden/

My wife, Leeanne and I live in Olathe, KS.

I hope everyone in the Geography department is doing well. It’s a great group of people and I miss you all.

jeffkrecic@yahoo.com

Michael Noll (MA 1993, PhD 2000)

Wow! What a year for sports, study abroad, academics, and family …and then there was something else.

First the Blazers in Valdosta won the NCAA Football Championship (Division II), and then the Jayhawks followed suit in basketball. The Germany Summer Study Abroad Program, which I have been running since 2003, had a record 54 students participate, and miraculously all of them made it back. My new course in “Geopolitics and Ethnic Conflicts” turned out to be more fun than expected, although it certainly proved to be a challenge. Yet, the most interesting experience this year may have been canvassing for Barack Obama’s Campaign for Change. Karen and I got to know parts of our town we would probably never set foot in (certainly not after dark) and we even made phone calls for hours to get people to the polls. Now, never mind that after 18 years in this country I am still a permanent resident and, thus, cannot even vote, but the prospects of having iced tea from Arizona and Mooseburgers from Alaska served in the White House made this “resident alien” panic!

As for the family, we are all happy and healthy, glad to have our jobs, and a roof over our heads.

A Merry Christmas and a Happy New Year to all of you!
mgnoll@valdosta.edu

Chris Post (MA 2003, PhD 2006)

It has been another good year for Team Post. I accepted a tenure track position at Kent State University last spring. I teach on the Stark campus in Canton, Ohio, where I am Geography Program Coordinator. I’m also a fully-vested member of the KSU Geography Department, working with graduate students and excellent colleagues. Amy and I made the move here last July and one month later became proud parents to Kiera Rose Post. Time has moved quickly since then with diapers needing changed and papers needing graded. But, it has all been wonderful. I continue to work on my book, Ambivalent Memories: Landscapes of Bleeding Kansas and the Civil War on the Western Border for publication by the Center for American Places and the University of Chicago Press in 2010. In the meantime please check out the Geographical Review next spring for my paper on Lawrence’s memorialized landscape for a taste. I still serve as Review Editor for Material Culture and Awards Director for the CGSG. If you would like any information on reviewing a book or for a student who wants to apply for the CGSG annual awards, please let me know. The Cubs tanked in the playoffs (again), but IU and OU are heading towards more bowl games. Hockey is obviously much bigger here than in Georgia, so I look forward to keeping up with it again this season. I feel compelled to say that it was a phenomenal election year and I hope that the goals of increased social, economic, and environmental justice are attained in the coming years. Towards that end, we wish everyone the best of Holidays and their promise of peace and joy there in Lawrence, and throughout our KU Geography community.

cpost2@kent.edu

John Kostelnick

Lucius Hallett IV

Josh Long

Michael Noll

Chris Post

Jeff Krecic

Michael Noll
Lost Alumni

Help! If you know the whereabouts of any of these lost alumni, please send a note to Beverly Koerner or e-mail to koerner@ku.edu or fax at 785-864-5378. Thank you!

- Abedlfattah Abdallah (MA 1981)
- Hamiduddin Ahmad (PhD 1963)
- Carol L. Baxter (MA 1992)
- David D. Daniels (MA 1966)
- Othman A. El-Awshar (MA 1982)
- Chien-ti Huang (MA 1965)
- Sung-Bo Jung (PhD 1985)
- James E. Kellogg (MA 1971)
- Wen C. Lin (PhD 1976)
- Jose del R.S. Loazia (MA 1969)
- Jane MacGee (PhD 1974)
- David K. Myers (MA 1998)
- Margaret Savage North (MA 1961)
- J. Jeffrey C. O'Connell (MA 1998)
- Mary C. Prante (PhD 1997)
- Blaine Ray (MA 2001)
- Rachel Saifullah (MA 2003)
- M. I. Siddiqi (MA 1960)
- Samut Siriburi (MA 1977)
- Keith Topps (PhD 1975)

Updating Your Information

The KU Geography website now has a new Alumni Directory page for alumni information. Simply go to www.geog.ku.edu and click on Alumni News. Then click on Alumni Directory and then information form. After you have entered your information, click Submit at the bottom of the form.

We will be developing an alumni database, so your updated information is important.

If you don’t want to submit an Alumni Directory information form, but would like to receive e-mails directed to our alumni, please send your e-mail address to koerner@ku.edu.

Jason Woods (MA 2006)

I hope everything is going well in Lawrence. I don’t have much to report, but if you want, you can include me in the newsletter. Currently, I’m a coordinator for the Educational Talent Search program at Oklahoma State University. Educational Talent Search is a federal grant program designed to get low income and potential first generation college students through high school and into the post-secondary institution of their choice.

jasonmwoods@gmail.com
Happy Holidays!

www.geog.ku.edu
Department of Geography
University of Kansas

Self Study for 2010 Program Review

APPENDIX I

Faculty CVs and Statements
Departmental Review Statement

David A. Braaten

My research and teaching interests are centered on atmospheric science, geophysical remote sensing, and climate change, especially in polar regions. I have a strong interest in interdisciplinary research and I have several ongoing externally funded research collaborations with faculty in Electrical Engineering and Computer Science (EECS) and Sociology.

My research focus in polar regions began in the early 1990’s with NSF and NASA funded projects that included field work in Antarctica. Since 1999, I have collaborated with Prasad Gogineni (EECS) on ice sheet related projects, and this collaboration has been very successful. It began with a few modest NASA funded projects, which led to the funding of a “Large” NSF Information Technology Research (ITR) project in 2001. This project - Polar Radars for Ice Sheet Measurements (PRISM) – provided $8.7 million for five years to develop new cutting edge technology for ice sheet remote sensing. This project was extremely successful, and enabled the development of a suite of high-performance radar systems that allow us to measure all of the ice sheet parameters required to access ice sheet mass balance. My roles in PRISM were conducting data analyses, leading the outreach activities that included Haskell Indian Nations University and the KU School of Education, and participating in field experiments in Greenland and Antarctica.

PRISM led to a successful NSF Science and Technology Center (STC) proposal that was funded after an intense 2-year competition that involved a pre-proposal, a full proposal and a site visit. KU was one of two Centers selected (from the original 168 pre-proposals), with UC Berkeley selected as the other new STC. The center is called the Center for Remote Sensing of Ice Sheets (CReSIS), and NSF funding is $19 million for 5 years. The center director is Prasad Gogineni and I have taken on the position of deputy director. The goals of CReSIS are to miniaturize the radar systems developed by PRISM, integrate the sensors and antennas onto UAV’s (unpiloted aircraft), carry out detailed measurements of ice sheet regions that are undergoing rapid changes, and incorporate the measurements into ice sheet models. The Center also has education, diversity and knowledge transfer components, national and international academic partners, industry partners, and government partners. The Center has been recommended for an additional five years of funding starting June 1, 2010.

I am leading the KU component of a large collaborative International Polar Year (IPY) project called GAMBIT. The GAMBIT project collected airborne radar data over the Gamburtsev subglacial mountain range in East Antarctica during the 2008/09 Antarctic field season. The airborne mapping also included gravity and magnetic surveys from other collaborators. Little is currently known about this subglacial mountain range (about the size of the Alps) since it is buried under the Antarctic ice sheet and is located in a remote corner of Antarctica near the “Pole of Inaccessibility.” The data collection was a success, and the data are now being analyzed.
I am also a co-PI on an NSF IGERT Ph.D. fellowship program. Joane Nagel (Sociology) led the development of the proposal. The IGERT was funded in 2008 and is called “C-CHANGE: Climate Change, Humans, and Nature in the Global Environment”. It is a 5-year project that is funding 22 Ph.D. students.

My teaching interests in atmospheric science include both quantitative theory-based courses, and introductory courses. The theory-based courses are taught to upper level undergraduate and graduate students, and lately I have taught one of these, air pollution meteorology. In the past I have taught dynamic meteorology and advanced dynamic meteorology. These courses require a strong foundation of calculus, physics, chemistry and computer science, and are generally among the first opportunities students have to apply what they have learned in the numerous prerequisite classes they have taken. My main teaching goals in these courses are for the student to understand where the equations they derive come from (which conservation laws are used), to understand the level of uncertainty built into the equations by the assumptions made in the derivation, to understand the limiting conditions for which the derived equations are valid, and for the student to experience obtaining a numerical solution to a derived equation. In air pollution meteorology, students explore the role of anthropogenic gases in non-urban and urban environments, indoor air, acid rain, and global warming. Lately, I have taught the introductory course, unusual weather. This course is targeted towards non-majors with a wide range majors and academic preparation. Almost universally, the students taking this course have some level of interest in the weather, and want to learn more about the atmosphere and its phenomenon. My goals in this introductory class are to introduce students to important weather and climate related phenomena, and to have them put together the pieces of scientific knowledge (physical, chemical and thermodynamic processes) that explain the phenomenon.

My service includes serving on committees, presenting talks, reviewing manuscripts and proposals, and answering questions from the media and general public. I served on the Kansas Energy and Environment Policy (KEEP) advisory group from 2008 until 2010 after being appointed by then Kansas Governor Kathleen Sebelius.
Curriculum Vitae

DAVID A. BRAATEN

Professor
Geography Department
1475 Jayhawk Blvd.
The University of Kansas
Lawrence, Kansas  66045
Voice: (785) 864-3801
Fax: (785) 864-5378

Deputy Director
Center for Remote Sensing of Ice Sheets (CReSIS)
2335 Irving Hill Road
The University of Kansas
Lawrence, Kansas  66045
Voice: (785) 864-7790

E-mail: braaten@ku.edu

Education

Ph.D., Atmospheric Science 1988, University of California - Davis.
Dissertation Title: Particle resuspension and associated coherent structures in a turbulent boundary layer.

M.S., Meteorology 1981, San Jose State University, San Jose, California.
Thesis Title: Long range transport of visibility reducing pollutants in the southwest U.S.

B.S., Meteorology 1977, State University of New York – Oswego.

Employment

Deputy Director, 2005 - present, Center for Remote Sensing of Ice Sheets (CReSIS), University of Kansas.

Professor, 2006 – present, University of Kansas, Geography Department.
Associate Professor, 1995 - 2006, University of Kansas, Geography Department (Prior to 6/2003, Dept. Physics and Astronomy)
Assistant Professor, 1989 - 1995, University of Kansas, Dept. Physics and Astronomy

Visiting Scientist, 1996-1997, Laboratory for Nuclear and Environmental Chemistry, Paul Scherrer Institute, Switzerland. Academic year sabbatical leave from the University of Kansas.

Postgraduate Researcher V, 1988 - 1989 University of California, Davis, Dept. LAWR.

Meteorologist, 1977-1980, H.D.R., Inc., Sciences Division, Santa Barbara, CA

Courses Taught at the University of Kansas

Introduction to Meteorology      Unusual Weather
Air Pollution Meteorology       Seminar for Seniors
Dynamic Meteorology             Advanced Dynamic Meteorology
Professional Society Memberships

American Meteorological Society          American Geophysical Union
IEEE                                      International Glaciological Society
American Polar Society                    Sigma Pi Sigma

Research Activities

• Deputy Director and co-founder of the Center for Remote Sensing of Ice Sheets (CReSIS) at the University of Kansas. CReSIS was one of two Science and Technology Centers established by the National Science Foundation in 2005. The vision of the Center is to understand and predict the role of polar ice sheets in sea-level change.

• Appointed by Kansas Governor Kathleen Sebelius to serve on the Kansas Energy and Environment Policy (KEEP) advisory group, 2008-2010.

• Co-Principal Investigator of an Integrative Graduate Education and Research Traineeship Program (IGERT) grant from the National Science Foundation: C-CHANGE: Climate Change, Humans, and Nature in the Global Environment.

• Managed the outreach program of the Polar Radars for Ice Sheet Measurements (PRISM) project at the University of Kansas.

• Field experience in Antarctica (seven field seasons) and Greenland (four field seasons).

• Chaired a workshop in 1998 on aviation weather hazards at the University of Kansas sponsored by NSF-EPSCoR, FAA and the U.S. Weather Research Program.

• Designed and deployed an instrumentation system called the Microsphere Dispersal System (MDS) which provides a detailed characterization snow accumulation in hostile polar or alpine environments for periods of up to one year. Used the system to characterize snow accumulation processes in Antarctic regions dominated by katabatic winds. Sponsored a high school teacher and student under NSF’s Antarctic Research Experiences Program.

Current Funded Projects


Collaborative Research: GAMBIT - Gamburtsev aerogeophysical mapping of bedrock and ice targets, NSF, D. Braaten, PI, S. Gogineni, co-PI, $597,000., 10/1/07 – 9/30/11.

Science and Technology Center: Center for Remote Sensing of Ice Sheets (CReSIS), NSF, S. Gogineni, PI, D. Braaten, K. van der Veen, C. Leuchen, co-PI’s, $17,976,000., 6/1/10 – 5/31/15.

Science and Technology Center: Ice Sheets and Sea Level Rise, NSF, S. Gogineni, PI, D. Braaten, co-PI, $19,000,000., 6/1/05 – 5/31/10.

Recent Administrative Committees

Colloquium Committee, 2009-2010
Faculty Search Committees (Geology Dept.) 2007-08
Faculty Affairs Committee, (Geography; Physics & Astro.), 2001 – 2006.
Chair, Faculty Search Committees (Geography Dept.) 2003-04, 2005-2006.

Publications


Gogineni, S., D. Braaten, C. Allen, G. Prescott, and the STC team, 2005: An Introduction to the Center for Remote Sensing of Ice Sheets (CReSIS), Proceedings, Program in Arctic and Climate Assessment (PARCA), Baltimore, MD, 24-26 October, 2005.


Braaten, D.A., 1995: A new technique to provide high time resolution snowpack dating for stratigraphy and chemistry assessments. *Atmos. Environ. 29*, 2535-2539.


Other Publications


Subglacial Mountains with Aerogeophysical Surveys during the IPY. *IGS Symposium – Glaciology in the IPY*, 27-31 July, 2009, Newcastle, UK


Rockey, C.C. and **D.A. Braaten,** 1995: Characterization of polar cyclonic activity and relationship to observed snowfall events at McMurdo Station, Antarctica. *Fourth Conference on Polar Meteorology and Oceanography,* American Meteorological Society, Boston, MA.


I have been a tenure-track professor with a split-appointment in Environmental Studies and Geography since the fall of 2001. I am now an Associate Professor with tenure and became the Director of the Environmental Studies Program in July of 2008. Because of the Directorship, my service to the program and College-level committees has increased dramatically, and my teaching has decreased by half. Below I briefly present my overall interests in teaching, research, and service and how they help to fulfill the mission of Geography and the Environmental Studies Program.

Teaching: My primary teaching responsibility now involves teaching two courses per year. It is important for me to continue serving the Geography department in addition to the environmental studies program. I do this by having EVRN/GEOG 150 Environment, Culture, and Society be a course I teach on a regular basis. The course is designed to give students a number of different frameworks within social sciences and cultural studies to analyze environmental issues/problems and to propose solutions. I rotate this course with upper division courses on environmental issues in Latin America and my graduate-level seminar on Moral Geographies of Environment and Development.

Research: My research is focused on development processes in the Amazon of Brazil, ranging from ecological/biodiversity research, to studies of land-use and land-cover change, to social science-oriented work on social movements. Much of my work is co-authored with specialists. For example, my research on land-use and land-cover change in the Amazon is facilitated by interactions with satellite remote sensing specialists, and my work on social movements is facilitated by interactions with political scientists. A new research program has begun with the winning of a major NSF EPSCoR grant to work with social and natural scientists on climate change and renewable energy alternatives in Kansas. In this work I am finding I can translate much of what I have done in my studies of Brazilian agriculture to Kansas, and this work has facilitated much more regular contact with fellow geographers and environmental studies colleagues.

Service: My service is heavily focused on being the Director of the Environmental Studies Program. Through work at this next level of administration, I have begun to engage with other initiatives that I believe help propel both Geography and Environmental Studies to the fore when discussions arise in college and university-level discussions dealing with people and environment. For example, I am the Chair of the Executive Committee of the Center for Global and International Studies in which the latest proposal for Title VI funding included an initiative for team-taught international environmental studies courses at the graduate level, involving geographers. In addition, I serve on the University of Kansas Sustainability Advisory Board. I have also played a major role in University discussions on teaching sustainability across the curriculum via participation in discussions at the Center for Teaching Excellence.
Nathaniel Brunsell  
Research and Teaching Statement

Understanding the regional impacts of global climate change is becoming increasingly important to help mitigate potential ramifications such as access to fresh water. Trained as a biometeorologist, I approach this issue by focusing on the local interactions between the land surface and the lower atmosphere (the ‘boundary layer’). In particular, I examine the movements of carbon, water and energy through the climate system. The overall question that motivates my research is: what is the impact of land surface heterogeneity on boundary layer processes, in particular the cycling of water, carbon and energy? Specific examples of recent studies include the impact of land cover/land use on turbulence in the lower atmosphere and quantifying the role land surface heterogeneity of vegetation and soil moisture on surface-precipitation feedback processes. I approach these studies using a variety of techniques including remote sensing.

A particularly notable focus of my research has been on surface-precipitation feedbacks, where the focus is on the roles of soil moisture and vegetation within the framework of boundary layer dynamics associated with convective rainfall. I developed a methodology for separating the impacts of soil moisture and vegetation using a 20 year record of AVHRR satellite data combined with gridded precipitation across the globe (Brunsell, 2006). Recently a graduate student and I examined soil moisture dynamics in more detail using regional climate simulations in the central U.S. to assess the physical mechanisms associated with the rainfall events (Jones and Brunsell, 2009). A graduate student using a simple slab boundary layer model coupled to a one-dimensional convective precipitation scheme is continuing this line of research.

Following my interests in surface-precipitation interactions, I developed a methodology for assessing how vegetation responses to rainfall using a combination of wavelet multi-resolution analysis and information theory metrics. I applied this to a MODIS-NEXRAD data set to assess vegetation responses to precipitation forcing in the Missouri Basin (Brunsell and Young, 2008). I then examined the role of satellite spatial resolution on derived evapotranspiration using a soil-vegetation-atmosphere transfer (SVAT) modeling scheme (Brunsell et al., 2008) and applied it to daily precipitation data from the USHCN dataset (Brunsell, 2010).

While attempting to ascertain the responses of vegetation phenology to changes in microclimatic conditions, I have begun to examine the impacts of regional climate change in the central U.S. grasslands. This work has been motivated by an interest in understanding land cover variability in response to global climate change. Therefore, I examined the predictions of the global climate models (GCM) used in the most recent IPCC report in terms of air temperature and precipitation amounts (Brunsell et al., 2010). First, I evaluated the 1950-2000 time period using data from meteorological stations used in the Global Historical Climate Network (GHCN). This was extended to examining the trends for the twenty-first century. The GHCN data was also used by an undergraduate student to examine the changes in drought frequency in the region (Logan et al., 2009). Another student will be using the 20 year AVHRR record to examine to what extent changes in vegetation phenology are already occurring in the region. This satellite record will allow me to examine the role that land use (e.g., irrigation, urbanization and woody-encroachment) plays in the cycling of carbon and water.

This leads directly into my strategies for mentoring of undergraduate students. Being one of only four atmospheric scientists overseeing more than 75 majors, I perform a significant amount of formal advising in terms of coursework and career advising. The door to my office is always open, and I encourage students to come by for any reason. Whether it is to ask a question, discuss a project, or just say hello, I am always available to help. I believe in the power of education and the importance of giving back to the next generation of scientists.
always open, and this leads to a large amount of informal advising of students as well. I try to get students to realize the importance of internships and research projects outside of their normal coursework. This has led me to mentor quite a number of senior undergraduate projects, and being nominated for the KU Undergraduate Research Advisor Award from the KU Honors Program (2009). I have taken several of these students to national conferences to present their research and (in one case a peer reviewed publication) to see the benefit of their labors.

While every student requires their own unique advising method, my general approach to working with Masters students is to give them two things: 1) a skill set with which they can become employed and 2) the scientific framework to pursue a doctorate degree should they desire. For Ph.D. students, I attempt to have them learn to function in an independent manner and gather research experiences in a number of other small projects along the way to completing the dissertation. During their first semester, the student completes a proposal with a scientific question that will evolve into a paper/thesis chapter. This strategy serves several purposes: it encourages the student to realize the nature of science as a methodology for questioning the natural world; introduces the student to the realities of scientific research; and, aids the student in deciding their future career path. Along the way, I encourage the student to present at national conferences. To date, I have had one graduate student who, besides completing her Masters degree, completed several peer-reviewed publications, graduated with departmental honors, and, besides other awards, won the College of Liberal Arts best thesis award.

My general approach to teaching is to stress an intuitive understanding of the science governing climatology and the interdisciplinary aspect of the subject. This form of pedagogy includes a fundamental understanding of how to do science through a framework that unites an understanding of mathematical theory, the role of modeling, and the importance of fieldwork and observations. Fundamentally, intuition is built by thoroughly understanding the math and physics underlying our view of the world, but realizing that students often lose track of the physical meaning when deriving equations. Therefore, I attempt to stress why the equations are the way they are, what they say about our view of the land-atmosphere system, and what assumptions were made in the derivation of the equations. To achieve this result, I typically assign homework problems that involve derivation and calculations. Whereas on the exams, I attempt to ask broad questions that entail few calculations, but require more synthesis of knowledge. Following exams, I allow students to make up a portion of the points they miss by redoing the exam as homework. This approach provides several benefits, most important being the reinforcement of the topics on the exam. By doing this, students cannot simply get through the exam, put it in a binder and never look at it again. They are forced to re-evaluate the exam questions.

In order to stress the role of observations and fieldwork, I involve my students in field work at the Konza Prairie and the KU Nelson Environmental Study Area as well as incorporating results from my research into all of the courses I teach. I feel that the fieldwork allows valuable intuition for the 'real' world and provides students with a sense of how some of the assumptions made during derivations may not be applicable. In addition, the students are forced to deal with issues involved with data collection and analysis. Along the same lines, I have recently begun incorporating more research into the undergraduate curriculum. In my Remote Sensing of the Atmosphere course in the Spring, we now devote the semester to investigating the role of land cover change on atmospheric properties. In the end, I believe that the students learned more about the nature of scientific research (even those not interested in pursuing research careers) and how we go about solving problems than they normally would have through traditional homework problems and in class exams.
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, 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
Assistant Professor, 2004 - Present
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


PEER-REVIEWED PUBLICATIONS
Submitted
† indicates a graduate student, ‡ indicates an undergraduate student co-author

Brunsell, N. A., J. M. Ham and K. A. Arnold†: 2010, Validating remotely sensed land surface fluxes in heterogeneous terrain with large aperture scintil-


**Published/In-press**


Invited Presentations


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

Conference Proceedings and Presentations


information theory approach to assess scaling of evapotranspiration. CUAHSI Biennial Colloquium on Hydrologic Science and Engineering, 14-16 July, Boulder, CO.


[17] **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.


[9] **Brunsell, N. A.**: 2005, Quantifying the dominant time scales of land-surface precipitation feedbacks. AAG Annual Meeting, 5-9 April, Denver, CO.


Non-peer reviewed publications


Funding

Currently Funded Projects


Previously Funded Projects


Service

National


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).

Conference Chair/Organizer: 29th conference on Agricultural and Forest Meteorology, 1-6 August 2010, Keystone, CO.


Session chair: “Areal flux averaging measurements and methods” at the 28th Conference on Agricultural and Forest Meteorology, 28 Apr-2 May 2008, Orlando, FL.


University

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

College

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

Department

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

Teaching Experience

Courses

Atmospheric Science 731: Atmospheric Turbulence, Spring 2009, 2010
Atmospheric Science 697: Senior Seminar, Fall (2004-2006, 2009)
Atmospheric Science 606: Forecasting Practicum, Fall (2004-2006, 2009)
Atmospheric Science 607: Forecasting Intern, Fall (2004-2006, 2009)
Environmental Studies 720: IGERT, Climate and Borders, Fall (2009)
Geography 531/731: Land-Atmosphere Interactions, Spring 2005, Fall 2007
Geography 104: Introduction to Physical Geography, Spring 2007, Fall 2007
Honors 190: State of Fear: Assessing Climate Change, Fall 2006

**Short Courses**

State of Fear: Assessing Climate Change. Duke Talent Identification Program, 2007 (Weekend course for junior high school students at the University of Kansas).

**Advising**

**Graduate Major Advisor**

**Current**

Y. Zheng - PhD, Dept of Geography, KU
P. L. Lin - PhD, Dept. of Geography, KU
F. V. Cochrans, MA, Geography, KU
T. L. Buck - MS Atmospheric Sciences, Dept. of Geography, KU (anticipated 2010)
M. Petrie - MA, Dept. of Geography, KU (anticipated 2010)
D. Huber - MS Atmospheric Sciences, Dept of Geography, KU (co-chair with D. Mechem)

**Former**


**Graduate Committee Member**

T. Brown - MS, Dept. of Civil, Environmental and Architectural Engineering (2006)

**Undergraduate Research Advisor**

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

**Professional Organizations**

American Geophysical Union
American Meteorological Society
Reviewer

Proposals

National Science Foundation

Manuscript Reviewer

Individual Faculty Statement

So-Min Cheong  
Assistant Professor  
Dept of Geography

Research  
My research meets the research goals of the department in the pursuit of the human dimensions of environmental change and regional studies in East Asia. My peer-reviewed publications in the areas of human-environment interactions in the coastal zone, coastal adaptation to climate change, social consequences of the Hebei-Spirit oil spill, and fisheries resource depletion and community resource management in Korea fit well with the main research themes of the department. The department’s emphasis on translocal research collaboration is well reflected as I engage in co-authored papers with land change scientists, human-environment interaction modelers, coastal adaptation and climate change experts, and the IPCC special report lead authors. In addition, I work on collaborative research with Johns Hopkins University on a recent NSF Water, Sustainability, and Climate proposal, with Boston University on a joint NSF Geosciences/Geography grant regarding coastal erosion and protection, and coastal industry adaptation strategies with Stanford University and the Rand Corporation. I also actively participate in national conferences such as AAAS and AAG, and hold invited talks at universities and environmental organizations. They reveal my research to others as well as inform people of the department and university strengths and capacities.

Teaching  
I have both service courses and courses directly related to my research areas. Service courses I teach for the department and the university are a large lecture course, GEOG 100 World Regional Geography, GEOG399 East Asia as a required course for the Center for East Asia, and GEOG 762 Qualitative Methods. Research-related courses I taught are ENVN420/GEOG571 Vulnerability and Adaptation and GEOG 980 Science and Policy (offered once). They aim to meet the goal of the department to link research and teaching. Advising numerous undergraduate students and 9 graduate students as a committee member contributes to the department’s goal of producing the leaders of the society.

Service  
I serve at all levels. I have served on department committees such as Faculty Affairs, Undergraduate, Curriculum, and Outreach, and participated in various university service functions that include several centers and programs. Nationally I organize symposiums and sessions and serve as a NSF panel reviewer. Internationally I volunteer as a lead author for an IPCC special report on extremes. These services align well with the department's aspiration to outreach and benefit the society at large.
SO-MIN CHEONG

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University of Kansas
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Lawrence, KS 66045

office 785-864-1836
email somin@ku.edu

ACADEMIC APPOINTMENTS

2005-present  Assistant Professor, Geography, University of Kansas
               affiliated faculty, Center for East Asia Studies, University of Kansas
               affiliated faculty, Environmental Studies program, University of Kansas
               affiliated faculty, Center for Global and Int’l Studies, University of Kansas

2007-2008    Stanford University, Biology and the Woods Institute for the Environment

2002-2005    Visiting Assistant Professor, Geography, Texas A&M University

EDUCATION

12/2001    Ph.D.  Geography, University of Washington, Seattle, WA
1996      M.A. Marine Affairs, University of Washington
1996      M.A. International Studies, University of Washington
1993      M.A. Korean-English Translation and Interpretation, Hankuk University of
          Foreign Studies, Korea
1991      B.A.  English, Yonsei University, Korea
1989-1990  Exchange Student, Reed College, Portland, OR

CURRENT RESEARCH

•  Human Dimensions of Environmental Change
•  Marine Policy
•  Vulnerability and Adaptation
•  Institutions, Governance, and Community

PUBLICATIONS

Refereed Articles

In Progress

Forthcoming


Published


Referred Conference Abstracts and Proceedings


Technical Reports

RESEARCH FUNDING
2010 Ministry of Land, Transport, and Marine Affairs, Korea ($30,000)
2010 Korea Foundation Field Research Fellowship
2009 General Research Fund, University of Kansas ($7,987)
2008-13 NSF IGERT: C-CHANGE: Climate Change, Humans, and Nature in the Global Environment ($3,200,000) (Participating Faculty, PI: Joane Nagel)
2008 Forging Resilience: The Case of the Hebei-Spirit Oil Spill in Korea, The Academy of Korea Studies ($9,500)
2007 Supplementary Salary Funding Award, College of Liberal Arts and Sciences, University of Kansas
2007 Maritime Boundary Delimitation in the Yellow Sea and East China Sea, Korea Ocean and Research Development Institute ($32,000)
2007 Coastal Setback Guidelines and Wetland Mitigations in the U.S. West Coast. The Korea Maritime Institute ($21,000)
2007 General Research Fund, University of Kansas ($4,463)
2006 New Faculty General Research Fund, University of Kansas ($8,000)
2005-present CLAS Travel Awards, CEAS, KUCR Travel Grants, University of Kansas
2000 Andrew Mellon Foundation, University of Washington ($5,000)

Teaching Support
2009 Internationalizing the Courses, International Program, University of Kansas ($850)
2006 Best Practice, Center for Teaching Excellence, University of Kansas ($700)

Pending
NSF Water Sustainability and Climate: Collaborative Research: Water Quality Change, Human and Natural Responses. ($5,000,000)

TEACHING EXPERIENCE
- GEOG 571/ENVN 420: Vulnerability and Adaptation
- GEOG 980: Science and Policy
- GEOG 399: Topics in Regional Geography: East Asia
- GEOG 399: Topics in Regional Geography: Korea
- GEOG 571: Economy and Environment: East Asia
- GEOG 552: Qualitative Methods
- GEOG 100: World Regional Geography
- GEOG 201: Introduction to Human Geography
- GEOG 204: Economic Geography
- GEOG 306: Introduction to Urban Geography
- GIS Workshop (Teaching Assistant)
- Urban GIS (Teaching Assistant)
- Physical Geography (Teaching Assistant)

INVITED WORKSHOPS

2010  IPCC Special Report on Managing the Risk of Extreme Events and Disasters to Advance Climate Change Adaptation. Second Lead Author Meeting, Hanoi, Vietnam
2009  IPCC Special Report on Managing the Risk of Extreme Events and Disasters to Advance Climate Change Adaptation. First Lead Author Meeting, Panama City, Panama
2009  Natural Hazards Research and Applications Workshop (not by invitation), University of Colorado, Broomfield, CO
2009  Dokdo Research Institute, Northeast Asian History Foundation, Washington, D.C.
2008  Behavior, Energy, and Climate Change Conference, Precourt Institute, Stanford University, UC California CIEE, ACEEE. Sacramento, CA
2008  Tough Choices: Land Use under the Changing Climate Conference, German Ministry of Education and Research (BMBF), the German Research Foundation (DFG) and the US National Science Foundation (NSF), Berlin, Germany
2007  Ecosystem Services Conference II, the Gund Institute of Ecological Economics, University of Vermont
2006  Ecosystem Services Conference I, the Gund Institute of Ecological Economics, University of Vermont
2000  Workshop on Integrated Oceans Management in the APEC Region, Marine Resources Conservation Working Group (MRC), APEC. Vancouver, Canada

INVITED TALKS

2009  Dokdo Research Institute, Northeast Asian History Foundation, Washington, D.C.
2008  Department of Biology, Conservation Science Meeting, Stanford University
2007  Department of Anthropology, Stanford University
2007  Association of Pacific Coast Geographers, Long Beach, CA
2007  Korea-China Marine Environment Symposium, the Ministry of Maritime Affairs and Fisheries (MOMAF), Seoul, Korea
2006  Department of Geography, University of North Carolina, Chapel Hill
2006  Department of Geography, University of Kansas
2003  Department of Geography, Texas A&M University
2001  International Workshop on Marine Transportation, Regional Trade, and Environment in the North Pacific Rim, University of Washington
1999  Jackson School of International Studies Outreach Program, University of Washington
1999  Korea-U.S. Marine Policy Forum, University of Rhode Island
1998  School of Marine Affairs, University of Washington

CONFERENCE PRESENTATIONS

2010  Annual Meeting of the American Association for the Advancement of Science (AAAS). San Diego, CA
2008  Annual Meeting of the Association of American Geographers (AAG). Boston, MA
2006    East Asian Seas Congress, Partnerships in Environmental Management for the Seas of East Asia (PEMSEA), Haikou City, China
2006    Annual Meeting of the Association of American Geographers (AAG). Chicago, IL
2006    Annual Meeting of the American Association for the Advancement of Science (AAAS). St. Louis, MO
2005    Land-Ocean Interactions in the Coastal Zone (LOICZ) II Inaugural Open Science Meeting. Egmond ann Zee, Netherlands
2005    Annual Meeting of the Association of American Geographers (AAG). Denver, CO
2005    Annual Meeting of the American Association for the Advancement of Science (AAAS). Washington, D.C.
2004    Annual Meeting of the American Association for the Advancement of Science (AAAS). Seattle, WA
2002    Annual Meeting of the Association of American Geographers (AAG). Los Angeles, CA
2002    Asia-Pacific Economic Cooperation (APEC) Oceans Ministerial Meeting, Seoul, Korea
2001    Annual Meeting of the Association of American Geographers (AAG). New York, NY
2000    International Geographic Union (IGU), Seoul, Korea
1999    World Congress on Coastal and Marine Tourism, Vancouver, Canada
1999    Annual Meeting of the Association of American Geographers (AAG). Honolulu, HI

PROFESSIONAL SERVICES

University Services
2009-2010 Faculty Affairs Committee, Geography, University of Kansas
2008-2009 Outreach Committee, Geography, University of Kansas
2006-2007 Undergraduate Committee, Geography, University of Kansas
2005-2007 East Asia Library Committee, University of Kansas
2005-2006 Curriculum and Outreach Committee, Geography, University of Kansas

National Program Panel Review
2009 NSF IGERT (2)

Service to International Scientific Community
2009-2011
Lead Author, Chapter 5, IPCC Special Report on Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation

Synergistic Activities
2010 organizer. AAAS Annual Meeting, San Diego, CA: Coastal Adaptation
2008 co-organizer, AAG Annual Meeting, Boston, MA: Land Change and Community Adaptation
2006 organizer, AAAS Annual Meeting, St. Louis, MO: Matching Scales: Human-Ecological Interface in the Marine Ecosystem
____ co-organizer, AAAS Annual Meeting, St. Louis, MO: Space Matters! Spatial Dimensions of Complex Interactions between People and the Natural Environment
2005 organizer, AAG Annual Meeting, Denver, CO: Ecological Economics and Geography
2004 organizer, AAAS Annual Meeting, Seattle, WA: Integrating Social and Natural Sciences: The Case of the Coast
2002 assistant organizer, APEC Oceans Ministerial Meeting, Seoul, Korea: Ocean Governance
2001 organizer, AAG Annual Meeting, Los Angeles, CA: Intersection of Tourism and Natural Resource Sectors

*Journal Manuscript Reviews*

*Consulting*
2002 Ministry of Maritime Affairs and Fisheries, Korea
Task: Conducted research and writing up reports on marine environmental protection and integrated coastal management for APEC Oceans-related Ministerial Meeting

**PROFESSIONAL MEMBERSHIP**

AAG (Association of American Geographers)
AAAS (American Association for the Advancement of Science)
RESEARCH INTERESTS AND TEACHING PHILOSOPHY

I would like to be evaluated as a geographer who helped develop geographic information systems (GIS) and geographic information science (GISci) from its beginnings in the 1970s and who continues to be a leader in promoting and advancing GIS today. More than that, however, I view myself as an integrative scientist who truly believes in the value of spatial evidence and logic and who uses GIS to conduct interdisciplinary research.

Research Interests:

Topically, I will continue to focus on populations at risk due to all types of global threats to local places. I am particularly concerned with GIS as a means of simulating threats, identifying populations at risk, and supporting the decision-making process for predicting, preventing, and responding to natural disasters, wars, terrorism, and technological accidents.

My primary research interest is methodological, focusing on the advancement of geographic methodology and theory through development and use of geographic information systems (GIS). Geography is the most integrative of disciplines, and GIS provides a means through which our knowledge and skills can be shared with other disciplines. For more than a century, science has been dominated by the concept of the microscope. The scientific community has sought more and more detail about everything. However, in the process of gaining more detail, integration has suffered through neglect. Now with remote sensing and GIS, we have, for the first time in history, a rudimentary macroscope. I view myself as one of many researchers and developers, who are relentlessly advancing the macroscope by improving space, time, entity, and process linkages; extending GIS to the third dimension; and better representing time. If the macroscope is as powerful as the microscope and telescope [and I believe it will be], we can expect it to generate revolutionary new theories in rapid succession just as those earlier inventions did. Many conventional theories—developed in isolation by specialized disciplines with little thought for geographic relationships, spatial logic, or integration—have stood unchallenged for decades. The time is right for geographers and geographic information scientists to enter the fray, and we have much to offer. The challenge will be to make ourselves heard and yet to avoid alienating other disciplines to the point that dialogue is impeded.

Prior to the Renaissance, geography was a preeminent science. Then, specialized disciplines led to such an explosion of knowledge that no one person could grasp a significant portion of the whole. For two centuries, geographers were forced to choose between three unsatisfying options:

• Those who wanted to cover large areas were limited to coarse information, often perceived by others as merely generalities (e.g., global climate classifications, regional landform patterns).
• Those who wanted to deal with fine detail were limited to such small areas that their idiographic observations had little nomothetic value (e.g., detailed geographies of towns or small cities).
• Those determined to deal with both large areas and fine detail were limited to tightly focused topical specialties (e.g., transportation geography, rural settlement geography). For most of the Twentieth Century, topical specialization was the most successful strategy.

Today, GIS is restoring some of the holism of the past. Individual geographers are able to integrate larger portions of interdisciplinary knowledge. This is where the future of science lies, and this is where I place my research emphasis for the future.
Teaching Interests and Philosophy:

I have thoroughly enjoyed teaching at elementary, college, and graduate levels. My preference is for advanced graduate seminars in geography or geographic information science.

My goal is that each student will leave each of my courses with a revolutionary new view of geography. In particular, I lead them to contemplate the myriad ways in which geography is practiced, mostly unrecognized, throughout science and society. I prepare them to function in a new milieu in which many of these functions will be formalized through widespread adoption of GIS. I help them to understand how geographic information systems (GIS) and geographic information science (GISc) can improve science and how the likely will impact society for better or worse. Geography, in the form of GIS, is diffusing throughout society regardless of what we do. My role is to teach students how to channel that diffusion in productive ways that improve human welfare, while avoiding misapplications and abuses that hurt human welfare.

Society is never more than one generation away from a new Dark Age, if we simply do not pass on what we know from one generation to the next. Thus, educators must preserve as much knowledge as possible from the past, convey as much knowledge as possible to the next generation, and create new knowledge to meet changing needs. It is this latter function that integrally couples research with education.

I am a devout geographer, with strong personal views about geography’s vital role in science and society. I believe geography, like mathematics and language, should be an integral part of every student’s curriculum, not for its content but for its methods and perspectives. Geography has suffered in academia primarily because it does not fit the usual organization of disciplines. Most disciplines are organized by topical content. Geography, in contrast, is defined by its focus on the spatial dimension, much as history is defined by its focus on time. Spatial intelligence is as fundamental as linguistic or mathematical intelligence.

I typically combine expository lectures with highly interactive classroom discussion. I insist that students be active seekers of information rather than passive recipients. I encourage such habits through frequent research assignments ranging from semester term papers down to daily “look-up” questions.
JEROME E. DOBSON  
Professor of Geography  
University of Kansas  

VITA  
March 10, 2010

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University of Kansas  
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Lawrence, KS 66045  

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CURRENT AFFILIATIONS

University of Kansas (2001-present)  
Professor, Department of Geography (2003-present)  
Chair, Outreach Committee, Department of Geography (2008-2009)  
Restricted Research Committee, Member (2005-2009)  
KU-Ft. Leavenworth Advisory Committee, Member (2004-present)  
Research Professor, Kansas Biological Survey (2001-2003)  
Adjunct Professor, Department of Geography (2000-2001)

American Geographical Society, President (2002-present)  
Councilor (1997-2002)  
Director of Exploration (1999-present)  
Fellow (1997-present)

National Academy of Sciences  
Jefferson Science Fellow (in perpetuity, starting 2009)

U. S. Department of State  

American Association for the Advancement of Science, Fellow (elected 2007)

Royal Geographical Society, Fellow (2004-present)

Association of American Geographers  
Great Plains/Rocky Mountain Division, Chair (2009-present), Vice Chair (2008-2009)  
Honors Committee, Member (2005-2008), Chair (2007-2008)  
Long Range Planning Committee, Member (2000-2004)
Program Committee, Member (1994-1995)

**Geographic Information Systems Specialty Group, Chair** (1990-1991)
   Vice Chair (1989), Board of Directors (1987-1989)

**Energy Specialty Group, Co-founder and First Chair** (1979-1982)
   Director (1982-1984)

 Southeastern Division, Professional Careers Development Committee, Chair (1980)

**Sigma Xi** (2004-2009)

**University Consortium for Geographic Information Science,**
   **Lead Delegate** for KU (2001-present)
   **Chair, Interim Research Committee** (1994-1995)

**PREVIOUS AFFILIATIONS**

**Haskell Indian Nations University,** National Science Foundation, Tribal Colleges and University (TCUP) Keystone Grant, **External Advisory Committee, Member** (2005-2008)

**Oak Ridge National Laboratory** (1975-2001)
   **Distinguished Research & Development Staff** (2001)
   Geographic Information Science and Technology Group, Computational Physics and Engineering Division
   Senior Development Staff (1996-2001)
   Senior Research Staff (1990-1996)
   Research Staff, Computing and Telecommunications Division (1984-1990)
   Leader, Resource Analysis Group, Energy Division (1979-1984)
   Research Staff Member, Energy Division (1976-1979)
   Consultant (1975-1976)

**GeoWorld** (formerly **GIS World**) Magazine
   **Contributing Editor** with Regular Column,"The G in GIS" (1990-2004)
   **Board of Directors** (1990-1997)
   **Scientific Editor, GIS World Sourcebook,** 1991-1996


**National Center for Geographic Information and Analysis, Varenius Board** (1997-1998)
National Center for Environmental Decision-making Research (funded by the National Science Foundation), Research Team Leader for Information Infrastructure (1995-1997)

Kansas State University, GIS Steering Committee, Outside Member, 2004-2008.

Roane State Community College, Advisory Committee on Geographic Information Technology (1996-1997)


National Committee for Digital Cartographic Data Standards, Steering Committee (1985-1993)

Applied Geography Conferences
  Steering Committee (1986-1991)
  Co-Director of Conference (1990)
  Co-Host of Conference (1987)

Geographical Information Systems/Land Information Systems Conference (GIS/LIS Conference), Program Committee (1988)


Arizona State University, Department of Geography, Visiting Associate Professor (Fall Semester 1983)


International Geographic Information Systems Symposium, Program Committee (1987)

University of Tennessee, Department of Geography, Graduate Teaching Assistant (1971-1974)

University of Georgia, Department of Geography, Graduate Teaching Assistant (1968-1971)

Cherokee County, Georgia, Elementary School Teacher (1968-1969)

Governor’s Task Force on Education for Loudon County, Tennessee, Chair (1985-1986)

Hospital Advisory Committee, Loudon County, Tennessee (1987)
HONORS AND AWARDS


Jefferson Science Fellow awarded by the National Academies (National Academy of Sciences, National Academy of Engineering, Institute of Medicine, and National Research Council) and United States Department of State (in perpetuity, starting 2009).

Award of Distinction conferred by the Cartography and Geographic Information Society (CaGIS) (2008). This is the first Distinguished Career Award for Lifetime Achievement ever granted by CaGIS, and the honor will be repeated only at two-year intervals.

Elected Fellow of the American Association for the Advancement of Science (2007).

Special Achievement in GIS Award, 26th ESRI Users Conference (2007), Awarded to the AGS Bowman Expeditions for work conceived and led by Dobson.

Special Achievement in GIS Award, 26th ESRI Users Conference (2006), Awarded to the Geneva International Centre for Humanitarian Demining, for Work Involving FGM Corporation and KU.

Applied Geography Conference Citation Award (1991).


EDUCATION

Ph.D. in Geography, University of Tennessee (1975)

M.A. in Geography, University of Georgia (1972)

A.B. in Geography, University of Georgia (1967)

A.A., Summa Cum Laude, Reinhardt College (1965)

MAJOR PUBLICATIONS
Refereed Journal Articles:


**Refereed Monographs and Reports:**


**Invited Cover Story (350,000 circulation worldwide):**


**Invited Journal Articles, Books, and Book Chapters:**


8


**Congressional Testimony, Invited by Representative Albert Gore, Jr.:**


MINOR PUBLICATIONS

Commentaries and Replies:


Magazine Articles:


**Book Reviews:**


**Encyclopedia Entries:**


Editorials:


**Conference Proceedings:**


**Ph. D. Dissertation:**

20

M. A. Thesis:


Project Reports:


**SELECTED GRANTS AND CONTRACTS**


Department of Defense, Defense Threat Reduction Agency, Oak Ridge National Laboratory, LandScan Demographics, LLC. “Casualty Estimation,” J. E. Dobson, S. Campbell (LandScan Demographics, LLC.), P.I.s, R. W. Peplies (East Tennessee Statue U.), Co-P. I., 2/1/02-8/8/02, $16,750, Funded; 9/1/02-10/04/03, $76,298.


North Atlantic Treaty Organization (NATO), Oak Ridge National Laboratory, LandScan Demographics, LLC. “Support to Operation Able Ally,” J. E. Dobson, S. Campbell (LandScan Demographics, LLC.), P.I., J. J. Feddema, Co-P. I., 9/1/02-8/30/03, $60,000.


Department of Defense, “LandScan Global Population Project,” J. E. Dobson, P.I., E. A. Bright, P. R. Coleman, Co-P.I.s., 10/01/97-8/17/01, $2,120,000.
Department of Energy, Hazardous Materials Transportation, Defense Programs, “LandScanUSA: Houston Prototype,” J. E. Dobson, P.I., E. A. Bright, P. R. Coleman, Co-P.I.s, 1/30/01-8/17/01, $70,000.

Environmental Protection Agency, National Center for Environmental Assessment, “LandScanUSA,” J. E. Dobson, B. L. Bhaduri, P.I.s, E. A. Bright, P. R. Coleman, Co-P.I.s, 1/01-8/17/01, $120,000.


**SUMMARY OF GRANTS AND CONTRACTS 1975-1997**

For 26 years, I worked at a national laboratory where all research is dependent on grants and contracts. As a group leader and project leader I served as P.I. or Co-P.I. on federally funded projects covering myself and two to ten colleagues per year. My responsibility was to design and promote new research initiatives and to lead ongoing projects. Throughout that time, I was one of two principal staff members responsible for financial support of groups ranging from 10 to 40 people. At current FTE rates, my career total prior to 1997 thus amounts to a conservative estimate of more than **$20,000,000 in projects** funded by:

• Department of Energy
• Nuclear Regulatory Commission
• Department of Defense
• Department of State
• National Oceanic and Atmospheric Administration
• National Science Foundation
• Environmental Protection Agency
• Department of Interior
• Water Resources Council
• Other federal agencies.
SELECTED PREsentATIONS


“The Bowman Expedition to Colombia,” Javeriana University, Bogotá, Colombia, July 10, 2008.

“Restoring Geography in America,” Mackay School of Earth Sciences & Engineering, University of Nevada, Reno, NV, April 2, 2008.


“Restoring Geography in America,” Ridgley Lecture Series, Illinois State University, Normal, IL, November 9, 2007.


“A Proposed New World Standard for Humanitarian Demining Map Symbols” (with J. C. Kostelnick, S. L. Egbert, M. D. Dunbar, and A. Arnold), ESRI Users Conference, San Diego, California, August 9, 2006.


Seven Lectures on the Geography of Alaska, American Geographical Society’s Educational Travel Program on Cruise West’s Spirit of Oceanus, August 1-25, 2005.

“Past President’s Commentary: What’s the Future of UCGIS?” University Consortium for Geographic Information Science, Jackson, WY, June 30, 2005.

“Breakthroughs in GIS,” Endacott Society, Lawrence, KS, March 10, 2005


“The American Geographical Society: Geography’s Advocate for 152 Years,” Colloquium Lecture, Department of Geography, University of Kansas, Lawrence, KS, November 21, 2003.


“Geography’s Spatial Language,” Course Lecture, SPLH 660 (Speech Class), University of Kansas, February 27, 2003.


Master of Ceremonies and Keynote Speaker, Globe-Signing Ceremony Honoring Junko Tabei (First Woman to Climb Mt. Everest), Ann Bancroft (First Woman to Reach the North Pole by Dogsled, 1986, and the South Pole on Skis, 1993), Liv Arneson (With Bancroft, One of the First Women to Ski Across Antarctica, 2001), and Capt. William Anderson (Commander of the Nautilus, First Vessel To Cross the North Pole by Water, 1958), May 25, 2004.

Master of Ceremonies and Keynote Speaker, Globe-Signing Ceremony Honoring Bryan Allen (Pilot of the Gossimer Albatross, First Human-Powered Aircraft to Cross the English Channel, 1979), Sylvia Earle (Deepest Unassisted Ocean Dive, 1979), and Edith Ronne (First Woman to Winter Over in Antarctica, 1947), March 31, 2004.

“War is God’s Way of Teaching Geography,” Invited Colloquium Lecture, Texas A & M University, College Station, TX, October 25, 2002.


“GIS in the War on Terror,” Congressional Breakfast (Hosted by University Consortium for Geographic Information Science), February 7, 2002.


Master of Ceremonies, Globe-Signing Ceremony Honoring Neil Armstrong (First Person on the Moon), Don Walsh (Deepest Ocean Dive), Bertrand Piccard and Brian Jones (First to Circumnavigate Earth by Balloon), Bill Ryan (Discover of Mediterranean Sea Inundation and Co-Discoverer of Black Sea Inundation), and Walter Pittman (Co-Discoverer of Black Sea Inundation), New York City, December 11, 2000.


Various topics on geography and GIS, Colloquia Lectures at Numerous Universities, including:
University of South Carolina
University College Cork
University of Wyoming
University of Utah
Appalachian State University
Ohio State University
University of Alaska


Numerous presentations (approximately 25) at the Annual Meetings of the Association of American Geographers, c. 1975-current.
Numerous presentations (approximately 6) at the Applied Geography Conferences, c. 1985-91.


Presentations (approximately 2) at Natural Hazards Workshops.


**PROFESSIONAL WORKSHOPS**


National Science Foundation and Association of American Geographers, Short Course in Remote Sensing (5 weeks), University of Denver, 1971.

ORGANIZATIONAL MEMBERSHIP

American Association for the Advancement of Science

Association of American Geographers.
American Congress on Surveying and Mapping.

American Society for Photogrammetry and Remote Sensing.

American Geographical Society.

National Geographic Society.

Royal Geographic Society.

Sigma Xi.
FOREIGN TRAVEL AND FIELDWORK

For geographers, the earth is our laboratory. Travel is essential. I regard every trip (foreign or domestic, business or personal), as a serious opportunity to study unfamiliar territory. My goal is to have studied every sector of the globe by the time I retire. So far, I’ve visited the following foreign areas:


Mexico 2008, Conference

Colombia 2008, Fieldwork

Jordan 2008, Fieldwork

Mexico 2007, Conference

France 2007, Landmine Project: Train Regional Coordinators

Mexico: Huasteca Region, 2005; Oaxaca Region, 2006, Fieldwork

Italy, 2006, Personal.

Bering Sea and Coast of Russia, 2005 Lecturer.

China, South Korea, and Japan, 2003, Fieldwork

Croatia, Bosnia and Herzegovina, and Slovenia, 2003, Fieldwork

Jordan and Kuwait, 2003, Fieldwork
Colombia and Ecuador, 2002, Fieldwork

Slovenia, 2001, Discuss European Union De-Mining Project for Balkans


Belgium and United Kingdom, 2000, NATO and U. K. Ministry of Defense

Germany, 2000, Geoscope Workshop

Chile, 2000, International Space University

Egypt, 1999, Fieldwork


Ireland and France, 1995, Conferences.

Central Europe, 1995, Conference.

Spain, 1994, International Space University.

Japan and Australia, 1992, International Space University and Fieldwork.

Europe (including Czechoslovakia), Fall 1991, Conference.

Europe (including Czechoslovakia), Spring 1991, Conference.

Europe, 1987, Fieldwork.

Europe, 1986, Conference.

Europe, 1985, Personal.


Europe, 1980, Conference.

Europe, 1968, Personal.
Stephen L. Egbert

Research Interests
Research in remote sensing has a lengthy tradition at the University of Kansas, dating back to the 1970s, and I see my research as building on well-established applied research traditions. The broad area of my research lies in remote sensing and my primary focus is on the application of time-series satellite imagery in land cover mapping, analysis, and modeling. Land cover mapping is one of the foundational areas of research in remote sensing because detailed, accurate, and timely land cover information is an essential building block for a wide range of analysis and modeling applications. My key area of research in remote sensing focuses on development of methods for exploiting information in time-series multi-year composite vegetation index data sets from NASA’s MODIS sensor to characterize and map vegetation dynamics. Virtually all of my research has been supported by outside funding, and funding for my research as PI or Co-I (over $5,000,000 to date) has come primarily from multi-investigator grants and contracts received at the national and state level.

In addition to my tradition research concentration in remote sensing, I have recently begun research into the geographic and geopolitical nature of genocide, mass murder, and related crimes against humanity, which has been a long-time personal interest.

Professional Service
A substantial part of my service is directly related to research activities, most of which are performed at the Kansas Applied Remote Sensing Program. In addition to normal service activities, such as sitting on departmental committees and service to professional organizations, my service consists of meeting with, and giving presentations to, representatives and officials from academia, private industry, and government at state, local and national levels. I also attend meetings, conferences, and workshops at state, regional, and national levels as a representative of the university on matters relating to remote sensing.

Statement of major teaching interests, teaching philosophy, approaches and innovations in teaching
Although my interests in geography are broad, my teaching focuses primarily on remote sensing and related technical fields, both because of my own research focus and the needs of the department and our graduate students. My current course offerings include Remote Sensing of Environment I (Geog 526), Introduction to GPS for Environmental Applications (Geog 658), Seminar in Geography – Remote Sensing Topics (Geog 980),
and Principles of Physical Geography (Geog 104). In my primary field, remote sensing, I have developed an ongoing series of seminars in remote sensing topics designed to keep our students abreast of developments in remote sensing. I have also developed a new course, Remote Sensing Applications to give deeper insights into applied remote sensing research. In my secondary field of interest, I have recently developed and taught, in collaboration with Shannon O’Lear, a course in Geography of Genocide and plan to continue to make similar course offerings as time and scheduling will permit. This course is now in its second iteration and promises to become a popular course offering among students in our department as well as in allied departments that address similar issues.

My teaching approach and philosophy embrace the following:

- Teaching students to think as geographers, not merely as technicians or as technicians with a geographical background. In my introductory remote sensing classes, for example, I frequently point out to remote sensing students that the ability to convert digital satellite data to usable land cover maps will rely at least as much on their ability to view and understand the landscape as on their ability to correctly apply classification techniques and algorithms.

- Keeping students current with the latest developments in technology and theory. I begin each of my lecture-discussion classes with a brief discussion of news items or web sites related to course topics. In remote sensing classes, I use an “Image of the Week” on the front bulletin board to demonstrate current applications in remote sensing and to stimulate discussion. In physical geography, I begin each class period with a news item or question related to the reading.

- Employing active learning and a hands-on approach wherever possible. I use in-class demonstrations of air photos, satellite imagery, and image processing techniques, coupled with discussion, to reinforce concepts presented in lecture and the textbook. In my remote sensing and GPS courses, I put heavy emphasis on laboratory exercises and class demonstrations.

- A personal approach. I make it a point to learn students’ names and to leave time after class for give-and-take discussions. In my GPS course, I hold one-on-one interview sessions with each student midway through the semester to review their proposals for their course projects and give feedback on their planned research and presentations. We used a similar approach in our Geography of Genocide class to monitor and advise students on their semester projects.

- Encouraging professional development. I encourage students to participate in professional activities that will give them experience, and I let students know that I am always available to discuss career plans and opportunities. I expect all of my graduate students to give presentations at regional and national meetings.
Position:  Associate Professor, Department of Geography, University of Kansas  
785 864-4252, FAX: 785 864-5378, Email: segbert@ku.edu  
Associate Scientist, Kansas Applied Remote Sensing Program  
785 864-1507, FAX: 785 864-1534

Education

Ph.D.  University of Kansas, 1994.  Geography (Honors)  
Dissertation:  *The Design and Testing of An Interactive Choropleth Map Exploration System*

M.A.  University of Nebraska, 1983.  Geography  
Thesis:  *The Resettlement of Nance County, Nebraska: Land Alienation Patterns, 1878-1913*

B.S.  Brigham Young University, 1980.  Geography (Minor: Asian Studies)  
B.A.  University of Minnesota, 1971.  Chinese

Academic Experience and Appointments

Associate Professor  
Department of Geography, University of Kansas, Fall 2004 – present

Associate Scientist  
Kansas Applied Remote Sensing Program, University of Kansas, Fall 2004 – present

Courtesy Associate Professor  
Environmental Studies Program, University of Kansas, Spring 2009 – present

Assistant Professor  
Department of Geography, University of Kansas, Fall 1998 – Summer 2004

Assistant Scientist  
Kansas Applied Remote Sensing Program, University of Kansas, Fall 1998 – Summer 2004

Courtesy Assistant Professor  
Department of Geography, University of Kansas, Fall 1996 - Summer 1998

Research Associate  

Postdoctoral Research Associate and Project Manager  

Other Related Experience


Digital Image Processing Consultant - Battlefield Visualization Demonstration, with the Topographic Engineer Center (TEC) and the 649th Topographic Engineer Company - Cubic Applications Corporation, Schwetzingen, Germany - November 1994
Professional Memberships

American Society for Photogrammetry and Remote Sensing (ASPRS), 1981 – present
Association of American Geographers (AAG), 1980 – present
International Network of Genocide Scholars (INOGS), 2009 – present

TEACHING

Courses Taught

GEOG 104 Principles of Physical Geography
GEOG 526 Remote Sensing of Environment I
GEOG 571 Topics in Cultural Geography: Geography of Genocide (with Shannon O'Lear)
GEOG 658 Topics in GIScience: Introduction to GPS in Environmental Applications
GEOG 658 Topics in GIScience: Remote Sensing Applications
GEOG 926 Seminar in Remote Sensing: Electro-Optical Systems; Landscape Visualization
GEOG 980 Geography Seminar: Topics in Remote Sensing
  Multispectral Sensors and Data
  Professional Development in Remote Sensing
  Advanced Data Classification Technologies
  GeoWall
  Visual Enhancements for Remotely Sensed Images
  Time-Series Image Analysis
  LIDAR
  Google Earth Applications
GEOG 980 Geography Seminar: Defining Genocide Geographically (with Shannon O'Lear)

Students

Ph.D. Completed
Sunyurp Park – Summer 2003. Dissertation Title: Determination of Thermal Response of Vegetation to Water-Stress and Its Relationship with NDVI in Western-Central Kansas Using MODIS Data. Funded by NASA Earth System Science Fellowship. (Co-advised with Johannes Feddema)
Iwake Masialeti. Spring 2008. (Co-advise with Garth Myers.)
Yoshinori Nakazawa. Summer 2009. (Co-advice with A. Townsend Peterson.)
Matthew Dunbar. Fall 2009. (Co-advise with Jerry Dobson)

Ph.D. in Progress
Geoffrey Demarest. 2007 – present.
Lynnette Dornak. 2007 – present. (Co-advises with A. Townsend Peterson)
Eunmok Lee. 2010 – present.

M.A. Completed
Joshua Artman. Completed Fall 2000. (Co-advised with Robert Buddemeier)
Matthew Dunbar. Completed Spring 2005. (Co-advised with Mark Jakubauskas)
Willem Helms. Completed Summer 2003. (Co-advised with Mark Jakubauskas)
Elizabeth Montgomery-Anderson. Completed Fall 2008. (Co-advised with Shannon O’Lear)
Elizabeth Montgomery-Anderson. Completed Fall 2008. (Co-advised with Shannon O’Lear)
Sarah Signiski. Completed Fall 1999. (Co-advised with Kevin Price)

M.A. in Progress
Kevin Dobbs. 2006 – present.
Chris Bishop. 2007 – present.
Cara Haas. 2008 – present
Nicole Reiz. 2008 – present. (Co-advising with Shannon O’Lear)

Service on Other Graduate Committees and Undergraduate Honors Committees
Ph.D. Dissertation Committees: 18 completed
M.A. Thesis Committee: 10 completed
B.A./B.S. Honors Committee Chair: 3 completed

Short Courses and Workshops
GIS for Tribal Natural Resource Managers. 2007. Presented modules on remote sensing applications and imagery data resources for natural resources specialists from several tribes in the central and western U.S. Haskell Indian Nations University, Lawrence, KS, May 15-17. (With Kevin Dobbs)
GeoWall in Geographic Education. 2007. Presented a half-day workshop on the GeoWall, a system for 3D stereo visualization of the environment. Annual Meeting of the Association of American Geographers, San Francisco, California, April 16. (With Terry Slocum and Matt Dunbar)
GeoWall in Geographic Education. 2006. Presented a half-day workshop on the GeoWall, a system for 3D stereo visualization of the environment. Annual Meeting of the Association of American Geographers, Chicago, Illinois, March 8. (With Terry Slocum and Matt Dunbar)
GIS for Tribal Natural Resource Managers. 2005. Presented modules on remote sensing applications and imagery data resources for natural resources specialists from several tribes in the central and western U.S. Haskell Indian Nations University, Lawrence, KS, November 17. (With Josh Campbell)
GIS for Tribal Natural Resource Managers. 2004. Presented modules on remote sensing applications and imagery data resources for natural resources specialists from several tribes in the central and western U.S. Haskell Indian Nations University, Lawrence, KS, November 30. (With Brianna Mosiman)
ESIC Science Teachers Workshop. 2004. Presented modules on remote sensing applications and imagery data resources for a nationally selected group of high school and middle school science teachers. University of Kansas, Lawrence, KS, July 15. (With Brianna Mosiman)

ESIC Science Teachers Workshop. 2003. Presented modules on remote sensing applications and imagery data resources for a nationally selected group of high school and middle school science teachers. University of Kansas, Lawrence, KS, June 19. (With Brianna Mosiman)


Geospatial Technologies Workshop. 2002. For faculty of the University of Zambia and geospatial specialists in Zambian government ministries. Held in the School of Mines at the University of Zambia. Lusaka, Zambia, June 3-19. (With Garth A. Myers, Kevin P. Price, Terry A. Slocum, and Brianna N. Mercier)


Introduction and Overview of Satellite Imagery for Agricultural Applications. 1999. Presented to management and staff from Strategic Weather, Inc., a partner in Agrimetrix, Inc. Presented characteristics of polar orbiting satellites, including satellite, sensor, and resolution concepts. Lawrence, Kansas, 27 October. (With Kevin P. Price)

Map Display for Geographic Information Systems. 1991. Geographic Research, Applications, and Information Laboratory (GRAIL), Success with GIS Workshop Series, Department of Geography, University of Kansas. (With Terry A. Slocum)

The Cartographic/GIS Interface. 1990. Mid-America GIS Symposium, Overland Park, KS. (With Terry A. Slocum)

Teaching Honors

Kemper Teaching Fellowship, Fall 2005
Nominated for Byron L. Alexander CLAS Graduate Mentor Award. 2002.
RESEARCH

Research Interests

Most of my earliest research at the Ph.D. level focused on the development and testing of interactive cartographic displays, including both formal and informal analysis of user needs and responses. Subsequently, my focus turned to remote sensing, where I had received extensive training and experience through military service. The broad emphasis of my research currently lies in the application of time-series satellite imagery for land cover mapping, analysis, and modeling. More recently, I have returned to my earlier interest in visualization in cartographic displays. Ongoing and projected research under these and related topics include:

- Development of methods for exploiting information in time-series multi-year composite vegetation index data sets from NASA’s MODIS sensor to characterize and map vegetation dynamics on the Great Plains. Initial investigations using the new generation of decision-tree classifiers have produced very promising results in monitoring crop health and progress.
- Evaluation of geotechnologies to assist in creating spatial databases of minefields. Through funding from the Geneva International Centre for Humanitarian Demining, we are investigating the use of a portable tool (handheld PC, GPS, and laser rangefinder binoculars) to map minefields under a variety of environmental and cultural conditions.
- Evaluation of low-cost stereo 3D technology for visualizing geographical datasets, including those created from satellite imagery and digital elevation models. This is a topic that combines my current research interests with the focus of my dissertation research – the visualization of complex spatial data.

In addition to my tradition research concentration in remote sensing, I have recently begun research into the geographic nature of genocide, mass murder, and related crimes against humanity, which has been a long-time personal interest. The motivation for this research is that the geographic component is often understated or even missing from genocide studies, and I believe that geography has much to offer in this regard.

Funding for my research in the geospatial sciences (over $6,000,000 to date) has come primarily from multi-investigator grants and contracts received from the national and state level. National funding agencies include NASA, NSF, and USGS, while state agencies include the Kansas Department of Wildlife and Parks, the Kansas Department of Agriculture, and the Kansas GIS Policy Board.

Refereed Articles, Book Chapters, and Case Studies – Published or in Press


**Refereed Articles in Review**


**Refereed Articles in Revision or Ready for Submission**

None currently

**Proceedings and Other Articles**


**Abstracts and Conference Presentations** (only those not included under Proceedings)


Dobbs, K., Kastens, J., Egbert, S.L., and Thayn, J. 2009. Real-Time and Forecast Flood Extent Mapping in Eastern Kansas. Accepted as poster presentation for the *Annual Conference of the*


Egbert, S.L. 1983. An Approach to Identifying Urban Areas on Landsat Images of China's Arid Xinjiang Autonomous Region. Midwest Conference on Asian Affairs, University of Kansas, Lawrence, KS.

Abstracts Submitted and in Review


Other Publications: Technical Reports, Highlight Articles, Bulletins, and Maps


Research Grants and Contracts (Investigator or Co-Investigator)

Summary of Grant Activity

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<th>Grants</th>
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Funding agencies:
- Geneva International Centre for Humanitarian Demining
- National Science Foundation
- National Aeronautics and Space Administration (NASA)
- Department of Defense
- U.S. Geological Survey
- National Park Service
- Kansas Department of Agriculture, Division of Water Resources
- Kansas GIS Policy Board
- University of Kansas

Grants

*Funded Grant Proposals*


Egbert, S.L. 2005. MODIS Time-Series Datasets for Environmental Modeling. Sub-award from the Biodiversity Research Center (grant FED 36230 from the Department of Defense). 01/01/05 – 06/30/05. $15,000


Grant Proposals Pending

Slocum, T.A. and Egbert, S.L. 2010-2012. Evaluating the Effect of Large-Format Stereoscopic Displays on Student Learning in Introductory College Physical Geography Classes. Submitted to National Science Foundation (Geoscience Education). 09/01/10 – 08/31/12. $147,759.

Contracts

Contracts Funded


Dobson, J.E. and Egbert, S.L. 2008. Contract for Professional Services Between the Geneva International Centre for Humanitarian Demining and The University of Kansas. 01/01/08-12/31/08. $100,000.


Dobson, J.E. and Egbert, S.L. 2007. Contract for Professional Services Between the Geneva International Centre for Humanitarian Demining and The University of Kansas. 01/01/08-12/31/08. $150,000.

Dobson, J.E. and Egbert, S.L. 2006. Contract for Professional Services Between the Geneva International Centre for Humanitarian Demining and The University of Kansas. 01/01/06-12/31/06. $150,000.

Dobson, J.E. and Egbert, S.L. 2005. Contract for Professional Services Between the Geneva International Centre for Humanitarian Demining and The University of Kansas. 01/01/05-12/31/05. $100,000.


ACADEMIC SERVICE

Department, College, and University

Chair, Geography Graduate Studies Committee, 2006 – present
Chair, Geography Department Colloquium Series Committee, 2003 – 2006
GIS Steering Committee, University of Kansas, 2003 – present
Department Ambassador to Center for Teaching Excellence, 2002 – 2005
Faculty Adviser, Mt. Oread Geospatial Technologies Club, 2002 – present
Faculty Committee, Department of Geography, University of Kansas, 2001 – 2003
Systems Analysis and Design Program Committee, College of Liberal Arts and Sciences, University of Kansas, 2001 - 2003
Review Committee, Kansas Biological Survey Director, University of Kansas, 2000 – 2001
Student Affairs Committee, Department of Geography, University of Kansas, 1999 – 2001
Faculty Adviser, Latter-day Saint Student Association (LDSSA), 1999 – 2006
Chair, Curriculum and Academic Programs Committee, Department of Geography, University of Kansas, 1998 - 1999
Search Committee, Cartographic Services Director, Geography, Summer 1998
Chair, GP-RESAC Proposal Development Committee, KARS, Summer 1998
Chair, Search Committee, GP-RESAC Coordinator, KARS, December 1998 – March 1999
Publication Committee, Kansas Land Cover Map and KARS Program Brochure, KARS, 1997

State, National, International

State Director, KansasView Program. Coordinate activities with other consortium members (universities and colleges, plus state and local government agencies), especially through meetings of the state GIS Policy Board.

Geneva International Centre for Humanitarian Demining. A significant portion of our relationship with GICHD focuses on service functions. In our capacity as field evaluators for the handheld field survey tool, I have conducted site visits to Chile, Albania, Ecuador, and Lebanon, and have conducted geospatial workshops at GICHD headquarters in Switzerland for key personnel.

Professional Societies

Session Chair, Annual Meeting, Association of American Geographers, San Francisco, California, 2007
Session Chair, Annual Meeting, American Society for Photogrammetry and Remote Sensing, Washington, DC, 2000
Session Chair, Annual Meeting, Association of American Geographers, Honolulu, Hawaii, 1999
Session Chair, Annual Meeting, Great Plains – Rocky Mountain Division, Association of American Geographers, Colorado Springs, Colorado, 1999
Session Chair, Annual Meeting, Kansas Academy of Science, Manhattan, Kansas, 1999

Reviewer for Grant Proposals and Professional Journals

NSF, 2003
NASA, 1996, 2000
Annals, Association of American Geographers, 2007
Environmental Protection Agency, 2000
Geoscience Letters, 2007
Great Plains Research, 2002
Landscape Ecology, 2001
Transactions, Kansas Academy of Science, 2008

**Book and Software Reviews**


Departmental Review Statement

Johannes J. Feddema

My research and teaching interested aim to improve our understanding of the relationship between humans and environmental systems. This relationship can be broadly divided into two areas of research, first the impacts that human systems have on the environment, and second the impacts of climate on human systems. Throughout my career I have used my knowledge of biology, geography and climatology to develop a systematic understanding of the processes that control these human-environment interactions.

My original interest in this area of research came from viewing first hand how people in eastern Africa interacted with, and occasionally suffered from the consequences of, climate variability. As an undergraduate student majoring in biology and geography I was instantly drawn to using water balance models to study the impacts of climate on human systems. From these early interests I developed methods for assessing climate impacts in water balance models due to human impacts such as global warming, land cover change and human induced soil degradation. However, at some point I realized that the models I was using in my analysis were too limited to fully capture the complete feedback mechanisms and impacts of either anthropogenically induced climate changes, or consequences of climate change on human systems.

About ten years ago I began a relationship with Dr. Warren Washington and Dr. Gordon Bonan at the National Center for Atmospheric Research to develop a program to introduce human impacts into the NCAR climate models. Our first modest efforts to simulate the effects of land cover change in the fully coupled Parallel Climate Model (PCM) was met with significant obstacles, in large part because the model was not designed to include alternative land surface boundary conditions, and because we realized that the land cover representations were extremely limited in their ability to adequately represent the true nature of human land cover change. Since that time I have worked closely with Dr. Bonan and others in the Terrestrial Sciences Section at NCAR to develop methods for representing anthropogenic impacts in the Community Land Model (CLM). From our joint research efforts we have improved CLM’s capabilities to simulate transient land cover change, and I played an integral part in developing the urban sub-model. Most recently I contributed to a methodology for improving the way deforestation datasets are interpreted and used in the CLM to simulate human wood harvest processes.

One of my main roles in our collaboration has been my work to develop datasets to represent the boundary layer conditions that drive the human activities in the CLM. For example, the urban model requires 14 different parameters (building height, percent vegetated area, wall and roof thermal and radiative properties etc) to properly determine the radiative and aerodynamic fluxes from an urban area. We also recognized that urban extent is a very poorly mapped variable on a global scale, so we have build datasets to represent the extent of different intensity urban areas and their properties for 33 regions across the globe. In addition, I have been very active in developing methods for translating IPCC Integrated Assessment Model (IAM) data (i.e. the IMAGE, IAM, MESSAGE and Mini-CAM models) into CLM readable surface datasets. Over the last year it has become apparent that the IAM information on economic human decision making and the information required to simulate human processes in CLM are often incompatible. Either the CLM is not designed to simulate a particular process that is required to
simulate a specific human activity (e.g. distinctions based on growing specific crop types or growing cellulosic fuel crops in place of food crops, when there is only one C3 grass like crop type without a harvest simulation). Currently different crop types are being introduced, but future land cover simulations will require new ways of using land units in CLM so irrigation processes and urban systems can be simulated on land columns independent of each other to simulate different hydrological conditions associate with different human activities. A major obstacle that we expect to solve in the near future is how to initialize such land units in a transient simulation mode. Until CLM develops more sophisticated ways of representing specific human processes it will be difficult to fully simulate human processes depicted in IAMs. At the same time it is also apparent that IAMs can benefit greatly from the much more detailed surface representations used by GCMs to specify more explicit land use/land cover for use in climate simulations (for example, our urban extent is based on 1km resolution datasets while most IAMs divide the world in about a dozen regions). Similar issues are associated with simulating such processes as deforestation and soil degradation. In the future I see myself working to better coordinate and improve simulation efforts in both CLM and IAMs to improve the communication between these models.

The same ideas that shape my research interests also shape my teaching interest and philosophy. My primary teaching responsibilities at the lower division level are EVRN/GEOG 148/149 Scientific Principles of Environmental Studies (149 is the honors version) and ATMO/GEOG 321 Climate and Climate Change. I love teaching these classes because they allow me to show students how scientists see and understand our world. Besides the basic background work such courses typically involve, I use these classes to introduce the students to the concepts of mathematical modeling and how to systematically understand the natural world in a systems approach, and how these systems extend into our daily lives. At the higher division level I have taught ATMO/GEOG 521 Microclimatology, and I teach a variety of course related to climate change and surface-atmosphere interactions.

In the last few years I have begun to teach several team taught classes because I believe that to truly introduce students to interdisciplinary concepts, we set an example and provide the different viewpoints in the class room. I have taught EVRN 702, Energy, Ecology & Community in Kansas, a course taught for the C-CHANGE IGERT program with three instructors. Next year I will co-teach a two semester course sequence, EVRN/GEOG 148 and EVRN/HIST 103 Environment & History with Dr. Greg Cushman (an environmental historian) in an effort to introduce this interdisciplinary approach at an introductory level. Our hope is that this course sequence will become a model for providing a new way of providing integrated general education concept to students.

I have provided significant service to both the Geography and Environmental Studies Programs. I have been associate chair of the Geography Department for the last 5 years, and am currently acting chair of the Department. I am one of 15 “Governance Faculty” in the Environmental Studies Program.
JOHANNES J. FEDDEMA

Department of Geography, University of Kansas
1475 Jayhawk Boulevard, Lawrence, Kansas 66045
Telephone: (785) 864-5534 • Email: feddema@ku.edu

April 2010

EDUCATION

Ph.D. Climatology, University of Delaware, Newark, Delaware, December 1991.
Dissertation: Evaluation of Terrestrial Climate Variability Using a Moisture Index.

M.S. Geography, University of Delaware, Newark, Delaware, August 1985.

B.A. Biology and Geography, University of Delaware, Newark, Delaware, June 1982.

RESEARCH INTERESTS

Climate Change  Environmental Modeling  Spatial Statistics and GIS
Bioclimatology  Human-Environment Interactions  Hydroclimatology

PROFESSIONAL POSITIONS

2007-Present  Professor, Dept. of Geography, University of Kansas, Lawrence, KS.
2006-Present  Affiliate Scientist, National Center for Atmospheric Research, Boulder, CO.
2000-2007  Associate Professor, Dept. of Geography, University of Kansas, Lawrence, KS.
1998-2000  Assistant Professor, Dept. of Geography, University of Kansas, Lawrence, KS.
1990-1998  Assistant Professor, Dept. of Geography, University of California, Los Angeles, CA.
1989-1990  Instructor, Department of Geography, University of Delaware, Newark, DE.
1988-1990  Consultant, Duffield Assoc Inc and Tetra Tech Richardson Inc, Newark, DE.
1984-1989  Graduate Teaching/Research Assistant, Dept. of Geog., U. of Delaware, Newark, DE.
1981  Undergraduate Research Assistant, Dept. of Biology, Univ. of Delaware, Newark, DE.

AWARDS

- Member, Land Model working group that received 2008 CCSM Distinguished Achievement Award
- Excellence in Undergraduate Advising Award (Dept. award while Undergrad Director), 2004.
- Teaching Excellence Award from the Center for Teaching Excellence, University of Kansas, 2002.
- UCLA Department of Geography Nominee for the Luckman Teaching Award, 1993.
- Student Paper prize, Climate Specialty Group, AAG, 1990.

PROFESSIONAL AFFILIATIONS

American Geophysical Union
American Meteorological Society
Association of American Geographers
    Climatology Specialty Group, Water Resources Specialty Group, Africa Specialty Group

TRAVEL AND LANGUAGES

Countries of residence: Netherlands, Kenya, Rwanda, Switzerland, and U.S.A.
Extended travel to: Pakistan and Tunisia.
Language Proficiency: Fluent Dutch and English, conversational Frisian and French.
TEACHING EXPERIENCE

GEOG 148/EVRN 148 - Introduction to Environmental Studies, University of Kansas (KU)
GEOG 149/EVRN 149 - Introduction to Environmental Studies, Honors, KU
GEOG 210 - Computers, Maps and Geographic Analysis, KU
GEOG 304 - Environmental Conservation, KU
GEOG 321/ATMO 321 - Climate and Climate Change, KU
GEOG 339 - Topics in Physical Geography: Climatology, KU
GEOG 521/ATMO 521 - Microclimatology, KU
GEOG 531 - Seminar in Physical Geography: Environmental Issues, KU
GEOG 531 - Seminar in Physical Geography: Climate Change, KU
GEOG 731 - Seminar in Physical Geography: Climate-vegetation interactions, KU.
GEOG 731 - Seminar in Physical Geography: Climate Change Studies, KU.
GEOG 958 - Seminar in GIS, KU
EVRN 702/UPBL 773 - Energy, Ecology and Community in Kansas, KU
GEOG 5 - People and the Earth's Ecosystems (laboratory course), UCLA
GEOG 104 - Climatology, UCLA
GEOG 128 - World's Ecosystems: Problems and Issues, UCLA
GEOG 129 - Seminar: Environmental Problems, UCLA
GEOG 159d - Problems in Geography (applied/microclimatology), UCLA
GEOG 199 - Directed Independent Study, UCLA
GEOG 204b - Advanced Climatology (Water Balance), UCLA
GEOG 205 - Climatology Seminar, UCLA
GEOG 229 - Seminar: People and Environment, UCLA
G152 - Climate and Life (laboratory course), University of Delaware
G230 - Humans and the Earth's Ecosystems, University of Delaware

Teaching Assistant (Univ. of Delaware) for the following:

Physical Geography, Introductory Meteorology, Air-Photo Interpretation, Climatic Geomorphology, Computer Cartography (graduate)

Undergraduate Honors advisees: Peter Gogol, Jessica Drees
Undergraduate Honors Committee member: Jeremy Wolf (EECS)

GRADUATE STUDENT COMMITTEES

* = current advisee, † = Advanced to candidacy, ‡ = Co-Chair

Ph.D. Committee Chair: Lin Wu, Aaron Allen, Sun Park, Christopher Atkinson*, Ashley Zung
Ph.D. Committee member:

Geography: Jacqueline Gallagher, Mario Picazo, Oxana Marenko, Paul Price, Jeff Harvey, Ivan Cheung, Mark Kuhlman, Caroline Tepley, Peter Sam, Cameron McCormick, Hugh Howard, John Bauer, Lister Lanham, Samntini Shome, Pei-Ling Lin
Atmospheric Sciences: Jia-yuh Yu, Yurdanur Sezginer, Corrol Hsu, Ning Jiang
Computer Science: Daniel Cliburn
Geology: William Heins, Jefferson Fillipone, Linda Garinger, Marcello Minzoni
Biology: Jose Luis Andrade-Torres, Paula Jackson
Environmental Science and Engineering: Nancy Steele, Michael Benjamin, Eric Stein, Estelle Shiroma, Doug Meffert, Alice Kwan, John Karlik, Spencer McNeil
M.A. Committee Chair: Aaron Allen, Gary Tilkian, Terry Nakazono, Phelicia Gomes, Jason Shields, Sergio Friere, Trish Jackson, Tom Baffa
M.A. Committee Member: Alexander Stege, Janet Fleming, Leonard Tang, Amy Segelin, Janice King, Linda Fair, Caitlin Dempsey, Travis Hull, Mark Gruber, John Banning, John Bauer, Rachel Saifullah, Julie Morris, Aubrey Jones, Thomas Overly, Tyler Buck
PUBLICATIONS (Refereed)


PUBLICATIONS (Refereed) -- Continued


**PAPERS SUBMITTED**


MONOGRAPHS


PROCEEDINGS PAPERS


REFEREED ABSTRACTS

NON REFEREED PAPERS, REPORTS, NEWSLETTERS, TESTIMONY AND ESSAYS


Feddema, J.J. (2008). Guest blogs on Ricky Rood’s Weather Underground climate change blog
- Part I Coal and climate, July 11, 2008
- Part II: Coal and future energy sources, July 19, 2008


Feddema, J.J. (1999): Assessing the impacts of global warming and landuse change on California water resources. Final report to NIGEC, DOE Grant DE-FC03-90ER61010


GRANTS

2009
- Kansas NSF EPSCoR
2008
- NSF IGERT: C-CHANGE: Climate Change, Humans, and Nature in the Global Environment. (Participating Faculty, PI: Joane Nagel) $3.2 Million
- RUI: The Biogeography of Forest Change: Drought and Crown Fire in Ponderosa Pine Forests of the American Southwest CoPI with Mast and Savage $191,954
- Assessing Climate Change in Kansas. The Land Institute. CoPI with Brunsell $36,012
2006
- NSF grant Collaborative Research: Fire at the Intersection of Global Carbon and Water Cycles. PI Mahowald and 5 Co-Is. $653,554
2005
- NSF Science and Technology Center grant Center for Remote Sensing of Ice Sheets. PIs Gogineni and Braaten, and ~40 Co-Is. $19 Million
2004
- NSF grant Development of historical and future land cover and land use change datasets for the Community Climate System Model. $169,096
2003-2010
- NCAR internal Assessment Initiative grant, Weather and Climate Impact Assessment Science Initiative (Mearns and Washington PIs); Feddema KU Annually renewed from 2003 to present (amount through 2010) $189,243
2002
- Support to Operation Able Ally, NATO grant. $13,580
2001
- NSF SGER grant, Development of surface based anthropogenic climate change scenarios for CCSM. With Dobson. $35,640
2000
- US Department of State Linkage Grant between the University of Kansas and the University of Zambia (Myers PI) $142,138
<table>
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<th>Year</th>
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<tr>
<td></td>
<td>KU Research Development Fund (RDF), <em>Coupled Remote Sensing and Climate model for determining Crop productivity</em>. PI with Bennett, Martinko, Price and Slocum</td>
<td>$40,578</td>
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<td>KU Research Development Fund (RDF), <em>Playas (“buffalo wallows”): Environmental Barometers of the Central Great Plains</em>. With Johnson (PI), Bozarth, Logan, Price and Steeples</td>
<td>$30,846</td>
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<td>KU Research Development Fund, <em>Pre-proposal for Digital Libraries consortium: map archival and distribution</em>. With Knoepp (PI), Bennett and Niebaum</td>
<td>$101,140</td>
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<td>1997</td>
<td>Intel Corporation, Regional Environmental Assessment Laboratory and GIS (REAL/GIS). Co-PI with Turco and 15 Co-Is.</td>
<td>$978,485</td>
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<td>NASA, Campus-wide Initiative for Inter-disciplinary Study of the Environment with Remote Sensing. With Smith (PI) and Turco.</td>
<td>$223,000</td>
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<td>California State Coastal Conservancy, Lower Malibu Creek and Malibu Lagoon Resource Enhancement and Management Project. With Ambrose and Orme (PIs), and 5 Co-PIs.</td>
<td>$246,805</td>
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<td>University of California Institute for Geophysics and Planetary Physics, Application of the UC-LLNL Regional Climate System Model to the Malibu Watershed. With Dracup and Miller (PIs).</td>
<td>$26,674</td>
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<td>Office of Instructional Development, UCLA, <em>Geography 5:Ocean Field trip funding</em>. PI with MacDonald and Muldavin</td>
<td>$4,275</td>
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<td>Academic Senate Grant, UCLA.</td>
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<td>1996</td>
<td>EPA/NSF <em>Integrated Urban Watershed Analysis: The Los Angeles Basin and Coastal Environment</em>. With Turco (PI), and 19 co-PIs.</td>
<td>$1.8 Million</td>
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<td>Office of Instructional Development (OID), UCLA, <em>Institute of the Environment GE curriculum development</em>. With Suffet and Vance.</td>
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<td>Office of Instructional Development, UCLA, <em>Geography 5: Laboratory Improvement Grant</em>.</td>
<td>$7,712</td>
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<td>Academic Senate Grant, UCLA.</td>
<td>$2,367</td>
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<td>1995</td>
<td>National Institute for Global Environmental Change (DOE), <em>Assessing the impacts of Global Warming on California Water Resources</em>.</td>
<td>$77,768</td>
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<td></td>
<td>Office of Instructional Development (OID), UCLA, <em>GIS Laboratory</em>. PI with Mills and Ellis.</td>
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<td>Office of Research, UCLA, <em>GIS Laboratory</em>. PI with Mills, Ellis, Zhang and Clark.</td>
<td>$47,500</td>
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<td>Academic Senate Grant, UCLA.</td>
<td>$2,500</td>
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<td>1994</td>
<td>National Science Foundation. <em>Water as an integrating theme in landscape change and undergraduate environmental education</em>. With Entrikin (PI), Matthews, Mills, Orme, Raphael, Savage and Trimble.</td>
<td>$29,782-UCLA</td>
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<td>$2,880</td>
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<tr>
<td>1992</td>
<td>Academic Senate Grant, UCLA</td>
<td>$3,100</td>
</tr>
<tr>
<td>1991</td>
<td>Academic Senate Grant, UCLA</td>
<td>$2,830</td>
</tr>
</tbody>
</table>
INVITED LECTURES (* = person presenting paper if not first author)


Feddema, J.J. 2010 Climate Component of the Kansas EPSCoR project. Sustainability Conference. Kansans Advancing Sustainability in higher Education, Kansas State University, Manhattan, KS January 30.


Feddema, J.J. 2009 Climate change and Kansas, Keynote address for the Kansas Academy of Science , Topeka KS, March 27.


INVITED LECTURES – Continued


INVITED LECTURES – Continued


INVITED LECTURES – Continued


PRESENTATIONS AT PROFESSIONAL MEETINGS (* = person presenting paper if not first author)


Feddema, J.J. (2005): “Assessing the impacts of land cover change on global climate,” AAG annual meetings, Denver, CO, April 7

Feddema, J.J. (2004): “A Revised Thornthwaite Type Global Climate Classification,” AAG annual meetings, Philadelphia, PA, March 19


PRESENTATIONS AT PROFESSIONAL MEETINGS -- Continued


WORKSHOP ACTIVITIES

Participant (2010): Joint Land and Biogeochemistry working group meetings of the CCSM, NCAR, Boulder, CO, Feb 8-9

Participant (2009) Kansas NSF EPSCoR Strategic Planning Workshop, Lawrence, KS, October 7-8

Participant: 14th Annual Community Climate System Model (CCSM) workshop, Sponsored by the National Center for Atmospheric Research (NCAR), Breckenridge, CO, 15-18 June, 2009.

Participant (2009) Kansas NSF EPSCoR Strategic Planning Workshop, Lawrence, KS, October 7-8

Participant (2009) Land use and wetlands in the AR5 models. Max Planck Institute for Meteorology, Hamburg, Germany. 4-6 May,

Participant (2009): Joint Land and Biogeochemistry working group meetings of the CCSM, NCAR, Boulder, CO, Mar 31-Apr 1

Keynote speaker and panelist (2008): Heterogeneous data access and use for geospatial user communities, Atmospheric Data Access for the Geospatial User Community (ADAGUC) program VU, University Amsterdam, December 4-5.


Participant: 13th Annual Community Climate System Model (CCSM) workshop, Sponsored by the National Center for Atmospheric Research (NCAR), Breckenridge, CO, 19-21 June, 2008.


Participant (2007), 12th Annual Community Climate System Model (CCSM) workshop, Sponsored by the National Center for Atmospheric Research (NCAR), Breckenridge, CO, 19-21 June.

Participant (2006), 11th Annual Community Climate System Model (CCSM) workshop, Sponsored by the National Center for Atmospheric Research (NCAR), Breckenridge, CO, 20-22 June.


Participant (2005), 10th Annual Community Climate System Model (CCSM) workshop, Sponsored by the National Center for Atmospheric Research (NCAR), Breckenridge, CO, 21-23 June.


Participant (2004), 9th Annual Community Climate System Model (CCSM) workshop, Sponsored by the National Center for Atmospheric Research (NCAR), Santa Fe, NM, 7-9 July.

Participant (2003), 8th Annual Community Climate System Model (CCSM) workshop, Sponsored by the National Center for Atmospheric Research (NCAR), Breckenridge, CO, 24-26 June.


Participant (2002), 7th Annual Community Climate System Model (CCSM) workshop, Sponsored by the National Center for Atmospheric Research (NCAR), 2000, Breckenridge, CO, 25-27 June.

Participant (2000), 5th Annual Community Climate System Model (CCSM) workshop, Sponsored by the National Center for Atmospheric Research (NCAR) June, Breckenridge, CO, 27-29.

Delegate (2000), representing the University of Kansas to the University Consortium for GIS (UCGIS) Annual Summer Conference, Oregon, June, 21-24.

WORKSHOP ACTIVITIES -- Continued

Participant (1998), AAAS workshop on “Collaborative Research in Earth System Science – Continental hydrology subgroup,” 18-19 November, Lawrence, KS.

Participant (1993), Indiana Center on Global Change and World Peace workshop on “Changing Environments: How Vulnerable are We?” Bloomington, Indiana, October 14-16.


PROFESSIONAL SERVICE

National and International Service

• Governors appointee to the “Kansas Energy and Environmental Policy Advisory Group,”
• Prepared materials for a presentation on “Kansas and Climate Change” to the Kansas Governors’ Kansas Energy Council, presented by Brunsell, February 21, 2008
• Testified on Climate Change in Kansas before the Kansas House of Representatives Committee on HB 2711, February 6, 2008
• Community forum presentation on the impacts of Climate Change on Kansas, for the Energy and Climate Project of the Land Institute, January 23, Topeka, KS.
• Briefing to Lt Governor of Kansas on climate change, January 23 2008
• Reviewer for the National Science Foundation.
• Reviewer for the Netherlands Research Organization (NWO).
• Reviewer for NASA LULCC panel participant (reviewed 46 proposals)
• Outside Full professor review University of Nebraska (2006)
• Outside reviewer for University of Colorado faculty tenure promotion (2006)
• Reviewer, Kansas State University Pre-proposal (2008)
• Reviewer, NCAR Opportunity fund proposals (2005)
• Assisted Linda Hall Science Library (Kansas City) with developing a Climate Change Conference 2009
• Chair: Session of the 1998 Annual meeting of the Rocky Mountains/Great Plains Division of the AAG, Lawrence, Kansas.
• Director of the Climate Specialty group of the AAG (1997-1999).
• Chair: AAG joint Climate Specialty Group and Water Resources Specialty Group Session on Climate Change and Water Resources, at the 1997 Annual AAG meeting in Ft. Worth, Texas.
• Director of the Water Resources Specialty group of the AAG (1994-1997).
• Served on the AAG Climate Specialty Group Honors Committee (1993-1996).
• Chair: AAG Climate Specialty Group Session on Global Climate and Climatic Change, at the 1993 Annual AAG meeting in Atlanta, Georgia.
• Co-organizer (with K.M. Klink): AAG Climate Specialty Group session on large-scale climatology at the 1991 Annual AAG meeting in Miami, Florida.
• Evaluation Consultant for Project Geogram a 6-8th Grade program for introducing Geography into the National K-12 Education System.
PROFESSIONAL SERVICE – Continued

University of Kansas

University Service

- CLAS Promotion and tenure committee (2009-2012) excused 2010 due to chair duties
- Presentation on Mathematics and Climate for annual math competition as part of Math Awareness Month (Mathematics and Climate theme), KU Math Department, April 27, 2009
- Library Gallery: provided paper for display on KU exhibit on environmental work at KU
- Presentations to Honors Colloquium (Feb 18, 2008), ARCH 930: Doctoral Seminar (Nov 6, 2008), C-CHANGE IGERT program (Nov 24, 2008), GEOG 107: Honors Physical Geography (April 29, 2008), CReSIS teacher workshop (Jan 24, 2009), ARCH 530: Environmental Systems II (Feb 24, 2009)
- Panelist/Presenter Addressing consumer’s dilemmas in a globalized world Presentation for Hall Center Globalization Seminar series on Nov, 20, 2008
- Outside member for director search committee: Environmental Studies 2008
- Assessment of General Education Committee (2003-present).
- Coordinator for integrating the Atmospheric Science program into the Geography Department
- Outside member for faculty search committee: Geology 2003
- Served on several Environmental Studies committees (Faculty evaluation and curriculum)
- Marshall at graduation ceremonies

Department Service

- Acting Department Chair, 2009-2010
- Associate Department Chair (2005 – 2009)
  - Scheduling officer
  - Initiating M.S. Program in Geography
  - Developed Long Range Plan for the Geography Department
  - Faculty evaluation committee chair: annual reviews
  - Led promotion committees
    - Full Professor: Braaten, Van der Veen, Herlihy
    - Associate professor: Brown, O’Lear, Li, Brunsell
    - Third year review: Li, Brunsell, Cheong
    - Sabbatical evaluations: Brown, O’Lear, Dobson, Shortridge, Myers
- Faculty mentor to Chris Brown and Xingong Li, David Mechem
- Evaluated 5 faculty members for peer teaching evaluations (2005-2009)
- Chair, Faculty search committee: Atmospheric Sciences position 2007.
- Faculty search committee: Glaciologist position 2006.
- Initiated and organized annual department graduation ceremonies (2003, 2004 and 2006)
- Organized Geography Department tours for Southwest Middle School science class, Lawrence KS, 2002, 2003, 2005
- Undergraduate Affairs Committee: Chair (2000-2004).
  - Revised B.S. degrees in the Department of Geography
  - Developed undergraduate guide to the Geography Program
  - Incorporated Atmospheric Sciences into the Geography Department
  - Led Advising activities
- Organized Department activities for KU Open House (October 5, 2002)
- Graduate Affairs Committee (1998-2000).
- Faculty search committee: GIS position 2001
PROFESSIONAL SERVICE – Continued

University of California, Los Angeles:

University Service
- Committee for Education Development

Department Service
- Graduate Affairs Committee (1994-1995).
- Various promotion committees.

Institute of the Environment
- Steering Committee: The UCLA Consortium for Global Change and Regional Impacts (Became the Institute of the Environment).

Other activities
- Presented commencement address at the UCLA Geography Graduation Ceremony. June 18, 1995
- Developed Department of Geography Computing Plan. With Stephen Matthews.
- Proposed and implemented new graduate and undergraduate computer laboratories in the Department of Geography.

PROFESSIONAL SERVICE (UCLA) – Continued

- Developed a Laboratory manual for Geography 5: People and Earth’s Ecosystems.
- Faculty Sponsor to the UCLA Student Research Program (SRP).
- Faculty Advisor to the UCLA branch of Association of Environmental Professionals (AEP).
  - Faculty fellow to Rieber Hall, 1993-94; Faculty fellow to Hedrick Hall, 1991-92 and 1992-93.

University of Delaware:
- Member of the University of Delaware Health Service Student Advisory Board, 1987-1988.
- Feddema, J.J. (Coordinator and Organizer), D.R. Legates, J.K. Titlow, G.H. Henderson, and Y. Schreuder (1986): Small Town Development on the Delmarva Peninsula. Day trip for a group of visiting geography students (led by Dr. P. Lukkes) from the University of Groningen, Netherlands.

COMMUNITY SERVICE

- Presentation on Biomes to Quail Run Elementary School 6th grade science class April 27, 2009
- Chess coach, Quail Run School 2009*-2010 (*2nd in K-6 at Kansas Scholastic championship)
- Led several ecology and weather discussion for Cub Scout Pack 3072, Lawrence KS. 2003-2005
- Led weather discussion in 2nd grade class, Foothill Elementary School, Boulder, CO, 2005
- Assisted community groups opposed to the placement of a Wal-Mart store across from Free State High School in Lawrence KS. Attended city planning and city commission meetings and created a GIS database and map of households opposing the development
COMMUNITY SERVICE – Continued

- Assisted local neighborhood to develop a traffic-calming plan on Harvard Road. Used GIS and aerial photos to develop and present plans to Lawrence, KS City Commission. The proposal was funded and implemented.
- Soccer Coach for Kaw Valley Soccer Association (2003-2008)

MEDIA ACTIVITIES

- Numerous paper and radio interviews on Kansas climate change and research including KPR, AP news releases on white roof paper etc (2009)
- Interview for book on Climate Science and the Media with Simran Sethi and Heather Muller, April 15, 2009.
- Interview KTWU Sunflower Journey’s episode 2110 Adaptation and Growth, aired Dec 11, 2008
- Multiple News paper and Radio interviews including NPR, on Climate change in Kansas, including nation wide AP story (2008-2009)
- Fox 4 News (Kansas City) special and KCEP (PBS station in Kansas City) TV appearances on climate change and numerous media stories about climate change and proposed Holcomb coal power plant construction for Kansas Public Radio and other media outlets (2008)
- Multiple newspaper and web news source interviews for land cover change studies (2005/6)
- Interview with KC Channel 5 TV (2005)
- Interviewed for a research article on global change by the Daily News (London), 2000
- Television interview with T.C. Meierring on air pollution for the Science and Technology section of the CNN Headline News program, May 1989.
- Radio Interview on atmospheric pollution, WLIM Radio, Wilmington, DE, 11/22/88.
- Tombstone Erosion Reveals History of Air Pollution; Article in the Wilmington News Journal/The Morning News (DE), November 21, 1988 (portions of this article were released on the AP newswire and published nation wide including, The New York Times (12/4/88), The Los Angeles Times (11/28/88), The Chicago Tribune (11/24/88), and numerous other news papers.
Curriculum Vitae

PETER H. HERLIHY, PH.D.

CONTACT DATA
Phone: 785-864-4292
Fax: 785-864-5276
Email: herlihy@ku.edu

EDUCATION
Ph.D. 1986 Geography, Louisiana State University.
M.A. 1979 Geography, University of Vermont.
B.S. 1975 Marketing, Syracuse University.

RESEARCH INTERESTS
Cultural & political ecology, indigenous peoples, rainforest conservation, participatory research mapping, property regimes, and ethnic territories or homelands.

REGIONAL SPECIALIZATIONS
Central America, Mexico, and Peru.

WEB PAGES
Associate Professor of Geography
http://www2.ku.edu/~geography/peoplepages/Herlihy_P.shtml
Associate Director of the Center of Latin American Studies
http://www2.ku.edu/~latamst/
First American Geographical Society Bowman Expedition Leader - México Indígena
http://web.ku.edu/~mexind/

ACADEMIC POSITIONS
2005-present. Associate Director & Graduate Advisor, Center of Latin American Studies University of Kansas (Acting Director, spring 2006)
2005 & 2008 Visiting Professor, Coordinación de Ciencias Sociales y Humanidades, Universidad Autónoma de San Luis Potosí, México
1999-present. Associate Professor of Geography
University of Kansas.
1993-1999. Assistant Professor of Geography
University of Kansas.
1992-1993. Associate Professor of Geography and Anthropology
Southeastern Louisiana University.
1986-1992. Assistant Professor of Geography and Anthropology
Southeastern Louisiana University.
1984-1986. Instructor of Geography and Anthropology,
Southeastern Louisiana University.
AFFILIATED DEPARTMENTS
2005-present. Coordinación de Ciencias Sociales y Humanidades, Universidad Autónoma de San Luis Potosí, México
1993-present. Center of Latin American Studies, University of Kansas
1993-present. Environmental Studies Program, University of Kansas

COURSES TAUGHT
Seminar on Central America Central America Lands and Peoples
Cultural Ecology Seminar Cultural Ecology
Geography of Latin America Geography of North American Indians
Geography of Middle America Geography of the Third World
World Regional Geography Indigenous Peoples of Latin America
Cultural Anthropology Louisiana Geography
Cultural Geography Physical Geography

NATIONAL AND INTERNATIONAL SERVICE
• 2006-present. Principal Member, Committee on Technical Methods & Geographic Information, U.S. Commission on Geography, Pan American Union of Geography and History (PAIGH).
• 1986-89. Board of Directors, Conference of Latin Americanist Geographers.

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS
Association of American Geographers
Conference of Latin Americanist Geographers
Fulbright Alumni Association
Phi Beta Delta Society for International Scholars
Phi Kappa Phi National Honor Society
Society for Applied Anthropology

PROFESSIONAL HONORS & AWARDS
2008 First American Geographical Society (AGS) Isaiah Bowman Scholar
2007 ESRI Special Achievement in GIS Award.
2007 Fellow of the Society for Applied Anthropology.
2004 University of Kansas Kemper Fellowship for Teaching Excellence.
2004 US Department of State Exchange Grant with U. San Marcos, Peru.
2001 Inducted into Phi Beta Delta Society for International Scholars.
1997-98  Leader of Honduran-German Rio Plátano Biosphere Project.
1990.  US Fulbright Senior Scholar Research Grant to Honduras.
1986-87.  Organization of American States Training Fellowship to Panama.
1985.  Southeastern Louisiana University Orr Faculty Research Grant.
1982-83.  US Fulbright Dissertation Grant to Panama

BOOKS/MANAGEMENT PLANS/THESIS


ARTICLES OR CHAPTERS PUBLISHED (R = REFEREED OR EXPERT REVIEW)


1997. (con Andrew P. Leake) "Investigación Cartográfica Participativa de Tierras Indígenas de la Mosquitia Hondureña," Revista Geográfica (Instituto Geográfico Nacional, Tegucigalpa, Honduras), Número 5, Época 1, p. 116-139. (R)


►1995. "La revolución silenciosa de Panamá: Las tierras de comarca y los derechos indígenas," Mesoamerica 29:77-93. (R)


►1991. (with Andrew P. Leake) "Los Sumus Tawahkas: Un delicado equilibrio dentro de La Mosquitia," Yaxkin (Tegucigalpa, Instituto Hondureño de Antropología e Historia) XI (1988), No. 1, p. 109-121. (R)


MAP PUBLICATIONS


►1999. (co-compiler with Elmor Wood of cultural/political information) Departamento de Gracias a Dios, Honduras. Tegucigalpa, Instituto Geográfico Nacional (1:125,000, color).

►1999. Zonas de la Biosfera Río Plátano. Información obtenidas a través de investigadores comunitarias con colaboración de otros profesionales. Tegucigalpa, Instituto Geográfico Nacional (includes 14 zonal maps each at 1:50,000 covering about 6,000 km² in total, restricted circulation).

►1996. Reserva del Hombre y La Biosfera del Río Plátano. Delimitación técnica para la aprobación definitiva de nuevo Decreto Ley 170-97 para la ampliación de la misma. Tegucigalpa, AFE-COHDEFOR y GFA.


►1995. Tierras Indígenas del Darién 1993: Zonas de Subsistencia. Información obtenidas a través de encuestadores indígenas con colaboración de otros profesionales. Panama, Instituto Geográfico Nacional "Tommy Guardia" (includes 22 zonal maps each at 1:50,000 covering about 10,000 km², restricted circulation).

►1993. (con Andrew P. Leake) Tierras Indígenas de La Mosquitia Hondureña: Zonas de Subsistencia. Información obtenidas a través de encuestadores indígenas con colaboración de otros profesionales. Tegucigalpa, Instituto Geográfico Nacional (1:500,000, en color).

REPORTS, PAMPHLETS, AND PROPOSALS (SELECTED)
► 2008 (with México Indígena research team) *First Bowman Expedition Conference of the American Geographical Society*. Sponsored by The AGS, Universidad Autónoma de San Luis Potosí & The University of Kansas. 25 pages, plus maps and annex.


► 2006. (with México Indígena research team) Twelve Monthly Reports (Jan.-Dec.): “*México Indígena* Project Status Report” for the Foreign Military Studies Office (FMSO) and the American Geographical Society (AGS) on the development of both the Mexican Property Development Survey (MPDS) and the Mexico Open Source Geographic Information Systems (MOS-GIS).


MANUSCRIPTS IN PROCESS


**Research Funding (Last Ten Years)**

- **2007-08**  
  Project: “Mexican Open Source Geographic Information Systems: Indigenous Mexico”  
  Total Award: US $177,775 (awarded to PI Dobson and Co-PI Herlihy)

- **2006-07**  
  Project: “Mexican Open Source Geographic Information Systems: Indigenous Mexico”  
  Total Award: US $257,375 (awarded to PI Dobson and Co-PI Herlihy)

- **2005-06**  
  Project: “Mexican Open Source Geographic Information Systems: Indigenous Mexico”  
  Total Award: US $184,949 (awarded to PI Dobson and Co-PI Herlihy)

- **2005-06**  
  Project: “Mexican Property Development Survey”  
  Total Award: US $96,264 (awarded to PI Dobson and Co-PI Herlihy)

- **2005**  
  Project: “Cartografía participativa, tenencia de la tierra, uso de los recursos naturales y conservación ambiental en comunidades indígenas y mestizas de la Huasteca, Mexico”  
  Source: FOSEMARNAT, Fondo Sectorial de Investigación Ambiental - Mexico  
  Total Award: Pesos 330,000.00 (awarded to PI Miguel Aguilar and Co-PI Herlihy)

- **2005**  
  Support: US-Mexican Fulbright-Garcia Robles Grant  
  Total Award: US $26,800 (awarded to PI Herlihy)

- **2004**  
  Project: “Communal Land Titling, Natural Resource Conservation, and Social Conflict in the Neotropics”  
  Source of Support: General Research Fund, University of Kansas  
  Total Award: $6,391 (awarded to PI Herlihy)

- **2003**  
  Source: U.S. Department of State Exchange Grant  
  Total Award: US $99,810 (Herlihy funded for two months of research and teaching in Peruvian Amazon)

- **2001**  
  Support: KU Humanities Travel Grant Competition at the Hall Center  
  Total Award: $2,000.00
Source: NSF DDI (Social, Behavioral & Economic Sciences)
Total Award: $9,557

Support: KU General Research Fund, University of Kansas
Total Award: US $5,500.00

Support: Sabbatical-KU College of Liberal Arts and Sciences
Total Award: US $ 35,000

Support: NSF DDI (Social, Behavioral & Economic Sciences)
Total Award: US $4,950.00

Support: German Bank KfW and Development Organizations GTZ
Total Award: US$ 12,000,000; Herlihy consulted for GFA 18 months.

CONSULTANCIES (SELECTED)
• 2005-2008. Leader of the American Geographical Society Bowman Expedition Prototype for global place-based GIS research. Funded by the Foreign Military Studies Office (DoD), our tri-national collaboration is retooling regional geography and foreign area studies to show how Mexico’s gargantuan neoliberal land reform, PROCEDE, converts communal ejido lands from social to private property. Our database aims at producing the “digital human terrains” of indigenous Mexico (see our ESRI award-winning website, http://web.ku.edu/~mexind/).
• 1997-99. Long-term research consultant for the German Consultancy Gesellschaft Für Agrarprojekte (GFA) for a 12 million dollar GTZ-KfW project with the Honduran government (COHDEFOR) to develop a management plan employing a process of participatory subzonification for the conservation of the Río Plátano Biosphere Reserve in the Honduran Mosquitia.
• 1995. Research Consultant for German NGO Gesellschaft Für Agrarprojekte (GFA) for a two month feasibility study of the Río Plátano Biosphere Reserve in the Honduran Mosquitia (Funded by German Bank of Development & Reconstruction, KfW).
Herlihy Curriculum Vitae


• 1991-93. Adviser to the Land Legalization Program of Mosquitia Pawisa (MOPAWI) among the Indigenous Populations of La Mosquitia, Honduras.

• 1990-91. Research Associate at the Instituto Hondureño de Antropología e Historia, Honduras on the study of the ethnic populations of La Mosquitia.

FIELD RESEARCH (LOCATION, ETHNIC GROUP, DURATION)


• Field Research among the Teneek and Mestizo populations of the Mexican Huasteca Region, January to August 2005, and May 2006.

• Field Research in the “Huallaga Corridor” of Peruvian Amazon, April-May; and among the Miskito peoples of the Nicaraguan Mosquitia, June-July, 2004.

• Field Research among the Tenek and Mestizo populations of the Mexican Huasteca Region, August 2003.


• Field Research among the ethnic groups (Miskito, Garífuna, Pech, Tawahka, Ladino) of the Rio Plátano Biosphere Reserve, La Mosquitia, Honduras, March 1997 to May 1998, and July to August and November to December 1998.

• Field Research among the ethnic groups (Miskito, Garífuna, Pech, Ladino) of the Rio Plátano Biosphere Reserve, La Mosquitia, Honduras, November to December, 1995.

• Field research among the ethnic groups (Emberá, Wounaan, and Kuna) of Darién Province, eastern Panama, June to July, and October 1993.

• Field Research among the agricultural colonists of the Proposed Patuca National Park in La Mosquitia, Honduras, November to December 1992.

• Field Research among the ethnic populations (Miskito, Garífuna, Pech, and Ladino) of the Honduran La Mosquitia, eastern Honduras, August to September 1992.

• Field Research among the ethnic groups (Miskito, Garífuna, Pech, and Ladino) of the Río Plátano Biosphere Reserve in La Mosquitia, eastern Honduras, January to July 1991.

• Field Research among the Tawahka Sumu Indians along the Rio Patuca in La Mosquitia, eastern Honduras, January to July 1990.


• Group Study Exchange of Rotary International to India and Nepal, Spring 1986.
• Field Research among the Emberá and Wounaan (Chocó) Indians of Darién Province, eastern Panama, August 1982 to July 1983.
• Field Reconnaissance of ethnic groups of Darién Province, eastern Panama, Summer 1981.
• Field Assistant to Professor B. L. Turner II for Pre-Hispanic Maya Agriculture Project at Pulltrouser Swamp in Belize, Summer 1981.
• Graduate Research Associate, Institute for Environmental Studies, Department of Energy Salt Dome Project in northern Louisiana, Summer 1980.
• Field Assistant to Professor Robert C. West in Sonora, northern Mexico, Summer 1980.
• Spanish language study at Experiencia Educativa Bilingüe in Cuernavaca, Mexico, Fall 1979.
• Field Assistant to Professor Daniel W. Gade for Animal/Man Relationships Project in the Peruvian Amazon, Summer 1978.
• Land Use Planning Assistant at the Adirondack Park Agency, upstate New York, Fall 1975.

PRESENTATIONS (ONLY THOSE PRESENTED BY HERLIHY)
• 2007. (con Miguel Aguilar Robledo, Derek Smith, y Aida Ramos Viera) “México Indígena: Una analisis de PROCEDE en tierras indígenas,” Special Presentation to the Director of the Mexican National Geographic Institute INEGI, Dr. Mario Reyes. Aguacalientes, Mexico, 30 de Julio.
• 2006. Organizer and panelist of Special Session on “Participatory Research, Mapping, and Representing Peoples in Geography” at the Annual Meeting of the Association of American Geographers in Chicago, 9th March (abstract published).
• 2006. “History and Background of Participatory Mapping in Latin America,” Invited Professor of the Institute of Geography (Unidad Académica-Morelia) at the Mexican National Autonomous University (UNAM) and the International Institute for Geo-Information Science and Earth Observation (ITC)-Netherlands to teach part of the module “Cultural Geography and Participatory GIS,” in Morelia and La Huacana, Mexico, 20-24 January.
...
• 2003 “La cartografía participativa como piedra angular en investigaciones geográficas,” Invited Faculty Seminar Presentation at the Universidad Autónoma de San Luis Potosí, Mexico, 24-25 November.
• 2000. "Participatory Research and Geographic Inquiry," Invited Presentation at the Department of Geography Colloquium Series at the University of Tennessee, 27th of October.
• 1996. "Indigenous Peoples and Rain Forest Conservation in Central America Today," Invited Presentation by the Department of Geography (Chuck Bussing) and Latin American Studies at Kansas State University, Manhattan, Kansas, October 10.
• 1992. "Discovery and Exploration," Invited speaker for Academic Honors Convocation for the College of Arts and Sciences, Southeastern Louisiana University, Hammond, April 22.
• 1987. "Cambios culturales entre los Indios Emberá y Wounan del Darién, Panama," Invited speaker at the Facultad de Geociencia, Universidad de Panamá, Panama City, Panamá.
• 1987. "La ganancia de la Comarca Emberá (Chocó) en Darién," Invited speaker at Museo de Hombre Panameño (Instituto Nacional de Cultura), Panama City, Panamá.

**Thesis/Dissertation Advisees (Status, Research Grants)**
► **Doctoral Students (status/awards/organizational affiliation):** Derek Smith (Graduated 03, honors/NSF-DDI/Carleton U.), David Cochran (Graduated 05/IIE Fulbright & NSF-DDI/U. S..Mississippi), Roberto Castillo (Graduated 04/U. Costa Rica-U. Kansas Exchange/U. Costa Rica), Ratna Radhakrishna (ABD/IIE/Fulbright & FLAS/TA in dept.), John Kelly (ABD, preparing for field work), Aida Ramos, and Andy Hilburn (finishing classes)
► **M.A. Students (status/organizational affiliation):** Christy Knight (Graduated), Bjorn Sletto (Graduated/Geography/U. Texas-Austin), Elmor Wood (finishing thesis/works with NGO in Plátano Biosphere), Melissa Hartnett (finishing thesis).
► **Outside Geography:** I have served on over 20 thesis committees over the past five years.

**Synergistic Activities**
a. I designed and am directing an international project and First Bowman Expedition, called *México Indígena*, the prototype for the American Geographical Society and US Foreign Military Studies Office concept for “Global Place-based GIS Research.” We are retooling foreign area studies for the digital age, combining participatory mapping with GIS to explore how Mexico’s neoliberal land reform program (PROCEDE) converts communal *ejido* lands to private property. Our multi-scale GIS database aims at crafting “digital human terrains” of indigenous Mexico.
b. I have pioneered the use of the participatory research mapping (PRM) methodology in geography, anthropology, and other social and scientific work. Our participatory zoning and participatory GIS research uses participatory mapping as a *keystone activity* in research and applied work.
c. I’ve done baseline studies on the geography of indigenous peoples in Central America; in the Panamanian Darién region on the indigenous Emberá/Wounaan and their comarca homeland; in the Honduran Mosquitia region on the indigenous Miskito, Garífuna, and Pech and their biosphere reserves. Also, now with the México Indígena project I am studying indigenous peoples in Mexico.
d. I have worked on the establishment and management of conservation areas and indigenous homelands in Central America, working for the Honduran and German governments to define, delimit, and develop a management plan for the Río Plátano Biosphere, the Tawahka Asangni Reserve, and the Patuca National Park that make up the Mosquitia Protected Areas Corridor in Honduras.
e. I am an active Latin Americanist Geographer, engaged in research, teaching, and service: I am the Contributing Editor of “Central America and Hispanic Caribbean,” for the Handbook of Latin American Studies at the U.S. Library of Congress and I am also on the International Editorial Board of The Journal of Latin American Geography.

Updated January 2009
I am interested in researching and teaching the link between soils and the processes that form them across spatial and temporal scales. My research and teaching activities fit squarely within the stated mission of the department by investigating how human actions and natural processes interact in the physical environment past, present, and future.

My research relies on new approaches to understand soil-landscape interactions, particularly, the spatial and temporal structure of those interactions. I am working on innovative ways of interpreting soil morphology in terms of continuous variables, incorporating pedometric techniques in field sampling designs, formulating process-based models of soil-landscape properties at various scales, and assimilating these models into geographical information technologies in order to link properties to processes through space and time. As such, my interests fall into two categories: soil geomorphology and quantitative pedology. I am particularly fascinated by the importance of ubiquitous low-elevation mountain ranges to soil-geomorphic processes of arid environments (especially the Mojave Desert region), interactions between surface roughness, eolian-sediment flux, soil stability, and soil genesis, soil carbon and nitrogen cycling in deserts, watershed-scale paleohydrology reconstruction using carbonate depth functions and numerical modeling, relative and absolute age determination of soil surfaces, and quantitative analyses of soil morphology using novel technologies as a means of unraveling the self-organizing complexity of soil media. Most recently, I have become interested in quantifying and interpreting the spatial structure of soil macropore networks, which have notoriously proven difficult to quantify in the past. My work will aid in the determination of slip-rates across faults, the reconstruction of paleolandscapes, the stability assessment of landscape components, and the prediction of water, nutrient, and contaminant transport through the environment.

These same interests guide my teaching and mentoring activities. I am responsible for teaching GEOG 104 Principles of Physical Geography, which is a broad survey of properties and process of the Earth’s surface. This class gives me an opportunity to emphasize physical geography as a logical framework for understanding natural and anthropogenic forcing on the environment. I teach two upper division classes: GEOG 335/535 Introduction to Soil Geography (535 requires a term project mainly designed for graduate students) and GEOG 538 Environmental Soil Physics and Chemistry. Both GEOG 335/535 and 538 have intensive laboratory sections required with the class, which focus on standard techniques to analyze soils. My goal in these two classes is give students the ability to solve real-world environmental problems related to soils. I also teach a graduate-level GEOG 735 Soil Geomorphology class where we examine soils and landforms in the field. I believe undergraduate students are best prepared for their professions when they participate in research. Therefore, in my undergraduate classes, I encourage highly motivated and interested students to participate in my research activities by having them enroll in an independent studies class with me or by hiring them as research assistants.

My service promotes the mission of the department by assisting in department-level functioning and by outreaching to the larger community. I have served as a member of the curriculum committee where we worked to make several important changes to the curriculum including adding four new courses, changing one existing course, updating required courses for the B.S. in Geography, and submitting a proposal for a new M.S. degree in Geography. I have participated in the Globe-O-Mania event for Geography Awareness Week for the last two years and have served as a member of
the department’s outreach committee. I organized a new soil geomorphology research group and created a website showcasing soils and geomorphology research in the department. At the national and international levels, I serve as a member of the soil micromorphology committee in the Soil Science Society of America (SSSA), have organized a session, participated in business meetings, and assisted in planning retreats at the international SSSA conference, and served as a reviewer for Soil Science.
Daniel R. Hirmas

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EDUCATION

• Ph.D. in Soil and Water Sciences, University of California – Riverside, June 2008
  Dissertation: Surface Processes, Pedology, and Soil-Landscape Modeling of the Southern
  Fry Mountain Bolson, Mojave Desert, California

• M.S. in Soil Science, Texas Tech University, 2003
  Thesis: Degradation of Pedogenic Calcretes in West Texas

• B.A. in Biology, Texas A&M University, 1999

ACADEMIC APPOINTMENTS

• Courtesy Assistant Professor, Environmental Sciences Program, University of Kansas, Lawrence, KS, 2009-Present.

• Assistant Professor, Department of Geography, University of Kansas, Lawrence, KS, 2008-Present.

TEACHING EXPERIENCE

• Environmental Soil Physics and Chemistry, KU, Spring 2010
• Soil Geomorphology, KU, Spring 2009-10
• Principles of Physical Geography, KU, Spring 2009, Fall 2009
• Introduction to Soil Geography, KU, Fall 2008-9
• Regional Geomorphology of the United States, KU, Fall 2008

PROFESSIONAL AFFILIATIONS

• Soil Science Society of America (SSSA), 2001-Present
• American Geophysical Union (AGU), 2002-Present
• Association of Analytical Chemists (AOAC) International, 1999-2003

PROFESSIONAL SERVICE

• Member, Soil Micromorphology Committee, Soil Science Society of America, 2009 - 2011. This committee works to facilitate the planning and organization of soil micromorphology workshops and practicum at the annual meetings.

• Presiding Officer: Mineralogical Controls on Soil Physical, Chemical, and Biological Processes, Div. S09, ASA-CSSA-SSSA, New Orleans, LA, 4-8 Nov. 2007.

• Presiding Officer: Pedologic Progress, Philosophy, and Perspectives, Div. S05, ASA-CSSA-SSSA, Indianapolis, IN, 12-16 Nov. 2006.

HONORS AND AWARDS

• Kearney Foundation of Soil Science Graduate Fellowship, 2004-2006 ($64,965)
• UCR Dean’s Fellowship, 2003-2004 ($33,527)
• KU New Faculty General Research Program Grant, 2010-2011 ($7,950)
• Frank T. Bingham Memorial Fellowship, 2006-2007 ($2,000)
• UCR Graduate Dean’s Dissertation Research Grant, 2006 ($1,000)
• KU College of Liberal Arts and Sciences Faculty Travel Award, 2008 ($900)
• Stolzy-Letey Environmental Science Travel Scholarship, 2007 ($750)
• KU College of Liberal Arts and Sciences Faculty Travel Award, 2009 ($700)
• UCR Academic Senate Omnibus Field Research Travel Grant, 2006 ($500)
• Albert Marsh Environmental Sciences Scholarship, 2006-2007 ($400)
• UCR Graduate Student Association Conference Travel Grants, 2004-2007 ($2180 in total)
• AAAS Pacific Division J. Thomas Dutro, Jr. Geosciences Award, 2007 ($275)
• AAAS Pacific Division Student Travel Award, 2007 ($150)
• Western Soil Science Society/AAAS Pacific Division 1st Place Poster Award, 2007 ($150)
• Sigma Gamma Epsilon Geological Honor Society: Alpha Beta Chapter, Texas Tech University, 2002-2003

PROFESSIONAL ADVANCEMENT

• Geological Society of America Annual Meeting, 2008
• Western Society of Soil Science/AAAS Pacific Division, 2007
• Desert Project Tour, 2007
• World Congress of Soil Science, 2006
• Friends of the Pleistocene, Pacific Cell, 2005
• International Salinity Forum, 2005
• Learning ArcGIS 9, Online Course, UCR Extension/ESRI, 2005
• Mojave Desert Science Symposium, 2004
• Soil Science Society of America Annual Meeting, 2002-2009
• International Conference on Aeolian Research (ICAR-5), 2002
• Nematode Identification Short Course, Clemson University, 2000
INVITED PRESENTATIONS


- Kansas State University, Department of Geography. Soil Geomorphology of an Arid Mountain Bolson, Mojave Desert, USA. Seminar. 11 Sep. 2009.


PRESENTATIONS


PEER-REVIEWED PUBLICATIONS


MANUSCRIPTS IN PREPARATION


HIGHLIGHTED CONTRIBUTIONS


Individual Faculty Statement for Jay T Johnson

Since joining the department two years ago, I have endeavored to both add to as well as increase the breadth of the department’s teaching and research mission. My research has led me to the investigation of expressions of self-determination by Indigenous communities across the globe but particularly in former British colonies such as New Zealand, Australia, Canada and the United States. Within this research I have three particular areas of interest. First, there has been little work done comparing the efficacy of different approaches to Indigenous self-determination, especially between groups with similar colonial histories. I believe that such comparisons, demonstrating successes as well as failures, have the potential to assist Indigenous community leaders in creating better strategies for their own communities. Second, one of the primary issues facing Indigenous communities in exercising their self-determination is control over their lands and resources. My current work has shown me that there is a great deal of research needed into strategies for improving the access of Indigenous communities to their customary resources and lands, as well as creating or refining frameworks within Western legal systems to accommodate such access. A third area of current interest is how the exercise of Indigenous self-determination impacts the legal, political and social frameworks of settler-states. The push for partnership and sharing of sovereignty between Indigenous communities and state governments is beginning to have a profound impact on settler dominated societies and is changing the nature of national identities within these states.

My newest research interests have taken me toward investigating Indigenous conceptualizations of ‘place’ to uncover the political, cultural and economic tensions for these cultural groups, as they struggle to maintain their unique character in the face of ‘the grey uniformity’ of globalization. This has led me in two directions; first, toward an exploration of place-based education, including the critical pedagogies of place. This work, which has begun to connect place-based educational models with the ‘critical consciousness’ models of Paulo Freire, offers some exciting insights toward connecting ‘place’ with a decolonization pedagogy. The second direction has led toward research into the creation of Native places within the urban areas of white settler-states. I have just recently begun work on the creation of Native place within North American cities, with particular regard to the pow-wow movement as one method of creating Native places.

As a broadly trained cultural geography I have taken on the task of expanding the coverage of coursework in the BA program. In addition to teaching the 100 level course, Introduction of Human Geography, I have added a new undergraduate course at the 300 level entitled, Introduction to Cultural Geography which acts as a bridge between the introductory courses and those specialized cultural and regional courses at the 500 level. In the fall, I will teach a new regional course at the 500 level, Exploring Oceania. At the graduate level I have added the core course for the Global Indigenous Nations Studies program, Indigenous Peoples of the World, as a cross-listed course in geography. I have also started teaching a seminar on post-colonial theory.

Despite being relatively early in my career I have taken on national and international leadership within the discipline. I served as chair of the Indigenous Peoples Specialty Group of the AAG from 2004-2008 and currently serve as the inaugural chair of the Indigenous Peoples’ Knowledges and Rights Commission within the IGU. At KU, I am an active affiliate of the
Global Indigenous Nations Studies Program and am currently advising three of the MA students in that program. I have also begun working with Dr. Daniel Wildcat of Haskell Indian Nations University and KU Professor Joane Nagel on an EPSCoR funded program which assists tribal college students to learn research skills with the goal of transitioning to research universities for graduate study. I am currently advising two former Haskell undergraduate who are currently pursuing Masters Degrees in geography at KU.
CURRICULUM VITAE

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EDUCATION

PHD, Geography, University of Hawai‘i at Mānoa, December, 2003
Comprehensive Examination Areas, May, 2001
  Cultural Geography
  Social Geography


GCERT, International Cultural Studies, University of Hawai‘i at Mānoa, May, 2000

MSW, University of Kansas, May, 1991
Major: Medical Social Work

BA, University of Kansas, January, 1987
Major: Russian and Eastern European History
Minor: American History

EMPLOYMENT HISTORY

August, 2008 – present  Assistant Professor – Department of Geography; Courtesy Assistant Professor, Global Indigenous Nations Studies Program, University of Kansas.

May, 2006 – present  Adjunct Senior Fellow – Department of Geography, University of Canterbury, Christchurch, New Zealand.

Jan., 2006 – Aug., 2008  Assistant Professor and Co-Coordinator of The Indigenous Studies PhD Track, Department of Anthropology and Geography; Affiliated Faculty, Native American Studies; Co-Director, Human Rights And Human Diversity Initiative, University of Nebraska, Lincoln.

Aug., 1998 – May, 2003  Graduate Teaching Assistant and Instructor – Department of Geography, University of Hawai‘i at Mānoa.


Aug., 1995 – May, 1996  Instructor, Haskell Indian Nations University, Lawrence, Kansas.


PUBLICATIONS AND PRESENTATIONS

PUBLICATIONS – REFEREED


Johnson, Jay T., Renee Pualani Louis, and Albertus Hadi Pramono. 2006. Facing the Future:


PUBLICATIONS – NON-REFEREED


PUBLICATIONS – UNDER REVIEW


EDITOR – JOURNAL SPECIAL EDITION


MANUSCRIPTS IN PROGRESS


Johnson, Jay T. ‘A map of tribal areas’: Mapping Pākehā Authority onto Māori Communities. *Cartographica*.

PROFESSIONAL PRESENTATIONS

SCHOLARLY PRESENTATIONS

“Dancing into place: the role of the pow-wow within urban Indigenous communities,” Indigenous Urbanization in International Perspective Conference, Saskatoon, Canada, 2009


“Is Saying Sorry Enough? The Search for Truth and Reconciliation” Association of American
Geographers, Las Vegas, 2009
“Storied Landscapes: Place-based learning and knowing,” Language in Landscape Conference, Navajo Reservation, 2008
“Waitangi’s Contested Landscape,” International Geographical Union Conference; Brisbane, Australia, 2006
“‘A map of tribal areas’: Mapping Pākehā authority onto Māori communities,” Indigenous Cartography and Representational Politics Conference; Cornell University, Ithaca, New York, 2006
“Re/placing Native science: Indigenous voices in contemporary constructions of nature,” Association of American Geographers Annual Meeting; Chicago, IL, 2006
“Waitangi: A contested landscape,” Canterbury Branch of the New Zealand Geographical Society; Christchurch, New Zealand, 2005
“Waitangi: A contested landscape,” Association of American Geographers Annual Meeting; Denver, CO, 2005
“Indigeneity’s challenges to the white settler-state: creating a space for ‘dynamic citizenship’,” Association of American Geographers Annual Meeting; Philadelphia, PA, 2004

PAPER SESSIONS

SCHOLARLY PANELS
“Strengthening Collaborations: the role of academics and theory in indigenous mapping projects” Indigenous Cartography and Representational Politics Conference; Cornell University, New York, 2006

INVITED SEMINAR PRESENTATIONS
“Dancing into place: the role of the pow-wow within urban Indigenous communities,” Macquarie University, Sydney, Australia, 2010
“Indigenous Self-determination and Resource Management: Aotearoa/New Zealand and Nunavut Territory, Canada,” Lincoln University, Lincoln, New Zealand, 2010
“Place-based learning and knowing: Critical pedagogies grounded in Indigeneity,” University of Missouri – Columbia, Department of Geography, 2007
“Re/placing Native Science: Indigenous Voices in Contemporary Constructions of Nature” seminar presentation for the Departments of Human Geography and Aboriginal Studies at Macquarie University; Sydney, Australia, 2006 and the Department of Geography at the University of Canterbury, Christchurch, New Zealand, 2006.
“Bridging the Cultural Studies – Indigenous Studies divide: Can we find a place for critical theory in country?” International Cultural Studies Seminar Series, University of Hawai‘i at Mānoa, Honolulu, HI, 2005

GRANTS AND FELLOWSHIPS
New Faculty General Research Fund, 2009, University of Kansas, $7,945, successful
Big XII Fellowship, 2007, University of Nebraska – Lincoln, $2,500, successful

AWARDS

Certificate of Recognition for Contributions to Students, University of Nebraska – Lincoln Parents Association, 2007
H. J. Wiens Memorial Award, annual award given to one graduating M.A. or Ph.D. student based on the student’s scholarly record including thesis and other contributions to the department, University of Hawai‘i at Mānoa, Department of Geography $200, 2004
University of Hawai‘i at Mānoa Graduate Student Organization Travel Award $760, 2003 (Travel to present at the New Zealand Geographical Society 22nd Conference)
University of Hawai‘i at Mānoa College of Social Sciences Travel Award $700, 2000, 2002 (Travel to present at academic conferences)
First Place, Geography Student Cartographic Design Competition, University of Hawai‘i at Mānoa, 2000
Graduate Teaching Assistantship, University of Hawai‘i at Mānoa, 1998-2002
World AIDS Day Award, US Department of Health and Human Services, 1992
Phi Alpha Theta, International Honor Society in History, University of Kansas, 1986

PROFESSIONAL ACTIVITIES

PLENARY SESSIONS
Chair: “Indigenizing Spaces: Deep-Spatial Perspectives on Place,” keynote presentation by Dr. Daniel Wildcat, Haskell Indian Nations University, Association of American Geographers Annual Meeting; Boston, MA, 2008
Organizer: “Challenging the collaborative ideal: exploring the dilemmas in joint research with indigenous claimants to New Zealand’s Waitangi Tribunal,” keynote presentation by Dr. Brad Coombes, University of Auckland, Association of American Geographers Annual Meeting; San Francisco, CA, 2007
Organizer: “Environmental Justice from a Native Perspective,” keynote presentation by Winona LaDuke, Association of American Geographers Annual Meeting; Chicago, IL, 2006

PAPER SESSIONS
Organizer: “Colonialism and Place in Settler Colonies: Indigenous Agency and the
Construction of Nature in the Contact Zone,” Association of American Geographers Annual Meeting; Chicago, IL, 2006

GRANT REVIEWER
Ford Foundation Diversity Fellowships Program, 2009
Marsden Fund of the Royal Society of New Zealand, 2007

EDITORIAL BOARD MEMBER
Journal of Historical Geography
Human Geography Journal

MANUSCRIPT REVIEW
ACME: An International E-Journal of Critical Geography
Gender, Place and Culture
Genocide Studies and Prevention
GEOFORUM
Geografiska Annaler Series B: Human Geography
Geographical Research
GeoJournal
Journal of Cultural Geography
New Zealand Geographer
Political Geography
Society & Natural Resources
The Geographical Journal

COURSES ATTENDED

PROFESSIONAL MEMBERSHIPS
Native American and Indigenous Studies Association, 2009 – present
International Geographic Union, 2005 – present
Chair of the Commission on Indigenous Peoples’ Knowledges and Rights, 2006 – 2010
Society for Advancement of Chicanos and Native Americans in Science, 2001 – present
Association of American Geographers, 1999 – present
   Specialty Group Memberships
   Indigenous Peoples
   Ethics, Justice, and Human Rights
   Cultural Geography
Member of the Indigenous Peoples Specialty Group Board of Directors, 2002-2004
TEACHING EXPERIENCE

UNDERGRADUATE COURSES
Intermediate Human Geography, University of Kansas, (Fall semesters, 2008 - 2009)
Cultural Survival: Indigenous Peoples’ Rights, University of Nebraska – Lincoln, (Fall semester, 2006 - 2007)
Introduction to Human Geography, University of Nebraska – Lincoln, (Fall semester, 2006) and University of Kansas (Spring semester, 2009)
Cultural Geography, University of Nebraska – Lincoln, (Spring semester, 2006 - 2007)
Research Methods in Geography, University of Canterbury, (Spring semester, 2005)
Māori and Indigenous Science and Technology, University of Canterbury, (Spring semester, 2005 - 2006)
Resource and Environmental Management, University of Canterbury, (Spring semester, 2005)
Resources and Sustainability, University of Canterbury, (Spring semester, 2005)
Geography of North America, University of Hawai‘i at Mānoa, (Spring semester, 2001)
Regional Analysis: The Geography of Indigenous Nations, University of Hawai‘i at Mānoa, (Fall semester, 2000 and Spring Semester, 2002)
HIV/AIDS Peer Education, Haskell Indian Nations University, (Fall semester, 1995 and Spring semester, 1996)

GRADUATE COURSES
Indigenous Peoples of the World, University of Kansas, (Fall semesters, 2008 - 2009)
Seminar on Place and Nature, University of Nebraska – Lincoln, (Spring semester, 2008)
Post-colonial Geographies, University of Nebraska – Lincoln, (Spring semester, 2007) and University of Kansas (Spring semester, 2009)
Comparative Studies in Indigenous Dispossession, University of Nebraska - Lincoln, (Spring semester, 2006)
Comparative Indigenous Nations Studies, University of Canterbury, (Fall semester, 2005)
Human Behavior and the Social Environment, University of Kansas, (Spring semester, 1995)
Social Work and HIV/AIDS, University of Kansas, (Spring semesters, 1994-96)

GRADUATE TEACHING ASSISTANT
Geography of Japan, University of Hawai‘i at Mānoa, (Spring semester, 2000)
Geography of Hawai‘i, University of Hawai‘i at Mānoa, (Fall semester, 1999)
World Regional Geography, University of Hawaiʻi at Mānoa, (Fall semester, 1998)

THESIS SUPERVISION

CHIEF SUPERVISOR: PhD
William Price, Geography, University of Kansas, in progress
Peters Omorogie, Geography, University of Kansas, in progress
Sean Pummill, Geography, University of Nebraska - Lincoln, passed to candidacy, May, 2008

COMMITTEE MEMBER: PhD
John Oakes, Geography, University of Kansas, in progress
Shimantini Shome, Geography, University of Kansas, in progress
Jessey Gilley, Geography, University of Kansas, in progress
Megan Holroyd, Geography, University of Kansas, passed to candidacy, May, 2009
Heather Putnam, Geography, University of Kansas, passed to candidacy, May, 2009
Sarah Hemmingsen, Geography, Australian National University, Indigenous traditional resource management: An Australia and New Zealand Comparison, awarded July, 2009 (employed by the Waitangi Tribunal, Wellington, New Zealand)
Ezra Zeitler, Geography, University of Nebraska-Lincoln, Geographies of Indigenous-Based Team Name and Mascot use in American Secondary Schools, awarded with distinction May, 2008 (Assistant Professor at the University of Wisconsin-Eau Claire)
Simon Lambert, Geography, Lincoln University, New Zealand, The expansion of sustainability through new economic space: Maori potatoes and cultural resilience awarded April, 2008 (employed as a research officer by the Agribusiness and Economics Research Unit at Lincoln University, Lincoln, New Zealand)

CHIEF SUPERVISOR: MASTERS
Joshua Meisel, Geography, in progress
Paula Smith Bearhill, Geography, in progress
Sonya Ortiz, Global Indigenous Nations Studies, in progress
Victoria Walsey, Global Indigenous Nations Studies, in progress
Ashley Barnett, Geography, University of Nebraska - Lincoln, The Politics of Identity in the State of Israel: Nationalism, Archaeology, and the Israel Parks Association, awarded December, 2007 (pursuing PhD at UNL)
Franklin Ginn, Geography, University of Canterbury, Negotiating Nature: from wilderness to garden and back again, awarded with distinction, February, 2006 (pursuing PhD at Kings College London)

COMMITTEE MEMBER: MASTERS
Jamie Shinn, Geography, University of Kansas, in progress
Nasbah Ben, Global Indigenous Nations Studies, in progress
Samantha Kirkley, Anthropology, University of Nebraska-Lincoln, In small things unnoticed: an interpretation of 19th century ironstone maker's marks, May, 2008
Amanda Anderson, Anthropology, University of Nebraska-Lincoln, non-thesis option, May, 2008
Katie Haselwood, Geography, University of Nebraska-Lincoln, Childbirth in homesteading communities of the Great Plains, 1862-1920, December, 2007 (pursuing PhD at University of Kansas)
Sarah Kohtz, Geography, University of Nebraska-Lincoln, non-thesis option, May, 2007

CHIEF SUPERVISOR: UNDERGRADUATE
Charles A Lippstreu, University of Nebraska – Lincoln, Bolivia on New Terms: Evo Morales and Indigenous Socialism, completed August, 2008, Honors awarded with distinction

SERVICE
SERVICE ON UNIVERSITY AND DEPARTMENTAL COMMITTEES
Member, Scholarship and Admissions Committee, Global Indigenous Nations Studies Program, University of Kansas, 2009-present
Faculty Advisor, Global Indigenous Nations Studies Student Association, University of Kansas, 2009-present
Member, Geography Undergraduate Curriculum Committee, Geography Department, University of Kansas, 2008-present
Co-Director (with Professor Brian Lepard), Human Rights and Human Diversity Initiative, University of Nebraska – Lincoln, 2007 - 2008
Co-Coordinator (with Professor Carleen Sanchez), Indigenous Studies PhD Track, Department of Anthropology and Geography, University of Nebraska – Lincoln, 2006 – 2008
Member, Geography Graduate Committee – University of Nebraska – Lincoln, Department of Anthropology and Geography, 2006 – 2008
Member, Equity and Diversity Committee – University of Canterbury, College of Science, 2005
Member, Student - Staff Committee - University of Canterbury, Department of Geography, 2004-05
Member, Academic Committee - University of Canterbury, Department of Geography, 2004-05
Member, Graduate Admissions Committee – University of Hawai‘i at Mānoa, Department of Geography 2002
Member, Graduate Program Committee - University of Hawai‘i at Mānoa, Department of Geography 2000-01

COMMUNITY SERVICE
Mentor: Māori and Indigenous Graduate Student National (NZ) Programme, Te Tapuae o Rehua, Christchurch, New Zealand, 2004-2005
Appearance on EARTH, a Tele-school program produced by the Department of Education, State of Hawai‘i, 2000
Co-Chair: Kansas Ryan White CARE Act Title II Consortium, Kansas Department of Health and Environment, 1994-1996
Chair: AIDS Care Coordination Committee, Kansas AIDS Networking Project, 1990-1994
Departmental Review Statement

William C. Johnson

Research
Advanced education consisted of a BS in Geology (minor in climatology/meteorology), MS in Physical Geography (Geomorphology & Soils), and PhD in Physical Geography (Quaternary geology, fluvial geomorphology & soils). Research focuses on recent Earth geologic and environmental history (paleoclimate & paleobiogeography), with specific themes including (1) Geologic mapping of Neogene and Quaternary geology, (2) Stratigraphic investigations of Quaternary-age eolian deposits, (3) Stable isotope geochemistry of sediments, (4) Geoarchaeology, and (5) Fluvial Geomorphology. Geologic mapping of Neogene (~25–2.3 million yrs ago) and Quaternary (2.3-0 million yrs ago) geology in the central Great Plains, primarily Kansas, has been an ongoing research interest for nearly 25 years. This research, supported in the past by NSF and in recent years by annual awards from the US Geological Survey STATEMAP and EDMAP programs, yields three important results: new geologic discoveries, geologic map products available to the public through the Kansas Geological Survey, and the training of up to five aspiring student geoscientists/physical geographers (undergraduate & graduate) each year. Stratigraphic investigations of Quaternary-age eolian (wind) deposits have driven much of my published research. The central Great Plains are mantled, to a large extent, by fine-grained, wind-deposited material: deposits of silt (dust) called “loess” and sand, forming sheets and dunes. Loess deposits, sometimes reaching thicknesses of 50+ meters, contain detailed histories of past environmental conditions (climate and biogeography), and, as such, are an incredible archive of regional prehistory. In cooperation with colleagues (UNL & KSU), I am undertaking a multi-year quest to date times when dune fields and sand sheets were active (blowing sand) during the past. The chronology of these prehistoric events is being chronicled using luminescence dating technology, which is telling us much about the paleoenvironments of the region. Stable isotope geochemistry is an essential item in the tool kit when looking at the record of past vegetation: ancient soils (paleosols) are analyzed for their isotopic composition to derive the plant types at that time. Geoarchaeology (geoscience used to interpret landscape and environmental histories at archaeological sites) has been a career-long research theme, with research ranging from the Arctic, Central America, Caribbean, Europe and Africa to all parts of North America. Most recent work is focused in interior Alaska and the central Great Plains. Lastly, Fluvial geomorphology, the study of river system landforms, is an interest persisting since the PhD and focuses on reconstructing riverine histories in the central Great Plains. Much of this research is conducted in concert with geologic mapping and geoarchaeology.

Teaching
The core of the non-atmospheric program in Physical Geography has traditionally consisted of a soils specialist, biogeographer (currently vacant) and geomorphology/landform specialist. I serve as the latter and have taught a wide array of undergraduate and graduate courses dealing with landscape processes, form and history. Consequently, I am responsible for the lecture and laboratory sections of introductory physical geography (GEOG 104 lecture & GEOG 105 laboratory). Each semester, I teach one lecture section and coordinate the other three sections (curriculum, textbook), while, as for laboratory sections, I have written the laboratory exercise manual (Kendall-Hunt) and supervise the eight graduate laboratory instructors. I also serve as on-campus coordinator for the GEOG 714 Field Experience course taught each summer. Given an expertise in geoscience, I routinely advise and instruct students from allied departments, especially Geology.
Service
As departmental Undergraduate Advisor and Chair of the Undergraduate Studies Committee, duties are directly related to the mission of the department. I am primary advisor to all undergraduate majors and, as such, conduct major declarations, major degree certifications, various petitions, Study Abroad course equivalencies, Honor Program coordination and other related tasks. Significant departmental service in the past has included six years as departmental associate chair and Chair of the Faculty Affairs Committee, and nine years as Graduate Advisor and Chair of the Graduate Studies Committee.

Given the field orientation of my research, service extends beyond the university to the residents of Kansas. During mapping and other field activities, I regularly interact with landowners and local officials. Information that I glean from landscape investigations is conveyed in an effort to help with management and other local problems, or to simply provide a better understanding of the landscape. As one western Kansas resident recently stated in a letter to the department, “Here on our farm, Bill has been studying playa lake formation. Like thousands of other farmers in western Kansas, we have a number of these naturally occurring depressions on various fields and pastures. Through Bill’s work, he’s been able to explain to us and others why they are important and how they were formed.”
Curriculum Vitae

WILLIAM CHARLES JOHNSON
Professor of Geography
Quaternary Geologist

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The University of Kansas
Lawrence, Kansas 66045-7613

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785.864.5143 (dept. office)
785.864.5378 (fax)
wcj@ku.edu

http://web.ku.edu/~soil
http://www2.ku.edu/~geography/peoplepages/Johnson_W.shtml

Advanced Education

Doctor of Philosophy (1976) Department of Geography, University of Wisconsin-Madison
Dissertation: The Impact of Environmental Change on Fluvial Systems: Kickapoo River, Wisconsin (James Knox, advisor)

Master of Science (1971) Department of Geography, Northern Illinois University (with Honors)
Thesis: Discrimination of Stagnation Moraine from End and Ground Moraine on the Missouri du Coteau and Coteau des Prairies of North Dakota

Bachelor of Science (1968) Department of Earth Sciences, Northern Illinois University (with Honors)
 Majors (2): Geology and Meteorology/Climatology

Academic Appointments

Research Associate Kansas Geological Survey, The University of Kansas 8/06-present
Associate Chair Department of Geography, The University of Kansas 1/99-8/05
Full Professor Department of Geography, The University of Kansas 8/97-present
Research Affiliate Civil and Environmental Engineering, MIT 11/95-5/02
Associate Professor Department of Geography, The University of Kansas 8/81-7/97
Assistant Professor Department of Geography-Meteorology, The University of Kansas 8/78-8/81
Assistant Professor Department of Geography, University of Oklahoma 8/76-5/78
Lecturer Department of Geography, University of Wisconsin - Milwaukee 8/75-5/76

Curricula

Biogeography Palynology Quaternary Stratigraphy
Field Camp Plant Geography Research Methods
Field Mapping Methods Principles of Physical Geography River Systems
Fluvial Geomorphology Quaternary Dating Techniques Rock Magnetic Analysis
Geoarchaeology Quaternary Environments Seminar (many topics)

Research Themes

Geologic mapping of Neogene and Quaternary deposits: field mapping and development of large-scale digital maps of surface and near-surface geology for selected areas of central and western Kansas
http://www.kgs.ku.edu/General/Geology/index.html

Quaternary stratigraphy: litho-, chrono-, pedo-, bio-, and magnetostratigraphy of eolian deposits (loess and sand) in the central Great Plains, and environmental (flora, fauna, climate) reconstruction

Stable isotope geochemistry: application of stable isotopes (δ13C, δ15N, δ18O) to soil-vegetation-climate relationships in modern soils and paleosols of the central Great Plains

Geoarchaeology: paleoenvironmental conditions and landscape evolution in the central Great Plains, as related to prehistoric peoples; modeling the distribution of surface and buried cultural materials

Fluvial geomorphology: stream system response to late-Quaternary (middle-late Pleistocene and Holocene) climatic variation, and development of alluvial chronostratigraphies
Grants

2006-2010

Database development: Playa basin occurrence on the High Plains of Kansas: Kansas GIS Policy Board, $33,904, 8/07-6/08.
Undergraduate Research Assistantship Fund: The University of Kansas Center For Research, $2500, 7/07-8/07.
Timing and Environment of the Last Interglacial Period in the Central North American Continent: The University of Kansas General Research Fund, $5,000, 7/07-6/08.
Mapping and characterization of playa basins on the High Plains of western Kansas and development of a regional subclass-specific guidebook for applying the hydrogeomorphic (HGM) approach to assessing wetland functions of playa basin depressional wetlands: U.S. Environmental Protection Agency, $249,956, 10/06-9/09. (Johnson and Egbert)
Soil development and carbon sequestration along the east-west climatic gradient of the central Great Plains—forest/prairie ecotone of central Missouri to the foothills of the Colorado Rockies: The University of Kansas General Research Fund, $1,780, 7/06-6/07.
Mapping surface geology in Republic County, Kansas (Year 1): U.S. Geological Survey EDMAP Program, $12,000, 5/06-4/07.

2001-2005

Detection and mapping of the Santa Fe Trail in the Kansas City Green Way Project Zone: Challenge Grant Program, National Park Service Long Distance Trails Group, $5,000, 6/05.
Geologic mapping and compilation of digitized county data bases in Geary, Washington, Norton, and Dickinson Counties, Kansas: USGS STATEMAP Program, $138,480, 5/05-4/06. (McCauley, Newell, West, and Johnson)
Mass spectrometry laboratory facility for stable isotope analysis: W.M. Keck Foundation, $492,000, 7/04.
(Nguyen et al.)
National Register of Historic Places Evaluation of the Caenen and Paul Sites, Stranger Creek Valley, Leavenworth County, Kansas: Kansas State Historical Society, $66,171, 5/04-4/05. (Logan and Johnson)
Vertical distribution of SOM δ13C values in upland soils from ungrazed watersheds with 1-, 2-, 4-, and 20-year burn frequencies: Kansas State University Konza LTER Project (NSF-funded), $2,000, 1/04-12/04.
Acquisition of isotopic ratio mass spectrometers and related peripherals for geologic, paleoenvironmental and environmental research at The University of Kansas: NSF-EAR MRI Program, $629,301, 9/03-8/06
(Gonzalez et al.)
A key to the prehistory of the central Great Plains: microfossil remains from the depths of Big Basin, Clark County, Kansas: The University of Kansas General Research Fund, $6,390, 7/03-6/04.

W.C. Johnson - 2


Mapping surface geology in Morton County, Kansas (Year 1): U.S. Geological Survey EDMAP Program, $11,000, 5/02-5/03.

Relationship of soil chemistry and mineralogy to Cs, Pb, and PGE distribution, and implications to erosion evaluation models: U.S. Army Engineer Research & Development Center (BAA Program), $200,000, 3/02-3/04. (Johnson and Macpherson)

Geologic mapping and compilation of digitized county data bases in Saline, Crawford, Pawnee and Edwards Counties, Kansas; and compilation of a digital geologic map base from existing maps in a portion of Wabaunsee County, Kansas: U.S. Geological Survey STATEMAP Program, $150,516. (Brady, Johnson, West, McCauley, and Collins)

Doctoral Dissertation Research: Modeling the effect of climate on erosion and deposition events in the loess canyons of the Breaks, Cheyenne County, Kansas: NSF-G&RS, $10,000, 8/01-7/03. (for K.L. Willey)

Geologic mapping and compilation of digitized county data bases in Barber, Crawford, and Gray-Hodgeman Counties, Kansas; and compilation of a digital geologic map base from an existing map in Pottawatomie County, Kansas: U.S. Geological Survey, STATEMAP Program, $132,690, 5/01-4/02. (Brady et al.)

Geologic mapping and compilation of digitized county data bases in Barber, Crawford, and Gray-Hodgeman Counties, Kansas; and compilation of a digital geologic map base from an existing map in Pottawatomie County, Kansas: U.S. Geological Survey, STATEMAP Program, $32,564, 5/01-4/02. (Brady, Johnson, West, McCauley, and Collins)

Geologic mapping and compilation of digitized county data bases in Barber, Crawford, and Gray-Hodgeman Counties, Kansas; and compilation of a digital geologic map base from an existing map in Pottawatomie County, Kansas: U.S. Geological Survey, STATEMAP Program, $7,000, 5/01-4/02. (Brady, Johnson, West, McCauley, and Collins)


1996-2000

Relationships of soil chemistry and mineralogy to $^{137}$Cs, $^{210}$Pb and Platinum Group Elements distribution: U.S. Army, BT-25 Program (Environmental Quality Basic Research), $25,000, 11/00-10/02. (Johnson and Macpherson)

Relationships of soil chemistry and mineralogy to $^{137}$Cs, $^{210}$Pb and Platinum Group Elements distribution: U.S. Army, BT-25 Program (Environmental Quality Basic Research), $5,000, 11/00-10/02. (Johnson and Macpherson)

Cynomys sp. (prairie dog) and Spermophilous sp. (ground squirrel) bone-derived carbon ($\delta^{13}$C) and oxygen ($\delta^{18}$O) isotopic values as proxies of past climates in the central Great Plains: The University of Kansas General Research Fund, $4,762, 7/00-6/01.

Geologic mapping and compilation of digitized county data bases in Barber, Crawford, and Gray-Hodgeman Counties, Kansas; and compilation of a digital geologic map base from an existing map in Pottawatomie County, Kansas: U.S. Geological Survey, STATEMAP Program, $60,839, 5/00-4/01. (Brady, Johnson, West, McCauley, and Collins)


Geologic mapping and compilation of digitized county data bases in Barber, Crawford, and Gray Counties, Kansas and compilation of a digital geologic map base from existing maps in Johnson, Franklin, Osage, and Shawnee Counties, Kansas: U.S. Geological Survey, STATEMAP Program, $50,000, 5/99-4/00 (Brady, Johnson, West, McCauley, and Collins)


Reconstruction of past climates using the microbotanical record contained within loess deposits of the central Great Plains: The University of Kansas General Research Fund, $6,938, 7/98-6/99.


The magnetic and carbon isotope record of climate as derived from loess deposits of the central Great Plains: NSF-G&RS, 8/96-7/98, $119,968. (M.R. Farr, co-pi)

A proposal submitted to the STATEMAP Program of the U.S. Geological Survey, Department of the Interior, for completion of work in Greenwood and Bourbon Counties, Kansas, and new work in Comanche-Hamilton, and Kearny Counties, Kansas, to support field mapping and compilation of digitized data bases leading to a revised geologic map of Kansas: U.S. Geological Survey, 5/96-4/97, $153,129. (Brady, Johnson, West, McCauley, and Collins)

1991-1995

High-resolution climatic reconstruction in the central Great Plains: a pilot study: The University of Kansas General Research Fund, 7/95-6/96, $5,505.

Reconstruction of late Quaternary paleoclimates of the central Great Plains using magnetic and nonmagnetic parameters: NSF-G&RS, 6/95-5/96, $8,490.

A proposal submitted to the STATEMAP Program of the U.S. Geological Survey for continuation of work in Greenwood, Clark, Comanche, and Bourbon Counties, Kansas, and new work in Ford County, Kansas, to support field mapping and compilation of a digitized data base leading to a revised geologic map of Kansas: U.S. Geological Survey, 9/93-8/94, $131,385. (Maples et al.)

Approximation of age, extent, and risk potential of late-Quaternary faulting along the Chadron-Cambridge Arch in south-central Nebraska using geomorphic and shallow seismic-reflection techniques: U.S. Geological Survey (NEHRP), 4/93-3/95, $71,625. (Johnson, Miller, and Steeples)

Paleoenvironments and desertification of a large sand sheet in the central Great Plains: National Aeronautics and Space Administration, 8/92-95, $66,000.

Reconstruction of Glacial Age climates in the central Great Plains, The University of Kansas Office of Research, Graduate Studies and Public Service, 7/90-6/91, $6,160.

Pre-1991

Detailed mapping and dating of Quaternary-age deposits in Phillips County, Kansas: Dane G. Hansen Foundation, 7/89, $2,000.

Radiocarbon dating of soil humate fractions in late-Quaternary paleosols: NSF-G&RS, 2/89-8/90, $12,000.

Ranching culture and the Cimarron River: Hall Center for the Humanities, The University of Kansas, 4/88, $380.


Enhancement of Palynology Laboratory Facilities: Exxon Education Foundation, 9/85, $5,000.

A 620,000-year opal phytolith record from the loess of central Nebraska: National Geographic Society, 10/85-10/86, $6,900.

Development of a pollen-analysis laboratory for the study of Quaternary environments of the central Great Plains: The University of Kansas Office of Research, Graduate Studies and Public Service, 7/81-7/84, $89,757. (W. Dort, Jr., pi)

Reconstruction of past environments on the central Great Plains: The University of Kansas Office of Research, Graduate Studies and Public Service, 8/81-5/82, $4,523.

The impact of Prehispanic Maya agriculture on the physical environment: the Pulltrouser Swamp archaeological site of northern Belize: Tinker Foundation and The University of Kansas Center of Latin American Studies, 3/81, $7,500.

Funds for establishing a fossil-pollen extraction laboratory: The University of Kansas College of Liberal Arts and Sciences, and Office of Research, Graduate Studies, and Public Service, 6/80, $2,000.

Accurate prediction of river sediment loads: The University of Kansas Office of Research, Graduate Studies, and Public Service, 7/80-6/81, $4,005.


Recent climatic variation in the highlands of western Honduras: The University of Kansas Office of Research, Graduate Studies, and Public Service, 1979-80, $4,000.


Contracts

2006-2010

Geoarchaeology of the Shaw Creek archaeological sites, Tanana River Valley, Alaska: U.S. Army & Center for Management of Military Lands (Colorado State University), $19,000, 7/09-6/10.

Geoarchaeology of the McCormick Road Area of the Republican River Valley, Fort Riley, Kansas: U.S. Army & Center for Management of Military Lands (Colorado State University), $6,850, 1/09-12/09.


Geoarchaeology of buried Paleoindian sites (14RY6175 & 6176), Fort Riley, Kansas: U.S. Army & Center for Management of Military Lands (Colorado State University), $17,000, 3/06-12/06.

2001-2005

Phil Site Phase IV data recovery, analysis and report preparation: Bureau of Reclamation, $80,330, 9/05-6/06. (Logan and Johnson)


Phase IV excavation of the Phil site (14JW48), Lovewell Reservoir, Jewell County, Kansas: Bureau of Reclamation, $69,506, 10/04-9/06. (Logan and Johnson)

National Register of Historic Places evaluation of three archaeological sites at Lovewell Reservoir, Jewell County, Kansas: Bureau of Reclamation, $78,406, 7/04-3/05. (Logan and Johnson)

Data recovery and mitigation (site 41CV595) for Fort Hood, Texas: Center for Environmental Management of Military Lands—Colorado State University, $23,067, 1/03-12/03.

Temporal archaeological model for Fort Hood, Texas: Center for Environmental Management of Military Lands—Colorado State University, $10,641, 2/03-12/03.

3-D GIS visualization of the Kirwin National Wildlife Refuge: Bureau of Reclamation, $1,452, 9/02-5/03. (Logan and Johnson)

Archaeological survey of Kirwin Reservoir, Phillips County, KS: Bureau of Reclamation, $30,000, 5/02-12/03. (Logan and Johnson)

Geoarchaeology of the Kirwin Reservoir area, Phillips County, Kansas: The University of Kansas Office of Archaeological Research, $10,000, 5/01-3/02.

1996-2000

GIS modeling of landform evolution, Fort Riley, Kansas: Strategic Environmental Research and Development Program, $20,000, 1/00-7/00.


Geoarchaeology of the DB site, Ft. Leavenworth, Kansas—mitigation phase: U.S. Army Corps of Engineers-Kansas City District, 6/96-8/97, $35,867. (Logan and Johnson)

1991-1995

Geoarchaeology of the DB Site, Ft. Leavenworth, Kansas—testing phase: U.S. Army Corps of Engineers-Kansas City District, 6/95-12/95, $3,892.


An integrated hillslope and channel evolution model as an investigation and prediction tool: U.S. Army Construction Engineering Research Laboratories, 9/95-8/98, $467,787. (Bras et al.)

Archaeological investigations at State Route 87, Saguaro Lake Road to Gila County Line: Statistical Research, Inc., 3/95-10/95, $1,250.


Surficial geologic mapping of Republic County, Kansas: Kansas Geological Survey, 5/93-8/95, $12,000.

Sand Prairies geoarchaeological survey, central and southwestern Kansas: Kansas State Historical Society, 6/92-6/93, $79,964. (Logan and Johnson)

Paleoenvironmental overview of the Central Plains: U.S. Army Corps, 1/92-12/94, $65,000. (Hofman et al.)


Investigation of Anasazi/Cohonina cultigen use at AZI:2:11 near Cameron, Arizona: Arizona Department of Transportation and Statistical Research (Tucson), 11/91-3/92, $4,400.

Pre-1991

Documentation of cultigen use via pollen and opal phytolith analysis of prehistoric fields, Roosevelt Reservoir Rural Sites Study (AZ): Bureau of Reclamation, 8/90-8/91, $21,000.

Surficial geologic mapping of Finney County, Kansas: Kansas Geological Survey, 5/90, $9,500.

Stratigraphy and Quaternary geology of Phillips County, Kansas: Kansas Geological Survey, 5/89, $7,000.

Age and extent of the shallow confining silt layer in the Great Bend Prairie: Kansas Groundwater Management District 5, 5/89, $2,450.

Impact of increasing groundwater withdrawal on riparian vegetation and stream channel morphology: Arkansas and Cimarron Rivers, Kansas: Kansas Fish and Game Commission, 10/85-7/86, $13,700.

Geomorphology and paleoecology of Eglin Air Force Base, Florida: New World Research, Inc. (National Park Service Award), 1/82-1/86, $40,000.

Abandoned Mined Lands Inventory Prototype Study: Office of Surface Mining, 1/80, $91,000. (Mandel et al.)

Books and Book Chapters


Articles

2001 to Present


Hanson, P.R., Johnson, W.C., Joeckel, R.M., and Arbogast, A.F., n.d., Megadroughts and late Holocene dune activation at the eastern margin of the Great Plains, north-central Kansas: Aeolian Research. (in review)


Wu, S., Zhou, S., Li, X., Johnson, W.C., and Zhang, H., n.d., Heavy metal accumulation trends in Yixing, China—an area of rapid economic development: Environmental Geology. (in review)


Mason, J.A., Miao, X-D., Hanson, P.R., Johnson, W.C., Jacobs, P.M., Goble, R.J., 2008, Loess record of the Last Glacial-Interglacial transition on the northern and central Great Plains: Quaternary Science Reviews 27: 1772-1783.


1996-2000


1991-1995


Arbogast, A.F. and Johnson, W.C., 1994, Climatic Implications of the Late Quaternary Alluvial Record of a Small Drainage Basin in the Central Great Plains, USA: *Quaternary Research* 41: 298-305.


Pre-1991


Johnson, W.C., 1983, The Physical Setting: Northern Belize and Pulltrouser Swamp (Chap. 2) and Further Comments on Soils and Raised Fields (Chap. 5): in B.L. Turner and P.D. Harrison (eds.) *Pulltrouser Swamp: Ancient Maya Habitat, Agriculture, and Settlement in Northern Belize*, University of Texas Press, pp. 8-20, 91-93 (Chap. 2 and 5, resp.).


Johnson, W.C., Dean, T., and Cantwell, H., 1980, The Impact of Agricultural Settlement on Canadian Sandy Creek, Oklahoma: *Proceedings, Oklahoma Academy of Science* 60: 82-88.


**Geologic Maps**


Reports of Investigation

2006-2008


2001-2005


1996-2000


1991-1995


Johnson, W.C., 1992, Geomorphology (Chap. 5): in Phase 3 Mitigation Data Recovery at the F.M. Hall Site, 9EB44, a Multi-Component Site in Elbert County, Georgia, J. Meyer et al. (eds.), New World Research Report of Investigations No. 199.


1986-1990


Johnson, W.C., 1990, Field Methods and Results (Chap.4): in Data Recovery at 16VN791: a Multi-Component Prehistoric Site in the Birds Creek Drainage, Fort Polk Military Reservation, Fort Polk, Louisiana, L.J. Campbell et al.(eds.), New World Research Report of Investigations No. 188.

Johnson, W.C., 1990, Geomorphology of the Perry Lake Project Area and Site Description: in Archaeological Investigations in the Ferry Lake Project Area, Northeastern Kansas - National Register Evaluation of 17 Sites, B. Logan (ed.), U.S. Army Corps of Engineers (Kansas City District).

Johnson, W.C., 1989, Stratigraphy and Late-Quaternary Landscape Evolution: in *Archaeological Investigations at the North Cove Site, Harlan County Lake, Harlan County, Nebraska*, M.J. Adair, (ed.), U.S. Army Corps of Engineers (Kansas City District).


Pre-1986


Crowley, J.F., and Johnson, W.C., 1978, Land Management Transfer Assessment: Public Lands on the Little River and Hog Creek Arms of Lake Thunderbird-Norman, Oklahoma: Oklahoma Department of Tourism and Recreation and Bureau of Reclamation.


**Contributed Abstracts**

Johnson, W.C., 1998, Evidence for dramatic environmental change derived from the late Pleistocene-early Holocene Brady soil of the central Great Plains: American Quaternary Association, Program and Abstracts, 15th Biennial Meeting, Puerto Vallarta, p. 120.


Reviews

Playa: Encyclopedia of Geography, Sage Publishing (accepted)


W.C. Johnson - 14

Paper and Poster Presentations
(int'l, nat'l, reg. meetings; all abstracts published)

2009

Halfen, A.F., and Johnson, W.C., Luminescence dating of high terrace complexes in western Kansas and evidence for major hydrologic change at the end of the Pleistocene: Geological Society of America, Portland (OR), October 2009.
Johnson, W.C., and Hanson, P.F., Early-to late-Holocene dune activation in east-central Kansas, central Great Plains, and climatic implications: Geological Society of America, Portland (OR), October 2009.

2008

Hanson, P.R., Joeckel, R.M., Johnson, W.C., Young, A., and Arbogast, A.F., Dune activation in the eastern Great Plains of Nebraska and Kansas: Geological Society of America, Houston, October 2008.
Johnson, W.C., Mason, J.A., Miao, X-D., Hanson, P.R., Jacobs, P.M., and Goble, R.J., Loess chrono- and chemostratigraphy of the last glacial-interglacial transition on the central and northern Great Plains, USA: American Quaternary Association, Pennsylvania State University, June 2008.

2007


Johnson, W.C., Stable isotope reconstruction of Quaternary climates recorded within sedimentary sequences of the Central Great Plains: American Chemical Society, Boston, August 2007.


Johnson, W.C., Dort, W., Jr., and Bozarth, S.R., Holocene Bignell Loess chronology, stratigraphy and paleoenvironmental reconstructions from within a loess table, Southwestern Nebraska: Geological Society of America North-Central/South-Central Meeting, Lawrence, KS, April 2007.


2006


2005

Johnson, W.C., and Woodburn, T.L., Late Pleistocene to early Holocene climatic change recorded in fill of a dissolution collapse feature within the central Great Plains: Geological Society of America, Salt Lake City, October 2005.


Johnson, W.C., Temporal and spatial isotopic patterns in modern soils and buried paleosols of the central Great Plains and hemispheric-scale linkages: Geological Society of America—North-Central Section, Minneapolis, May 2005.

Johnson, W.C., Isotopic signals in soils on the Konza LTER site: Annual Konza LTER Workshop, Manhattan (KS), March 2005.

2004


2003


2002

Johnson, W.C., and Campbell, J.S., Distribution and prehistory of playa basins in Kansas: Kansas Playa Study Workshop, NRCS, Salina, 12/02.


2001


2000


1999


Modeling the potential for buried prehistoric archaeological remains on the Fort Riley military installation, Kansas:North-Central Section meeting, Geological Society of America, Champaign, April, 1999.

1998

Late-Pleistocene-Early Holocene climatic change on the central Great Plains: Great Plains/Rocky Mountain Division meeting, Association of American Geographers, Lawrence, September, 1998.

Derivation of late-Quaternary climatic records from loess deposits of the central Great Plains using magnetic, isotopic and other parameters: Dust Aerosols, Loess Soils and Global Change, October, 1998.


Holocene climatic records extracted from eolian deposits of the central Great Plains: Geological Society of America, Toronto, October, 1998. (K.L. Willey and W.C. Johnson)


Evidence for dramatic environmental change derived from the Late Pleistocene-Early Holocene Brady soil of the central Great Plains: American Quaternary Association, Puerto Vallarta (Mexico), September, 1998.

Reconstructing landscape change in the context of cultural resources: MIT Department of Environmental and Civil Engineering, July, 1998.

1997


Rock magnetics as a tool for environmental reconstruction: examples from the Great Plains: Great Plains/Rocky Mountains Division meeting, Association of American Geographers, Bozeman, September, 1997.

Late-Quaternary environments and archaeological geology of the loess-mantled terrain in northeastern Kansas: Geological Society of America, Salt Lake City, October, 1997.


Investigation of late-Quaternary faulting at the Bone Cove site, south-central Nebraska: Association of American Geographers, Fort Worth, April, 1997.
1996


Carbon isotope data ($\delta^{13}$C) as a proxy of late-Quaternary climates: Institute for Tertiary-Quaternary Studies Symposium, Lawrence, February-March, 1996.

The magnetic signal in soils: Kansas Association of Professional Soil Classifiers, Lawrence, Feb., 1996.

1995


Lithostratigraphy, chronostratigraphy, and environmental reconstructions of the middle and late Wisconsinan loess deposits in Kansas and adjacent Nebraska: North-Central meeting, Geological Society of America, Lincoln, April, 1995.

Regional variations of rock magnetic parameters in the loess deposits of the central Great Plains: North-Central meeting, Geological Society of America, Lincoln, April, 1995. (K. Park, W.C. Johnson, and M.R. Farr)


1994


1993


Chronology, Stratigraphy, and Paleoenvironment of the Late Wisconsin (Peoria) loess of Kansas and Nebraska: Geological Society of America, Boston, October, 1993. (W.C. Johnson, K. Park, E. Diekmeyer, and D.R. Muhs)


1992

Radiocarbon Dating of Buried Soils-Humate Fractionation, $\delta^{13}$C Correction and Paleoclimatic Signals: Geoarchaeological Implications in the Central Great Plains: Geological Society of America, Cincinnati, October, 1992. (W.C. Johnson and C.W. Martin)

Some Geomorphic and Palynologic Approaches to Deciphering the Pre-Columbian Cultural Environment: keynote address at the International Geographical Congress, Washington, August, 1992.

Global Climatic Signal of Loess Deposition from Kansas: national meeting of the American Geophysical Union, 1992. (Z-D. Feng, W.C. Johnson, and D.R. Sprowl)


1991

Sources of Variation in $^{14}$C-age Determinations from Soil Humates and Archaeological Implications: Examples from the Kansas River Basin: Plains Anthropological Conference, Lawrence, November, 1991. (W.C. Johnson and C.W. Martin)


Loess Depositional History and the Climatic Implications During the Last 400,000 years in Central Kansas: Institute for Tertiary and Quaternary Studies, Lawrence, February-March, 1991. (Z-D. Feng and W.C. Johnson)


1990


The Chronology of Loess Deposition in Central Kansas: Geological Society of America, Dallas, October, 1990. (Z-D. Feng, W.C. Johnson, and D.R. Sprowl)


1985-1989


Holocene Alluvial History of Lukachukai Creek and Prehistoric Cultural Associations: Geological Society of America, St. Louis, November, 1989. (W.C. Johnson and C.W. Martin)


Late-Quaternary Geomorphic History and Environments of the Kansas River Drainage, Central Plains: special session (organizer), Association of American Geographers, Baltimore, March, 1989.


Correlation of Late Quaternary Eolian Deposits with Cheyenne Bottoms Stratigraphy, Central Kansas: North Central meeting, Geological Society of America, Lawrence, March, 1988. (G.G. Fredlund, W.C. Johnson, and T.J. McClain)


Post Glacial History of the Kansas River System: Kansas Academy of Science, Emporia, April, 1986. (W.C. Johnson and W. Dort, Jr.)


Revision of Terrace Chronologies Along the Kansas River and Tributaries: Institute for Tertiary and Quaternary Studies, Lawrence, October, 1985.

Late Wisconsin Full-Glacial Vegetation Record from South-Central Kansas: Institute for Tertiary and Quaternary Studies, Lawrence, October, 1985. (P.J. Jaumann, W.C. Johnson, and G.G. Fredlund)

Palynological Evidence for Late Pleistocene Vegetation from Sanders' Well Locality in East-Central Kansas: Institute for Tertiary and Quaternary Studies, Lawrence, October, 1985. (G.G. Fredlund and W.C. Johnson)


Evidence for an Open Conifer woodland in the Central Great Plains During the Late Wisconsinan Glacial Maximum: Canadian Quaternary Association, Lethbridge (Alberta), August, 1985. (W. Dort, Jr., W.C. Johnson, G.G. Fredlund, R.A. Rogers, L.D. Martin, J.D. Stewart, and P.F. Wells)


1980-1984


A Preliminary Analysis of Pollen and Phytoliths from the Eustis Pit, Frontier County, Nebraska: Institute for Tertiary and Quaternary Studies, Lincoln, October, 1983. (G. Fredlund, W.C. Johnson, and W. Dort, Jr.)


Diversity of Channel Patterns, Kansas River: Geological Society of America - North Central Section, Ames, April, 1981. (W. Dort, Jr. and W.C. Johnson)

Geomorphic and Archaeologic Evidence of Late Holocene Stream System Change in the Central Plains: Association of American Geographers, Los Angeles, April, 1981.


Pre-1980


Holocene-Age Paleosols Within Valley Alluvium of Southwestern Wisconsin: Association of American Geographers, Salt Lake City, April, 1977.

Stream Channel and Flood plain Response to Historical Changes in Land Use: Western Social Science Association, Denver, April, 1977.


Quantitative Discrimination among Hummocky Stagnation Moraine, End Moraine, and Ground Moraine: the Sixth Annual Meeting, North-Central Section, Geological Society of America, DeKalb (IL), May, 1972. (J.L. Hesler and W.C. Johnson)

Educational Materials


Invited Colloquia

Arizona State University (Geography), Kansas City Archaeological Society, Kansas State University (Geography; Biological Sciences), University of Kansas (Geology, Anthropology), Northern Illinois University (Geography), University of Oklahoma, University of Missouri (Geosciences), Kansas Geological Survey, University of Arkansas (Environmental Dynamics), Oklahoma State University (Geography)

Continuing Education

SEPM Short Course Number 15: Recognizing continental trace fossils in outcrop and core: Geological Society of America Short Course, Lawrence, KS, 4/07.
Abrupt Climate Changes, Geological Society of America Short Course, Denver, 10/02
Recent Archeological Prospection Advances for Non-destructive Investigations in the 21st Century: National Park Service workshop, Vancouver, WA, 5/02
KUCR-NSF State EPSCoR Funding Forum, The University of Kansas, 2/01
Regional Grants Conference: NSF, The University of Kansas, 10/98
Geomorphic Application of In-Situ Produced Cosmogenic Isotopes, Geological Society of America Short Course, New Orleans, 11/95
International Quaternary Association Paleopedology Symposium: University of Illinois, 8/93
Paleosol Short course: Department of Geology, The University of Kansas, 3/92
Paleoenvironmental Interpretation of Paleosols: Geological Society of America Penrose Conference, University of Oregon, 9/87
Short course on Fungal Palynomorphs: American Association of Stratigraphic Palynologists, Louisiana State University, 10/81
Laboratory of Tree-Ring Research Workshop: University of Arizona, 4/79
Third Inter-Agency Sedimentation Conference: Denver, 3/76

Service Activities

Profession

Panel member, USGS, EDMAP Program 2006-2010
Newsletter editor and web page manager, Geological Society of America-Quaternary Geology and Geomorphology Division 1998-2004
Councillor, American Quaternary Association 1998-2002
Panel member, NSF, Anthropology Program (MRI) 1998-1999
Chair and Vice Chair, AAG, Rocky Mountain-Great Plains Region 1996-1998
Secretary/Treasurer and web page manager, Geological Society of America-Archaeological Geology Division 1995-1998, 1999-2002
Geological Society of America Archaeological Geology Division Awards Committee (chair) 1992-1994
Kansas Geological Survey Committee on Stratigraphic Names 1992-present
Editorial Board for Current Research - Kansas Geological Survey 1992-present
Association of American Geographers Geomorphology Specialty Group (Chair) 1992-1993
Geological Society of America Archaeological Geology Division Awards Committee 1991-1993
Nomination Committee for R. Rapp Award, Geological Society of America 1991-1993
NSF, Geography and Regional Science Program 1988-1993
Organizer, leader, and/or co-leader for field trips for NSF, Friends of the Pleistocene, Association of American Geographers, Geological Society of American, American Quaternary Association, and International Quaternary Association 1986-present
Organizer, chair and co-chair of several special/topical sessions at national meetings (Geological Society of America and the Association of American Geographers) 1984-present

Department

Undergraduate Advisor (current)
Honors Coordinator (current)
Study Abroad Advisor (current)
Associate Chair
Faculty Affairs Committee (chair and member)
Faculty Search Committees (chair and member)
Geography 104 & 105 (coordination, management, teaching materials production, and supervision of GTAs)
Student Affairs Committee (chair and member)

College
Disciplinary Board (current)
Promotion and Tenure Review Committee (current)
Chair Review Committees
Sabbatical Leaves Committee (chair and member; two terms)
Graduate Research Fund (member and departmental representative)
Faculty Search Committees (Anthropology, Museum of Anthropology, Geology)

University
School of Education Reaccredidation Committee (member)
Staff Search Committees—Kansas Geological Survey (4)
Environmental Studies Advisory Board
Summer Orientation Advisement

Awards and Recognition

Bryon A. Alexander Graduate Mentor Award 2008
Fellow, Geological Society of America 2003
Big 12 Faculty Fellowship 2002
Institute for Rock Magnetism Fellowship NSF/University of Minnesota 2000, 2002
Intra-University Visiting Professorship 1987-88
Tinker Foundation Research Fellowship 1981
Junior Faculty Summer Research Fellowship (U Oklahoma) 1977
NDEA IV Fellowship (U Wisconsin) 1971-72

Professional Affiliations

American Chemical Society (Geochemistry Group) Geological Society of America (Archaeological Geology Division)
American Geophysical Union (Quaternary Geology and Geomorphology Division)
American Quaternary Association Plains Anthropological Society
Kansas Soil Classifiers Association Society for American Archaeology
Association of American Geographers

Graduate Mentorship

Ph.D.

Halfen, A. (in progress)
Woodburn, T.L. (in progress)
Bowen, M., 2010 (in progress) Surface- and groundwater hydrology, stratigraphy and soil variability within playas of the High Plains of Kansas
Park, K., 1997
Reconstruction of late-Quaternary climates for the central Great Plains using magnetic and non-magnetic parameters

Bozarth, S.R., 1996
Pollen and opal phytolith evidence of prehistoric agriculture and wild plant utilization in the Lower Verde River Valley, Arizona

Arbogast, A.F., 1995
Paleoenvironments and desertification on the Great Bend Sand Prairie in Kansas

Feng, Z.D., 1991
Temporal and spatial variations in the loess depositional environment of the central Kansas during the past 400,000 years

Martin, C.W., 1990
Late Quaternary landform evolution in the Republican River basin, Nebraska

Plumb, G.A., 1987
An algorithmic approach to automated vegetation mapping of Big Bend National Park, Texas

Graduate Committee Member for 33 others

M.A.

Baily, D., 2009 (in progress)
Non-thesis track/two research papers

Messinger, L.G., 2008 (in progress)
Evolution of sand dunes along the Cimarron River Valley, Morton County, Kansas

Woodburn, T.L., 2008
Response of the Wakarusa River channel to historic changes in land use and climate

Jackson, T., 2007
Developing a Dataset for Simulating Urban Climate Impacts on a Global Scale

Campbell, J.S. 2006
GIS-based predictive modeling of archaeological material locations in 2-D and 3-D space

Varner, A.R., 2005
Soil signatures of the Santa Fe Trail in Douglas County and Morton County, Kansas

Sterling, J.L., 1996
Non-thesis track/two research papers

Diekmeyer, E.C., 1995
Characterizations and paleoclimatic inferences from the post-Illinoian stratigraphic sequences at two central Great Plains sites

Kerr, M.M., 1994
Non-thesis track/two research papers

Arbogast, A.F., 1991
Late Quaternary evolution of a small basin in the Kansas River system: Wolf Creek

Jaumann, P.J., 1991
Evidence for Late Quaternary boreal environments in the Arkansas River valley, south-central Kansas: theoretical aspects of paleoecology and climatic inferences

Hale, J.M., 1989
Non-thesis track/two research papers

Martin, C.W., 1985
Historic channel change in Medicine Lodge River Basin, Kansas, 1871-1983

Sankey, R.T., 1985
Islands on the Prairie: the flora and avifauna of shelterbelts in Stafford County, Kansas

Winter, M.H., 1984
Altitudinal fluctuations of upper treeline at two sites in the Lemhi Range, Idaho

Hall, B.M., 1984
Non-thesis track/two research papers

Graduate Committee Member for 47 others

05/26/09
Xingong Li

Department of Geography
University of Kansas  phone: (785) 864-5545
1475 Jayhawk Blvd  fax: (785) 864-5378
Lawrence, KS 66045 USA  E-Mail: lixi@ku.edu

Education

Ph.D.  Geography, University of South Carolina, 2000
M.S.  Geography, Nanjing University (China), 1992
B.S.  Geology, Nanjing University (China), 1989

Academic Appointments

Assistant Professor  Department of Geography, University of Kansas, 2003-present.
Assistant Professor  Dept. of Geography & Planning, Appalachian State University, 2000-2002.
Research Scientist  State Key Laboratory of Resources and Environment Information System, Chinese Academy of Sciences, 1992-1996.

Refereed Publications


Other Publications


Manuscripts under Review
Scholarly Presentations


Li, X., (invited) Snow-/glacier-melt water in southern Xinjiang, China, *Conference of the opening of western China: problems and prospects*, University of Kansas, Lawrence, April, 2009.


Li, X., Viewshed Characterization for Wind Farm Siting in Western North Carolina, 

Li, X., Integrating Analytic Hierarchy Process with GIS through the COM technology, 

Li, X., Data model and operations for vector fields, The First International Conference on 

Hodgson, M. and X. Li, Shortest path considering the direction of movement, ASPRS 

Hodgson, M. and X. Li, Sensitivity analysis on feature extraction algorithm, ASPRS 
Annual Meeting, Tampa, April, 1998.

Carbone, G., R. Lloyd, R. Bunch, and Li, X., Comparison of different interpolation 
techniques with monthly precipitation data, AAG Annual Conference, Boston, March, 
1998.

Li, X., Digital road map for vehicle navigation, International Symposium of 
Geoinformatics’95 Hong Kong: RS, GIS and GPS in sustainable development and 
environmental monitoring, Hong Kong, May, 1995.

Research Grants

Sea level rise effects on coastal ecosystem distributions and biodiversity status in the U.S. 
Middle Atlantic region, PI, DoE, $125,000, 04/01/09 – 8/31/10.

Geographic and cartographic assistance to the Geneva International Centre for Humanitarian 
Demining, co-PI, Geneva International Centre for Humanitarian Demining, $80,000, 
3/15/09-12/31/09.

IGERT: C-CHANGE: Climate Change, Humans, and Nature in the Global 

Snowmelt runoff modeling in the Sierra-Nevada watersheds, PI, University of 
Kansas Faculty General Research Fund, $7409, 07/01/2008—06/30/2009.

Developing NEXRAD-based precipitation datasets for the Cheney Lake watershed 
for use in water quality models, PI, USDA, $19,685, 05/01/2007 – 01/31/2008.
NSF Science and Technology Center: Center for Remote Sensing of Ice Sheets, **Participating Faculty**, NSF, $19,000,000, 08/01/2005--07/31/2010.

Conservation Evaluation and Assessment Project for the Cheney Reservoir Watershed, **PI**, USDA, $18,000, 09/01/2005 – 05/31/2006.

Understanding snow and glacier runoff processes in an arid mountain watershed, **PI**, University of Kansas Faculty General Research Fund, $4,438, 07/01/2005–06/30/2006.


Multi-resolution representation and analysis of vector GIS data, **PI**, University of Kansas New Faculty General Research Fund, $7,964, 07/01/2003 – 06/30/2004.

**Honors and Awards**

University of Kansas Big 12 Faculty Fellowship, 2009
University of Kansas Big 12 Faculty Fellowship, 2007
University of Kansas Team Award, 2003-2004

**Teaching Experience**

2003-present  **Department of Geography, University of Kansas**
  Principles of Geographic Information Systems (GIS): introductory GIS
  Intermediate GIS: upper division/graduate GIS
  GIS Application Programming: upper division/graduate GIS
  Geographic Information Science: upper division/graduate GIS
  Seminar in GIS: graduate seminar in GIS

2000-2002  **Department of Geography & Planning, Appalachian State University**
  Physical Geography: introductory physical geography
  Introduction to GIS: introductory GIS
  Advanced GIS: upper division/graduate GIS
  GIS Application Programming: upper division/graduate GIS
  Remote Sensing Digital Image Processing: upper division/graduate remote sensing
Graduate Committees

Committees Chaired

Keith French (M.S. geography)
Tom Overly (M.S. geography)
Justin Penka (M.S. geography)
Tingting Xu (M.S. geography, defended thesis in September 2009)
Matt Harman (M.S. geography, graduated in May 2005)

Committee Member

Iwake Masialleti (Ph.D. geography)
Joshua S. Campbell (Ph.D. geography)
Willy Rittase (Ph.D. geology)
Corinne Emanuelle (Ph.D. geology)
Bastian Bentlage (Ph.D. EEB)
Sarah Bodbyl (Ph.D. EEB)
David McLeod (Ph.D. EEB)
Jeet Sukumaran (Ph.D. EEB)
Arpi S. Nyari (Ph.D. EEB)
Justin Busboom (M.S. geography)
Amber Reynolds (M.S. geography),
Andrew Gottsfield (M.S. anthropology)
Rohith Kumar Gali (M.S. Biological and Agricultural Engineering, KSU)
Matt Dunbar (Ph.D. geography, graduated in August 2009)
Yoshi Nakazawa (Ph.D. geography, graduated in August 2009)
Monica Papes (Ph.D. EEB, graduated in May 2009)
Simeon Rabbani (M.S. geography, graduated in May 2007)
Matt Dunbar (M.S. geography, graduated in May 2006)
Joshua Campbell (M.S. geography, graduated in May 2006)
Monica Papes (M.S. EEB, graduated in May 2006)
Rex Rowley (M.S. geography, graduated in May 2005)
Patrick Taylor (M.S. geography, graduated in May 2005)

Service

Department and University Service

Department Curriculum Committee, 2008-present
Department Internship Coordinator, 2006-present
University Graduate Council, 2006-present
Department Faculty Search Committee, 2007-2008
University Campus GIS Server Committee, 2007-2008
Department Faculty Affairs Committee, 2006-2008
Department GIS Day Event Committee, 2003-2009
University Standing Committee on Scholarship and Fellowship, 2006-2007
Department Undergraduate Studies Committee, 2005-2006
Department KU Edwards GIS degree-completion program Committee, 2004-2005
University Chinese Student Association Faculty Advisor, 2004-2005
Department Graduate Studies Committee, 2003-2005,
Department Instructional Technology Funds Committee, 2003-2005
Department Geography-Urban Planning Joint MA Degree Committee, 2003

National Service
Session Chair of AAG annual conference, 2008
Member of the Advisory Council of the Department of Geography, Northwest Missouri State University, 2006-2007.
GIS course evaluation for the Geosciences and Urban Planning departments at the University of Missouri, Kansas City, 2008
Session Chair of ASPRS annual meeting, 2004
KU delegate to the University Consortium for Geographic Information Science (UCGIS), 2003-2005

Journal and Grant Reviewer

Professional Affiliations
Association of American Geographers (AAG)
American Society for Photogrammetric Engineering and Remote Sensing (ASPRS)
George F. McCleary, Jr.

I’m a cartographer …

It’s that simple. I work with maps and, in particular, with students who are working with maps. One of my students, having earned his credentials (a doctorate) has pointed out to his classes (in his syllabus) that it is amazing that he … we .. actually get paid while we’re having so much fun. It is a lot of fun, most of the time.

Had Stephen B. Jones, Herold J. Wiens, and Robert L. Williams … key components of the Department of Geography … told me that it would be like it has been, I probably at the time would have considered them … well, daffy! … or worse. Those three, along with James M. Blaut, initiated me to the wonderful things that you can learn by studying geography. It’s really more than memorizing the states and their capitals … there are countries, and they have capitals!

Jones, Wiens, and Williams nurtured what would become my always absorbing and continuously growing passion: maps. Other faculty provided context (including Scully and Flint), but it was the introduction to map use, surveying, and map design that set the stage for the next half century. Blaut contributed not only with his contrary conceptual and philosophical perspectives about the discipline but also with his encouragement to emphasize on my Navy active duty assignment request that newly commissioned Ensigns could do other things than serve aboard ships.

The two years at the U. S. Antarctic Projects Office (as Public Information Officer) were two more years of education … particularly since my two “bosses” had doctorates, one from Penn in English Literature and the other from Yale in History. They and an Army Warrant Officer (GED), who was probably the most influential resource of the trio, taught me how to do research, to organize, and to write.

An NDEA Fellowship in Cartography at Wisconsin made it possible to study across the many aspects of geography and into adjacent disciplines (such as planning). The central component was cartography, working with the man, Arthur H. Robinson, who wrote THE textbook. For five years, there was at least one new idea every week.

Teaching at Clark University provided the opportunity to continue my education … a small school, with mostly undergraduate programs, Clark has graduate programs in psychology and geography. There was continuous interaction between the geographers and the psychologists, classes and seminars and research, even conversations and interdisciplinary dissertations. Whatever you called this collaboration, environmental psychology or environmental perception or psychogeography, it became clear that cartography is not just making maps, not just communicating information about the environment … it is actually a behavioral science. The real concern is the individual person’s “mental map” (more formally, “cognitive map”) and the collective perspective of a community or a culture about the environment. If Clark was psychology-intensive, then Kansas for the last thirty-five years has provided diversity in my continuing education: history, history of art, graphic and industrial design (including human factors), psychology, and more.

Within the Geography Department, there have been colleagues with diverse interests and great expertise: A. W. Küchler in vegetation mapping, T. R. Smith in the history of cartography, R. E. Nunley in analog systems and geodemographics, and, above all, George F. Jenks in data analysis and presentation, as well as map design and production … George was several decades ahead of everyone else in his work on “scientific visualization.” We shared the technological transition
from manual-based photo-mechanical map design and production to digital (computer-based) processes with Darin Grauberger who really knows how to make maps. Most of my interdisciplinary work was with Richard Branham (Department of Design) ... the concepts and processes of human factors take the cartographer far beyond the communication systems model.

The technological transition, from pen, ink, and paper to the computer (hardware, software, and printer) has made some things in the life of the cartographer easier, some more difficult, and some revolutionary. If psychology was the catalyst for the re-orientation of my perspective with respect to map use (and the recognition of the personal and societal impact of mapped information), then the impact of the computer on cartographic concepts and processes has, on the one hand, expanded the personal and societal perspective with regard to maps and, on the other, evoked a significant amount of confusion and generated a serious decline in quality. Too many types of maps that were user-unfriendly before the computer have become even more difficult to use ... altogether too often it has been forgotten that there is the need for the map user to understand the computer interface as well as to decode the image that is displayed. On the other hand, the flexibility provided to the mapmaker by computer-supported mapping systems has promoted experimentation and innovation, both conceptually and operationally.

There is always excitement in cartography. It may be the discovery of a really great map ... an archetype. This may be a sketch map of a camp site by a ten-year-old Cub Scout, or the result of a restructuring of an student’s personal world view (a class assignment, to relearn the world map ... insert the illustration here!). There has been the realization by a doctoral student that the rejection of all of the research hypotheses is a very important finding. Then there is the production of several dozen maps for a book about the Second World War ... or the map of the historic housing district, now on the rack at the tourist center.

Instruction, research, and production merge ... and maps produced for a book raise questions that can be answered only by a research project, and the same mapping problem becomes a class assignment. Maps are not inanimate objects ... they reflect a complex array of interfaces ... between persons, cultures, abilities, expectations, behaviors, and traditions. They are really interpretations, not just representations, of the environment, and their goodness (rectitude) can only be determined by how well they did their job.

It is the creation, the design, of maps that provides the most interesting challenges: how well will the map user understand the map and the alliance of its message with the environment ... will the map help generate the appropriate solution to the environmental situation that it was created to explain? Is it possible, for example, to make maps illustrating genocide that lack propagandistic overtones but engage the user/reader in the emotional nature of this activity?

I'm still learning ... for the most part a lot more from my students than I teach them. My focus has changed, and right now there is a lot of work on tourist maps ... more specifically on the geography of wine. The topic of the maps is different, but the catalyst, the conceptual and operational framework, is still that launched at Yale.
George F. McCleary, Jr.

Education

A. B. (cum laude), Yale University, 1959
M. S. (Geography), University of Wisconsin, 1963
Ph. D. (Geography), University of Wisconsin, 1969

Awards

Yale University Library Map Prize, 1959
Antarctica Service Medal, 1965
National Defense Education Act Fellow in Geography-Cartography, University of Wisconsin, September 1961 to June 1964
Dissertation Completion Fellowship, University of Wisconsin, Summer 1967
Award of Merit, Pelathe District, Boy Scouts of America, 1980

Silver Beaver, Heart of America Council, Boy Scouts of America, 1989
Citation from the State Legislature (BBSP)
---with the Map Associates, Honorable Mention for Thematic Mapping, American Congress on Surveying and Mapping, Map Design Competition, for "Tribal Territories on the Great Plains"
Shirt Design Award (Orienteer Kansas)

Positions Held

Cartographer, U. S. Navy Hydrographic Office, Chart Maintenance Branch, June to August 1961
Project Assistant, University of Wisconsin Cartographic Laboratory, June to August 1962
Research Assistant in Geography, University of Wisconsin, July 1964 to August 1965
Assistant, Geography-Geology Library, University of Wisconsin, January 1966 to July 1966
Technical Assistant, State of Wisconsin, Department of Resource Development, June 1964 to August 1966 (part-time)
Assistant Professor of Geography, Clark University, 1966-1972
Instructor, NDEA Summer Institute in Political Geography, Clark University, Summer 1967

Instructor, NSF-AAG Enrichment Program for Geography Students of Selected Small Colleges, Clark University, Summer 1967
Associate Professor of Geography, Clark University, 1972-1974
Instructor, Clark University Evening College, 1971, 1973, and 1974
Instructor, Summer School, Clark University, 1970, 1972, 1973 and 1974
Visiting Associate Professor of Geography, University of Kansas, 1972-1973
Associate Professor of Geography, University of Kansas, 1974-
Adjunct Professor, Union Graduate School, 1976-1977
Visiting Associate Professor, University of Maryland, Summer 1978
Seminar Leader, Harvard University Laboratory for Computer Graphics and Spatial Analysis, 1979
Intra-University Professor, Department of Design, University of Kansas, 1983-1984

Academic Responsibilities

Director, Clark University Cartographic Laboratory, 1966-1974
Cartographic Editor, Economic Geography, 1966-1972
Member, University Data Processing Committee, 1967-1969
Chairman, School of Geography Committee on Space, Facilities and Equipment, 1967-1972
Member, School of Geography Graduate Admissions Committee, 1971-1972 and 1973-1974
Member, University Committee on Equipment Grants, 1968-1971

Member, Faculty Senate Research Committee Subcommittee, 1975
Member, Department of Geography Administrative Committee, 1974-1975
Member, Department of Geography Search Committee, 1974-1975, 1990-1991
Member, Department of Geography Program and Operations Committee, 1975-1976
Member, Department of Geography Curriculum and Academic Planning Committee, 1976-1977, 1991-1992
Member, University Parking and Traffic Court, 1976-1977
Faculty Advisor, Orienteer Kansas, 1977-1984
George F. McCleary, Jr.

Member, Department of Geography Student Affairs Committee, 1977-1982 and 1989-1990; Chairman, 1978-1979
Member, Department of German Review Committee, 1980-1981
Freshman-Sophomore Advisor, College of Liberal Arts and Sciences, 1981-1990
Member, Department of Geography Staff Committee, 1982-1983, 1994-1995
Member, Jenks Scholarship Committee, 1987
Member, Search Committee, University of Kansas Libraries, 1986-1987

Member, Architecture-Design-Cartography Computer Committee, 1987-1990
Marshall for Commencement, 1989-
Member, Department of Geography Curriculum Committee, 1991-1992, 1997-
Member, Department of Geography Grade Appeals Committee, 1993-1994
Member, Commencement (Logistics) Committee, 1990-; Chairman, 1994-
Member, Commencement Traditions Committee, 1994-
Member, Department of Geography Evaluation Procedures Committee, 1994-1995
Member, Convocation Committee, 1996-

Other Professional Activities

Consultant (road map and atlas design), Rand McNally Company, 1969
Consultant (computer mapping), Project IMPRESS, Dartmouth College, 1970
Member, Local Arrangements Committee for the 1971 Annual Meeting, Association of American Geographers, 1970-1971
Member, Committee on Thematic Cartography, American Congress on Surveying and Mapping, 1970-1971
Member, Committee on Translations in Cartography, American Congress on Surveying and Mapping, 1970-1971
Test Examiner (Cartography), New York State Department of Civil Service, 1971, 1976, 1980 and 1984
Member, Editorial Board of Cartographica, 1971-1977
Editorial Consultant (manuscript review), Annals, Association of American Geographers, 1972
Organizer and Leader, SURFACE 0: Meades Ranch, March 1973
Consultant (manuscript review), Prentice-Hall, Inc., 1974 and 1980
Evaluator, Boston University, Department of Geography, 1976
Member, Mapping Committee, U. S. Orienteering Federation, 1977-1979
Organizer (with Howard T. Fisher), Sessions on Cartographic Design at Harvard Computer Graphics Week, 1978
Chairman, Andrew McNally Award Committee of the American Congress on Surveying and Mapping, 1978
Member, 1979-1981 and 1985-1987
Organizer, Sessions on Cartographic Design at Harvard Computer Graphics Week, 1979
Consultant (manuscript review and editing), Methuen, Inc., 1979
Consultant (map design and production), THEnterprises, 1979-1980
Member, National Science Foundation Evaluation Panel, Instructional Scientific Equipment Program, 1980 and 1981; Chairman, 1980
Consultant (manuscript review), Kendall-Hunt Publishing Company, 1981
Editorial Consultant (manuscript review), The Professional Geographer, 1981
Member, Editorial Board, Computer Graphics for Management, 1981-1984
Member, Product Development Board, FINGRAPH, 1982-1983
Organizer (with Maurice T. Wildgen and others), Workshop on Computer-Assisted Cartography at Annual Meeting of the Association of American Geographers (Denver), 1983
Consultant (manuscript review), Charles E. Merrill Publishing Company, 1983
Consultant (publication program), University of Pennsylvania Press, 1984
Organizer (with Robert T. Aangeenbrug), Sessions on the Relationship between Cartography and Computer Graphics at the Meeting of the National Computer Graphics Association, 1984
Consultant, St. Mary's Medical Center, 1984-1985
American Congress on Surveying and Mapping Member-at-Large to the International Geographical Union, 1984-1985
Member, Editorial Board, The American Cartographer, 1984-1987
Member, Board of Directors, National Computer Graphics Association, 1984-1986
Consultant, Kansas City Chiefs Gridiron Geography Program, 1984-
Organizer and Director, The Map Associates, 1985-
Editor, Image Info (Newsletter of the Kansas City Chapter of the National Computer Graphics Association), 1987-1989
George F. McCleary, Jr.

Consultant, Division of the Census, Kansas Secretary of State, 1987-1989
  Member, Advisory Committee, Kansas State Census, 1987-1988
  Member, Editorial Board, Meridian, 1988-1989
  Consultant (manuscript review), Harper and Row, 1990
  Consultant (manuscript review), Childrens Environmental Quarterly, 1989
  Consultant, National Center for Health Statistics, 1991-1992
  Editor, Meridian, 1990-1992
  Consultant (GIS), Office of the Mayor of Kansas City, Missouri, 1992
  Consultant (manuscript review), American Cartographer, 1992

Service Activities

  Member, Worcester 1970 Census Tract Committee, 1966-1970
  Member, Worcester Area Chamber of Commerce Research Committee, 1970-1972
  Member, Worcester Regional Environmental Council, 1972-1973; Board of Directors, 1972-1973
  Roundtable Commissioner (Webelos), Petalthe

Fellowships and Grants

  Research Grant, U. S. Office of Education: Place Perception Project (OEG-0-8-080772-4493-010), 1968-1971 (with James M. Blaut and David Stea, $150,000.00)
  Research Grant, University of Kansas General Research Fund: Maps and Their Users (3848-5038), 1974-1975 ($1350)
  Research Grant, University of Kansas General Research Fund: Asante Mapping (3967-5038), Summer 1975 (with Thomas J. Lewis, $375)
  Research Grant, University of Kansas General Research Fund: The Effects of Color in Quantitative Map Symbol Estimation (3189-X038), 1977-1978 ($2100)
  Research Grant, University of Kansas General Research Fund: The Effects of Color in Quantitative Map Symbol Estimation (3189-0038), ($150)
  Research Grant, University of Kansas General Research Fund: Measurement-Level Association for Texture Patterns in Cartography (3415-X038), 1980-1981 ($4234)
  Innovation in Instruction Grant, University of Kansas: Development of a Laboratory for Microcomputers in Design, 1985-1988 ($15,000, with Richard L. Branham)
  Research Grant, University of Kansas General Research Fund; Texture Patterns for Visual Displays (especially maps) and their "Efficiency" (3154-xv-0038), 1985-1986 ($5776)
  Professional Services Grant, Legislative Coordinating Council of the State of Kansas, Block Boundary Suggestion Project for the 1990 Census (5443-0705), 1985-1989 ($105,000)

District, Boy Scouts of America, 1977-; Day Camp Staff 1983 and 1984; Unit Commissioner, 1983-; Cub Scout Activities Chairman, 1983-; Member, Training Committee (for Webelos), 1980-
  Surveying and Orienteering Merit Badge Counselor, 1990-
  Member, Camp Bromelsick Development Committee, 1985-
  Consultant, Project Prairie Fire, 1985-

  Patterns in Cartography (3415-X038), 1980-1981 ($4234)
  Innovation in Instruction Grant, University of Kansas: Development of a Laboratory for Microcomputers in Design, 1985-1988 ($15,000, with Richard L. Branham)
  Research Grant, University of Kansas General Research Fund; Texture Patterns for Visual Displays (especially maps) and their "Efficiency" (3154-xv-0038), 1985-1986 ($5776)
  Professional Services Grant, Legislative Coordinating Council of the State of Kansas, Block Boundary Suggestion Project for the 1990 Census (5443-0705), 1985-1989 ($105,000)
  Professional Services Grant, Kansas Department of Education, Census Mapping for the Board of Education, 1990-1991 ($18,330) (with supplementary work for individual school districts, totalling about $4000)
  ----- with K. P. Price and others, NSF Equipment Grant: "Enhancing the Analytical and Physical Geography Curriculum at the University of Kansas, 1993 ($90,700)
  Research Grant, University of Kansas General Research Fund: Operational Innovations in Map Design, 1993 ($1482)
Publications: Papers


--- with James M. Blatts and America S. Blatts, "Environmental Mapping in Young Children." Environment and Behavior 3 (1970), 335-349

"Beyond Simple Psychophysics: Approaches to the Understanding of Map Perception." Technical Papers, American Congress on Surveying and Mapping, 1970, 189-209

"A Course for the Forgotten Cartographer." Technical Papers, American Congress on Surveying and Mapping, 1972, 70-74


--- with Nicholas Westbrook, "Recreational and Recreational Mapping." Worcester: Clark University Cartographic Laboratory, 1974. 20 pages


Translation: "Positioning Names on Maps" by Eduard Imhof. The American Cartographer 2 (1975), 128-144


Computer Graphic Design for Effective Communications. National Computer Conference (Houston, 1982). 74 pages


Geography 311: Map Conception and Development. Laboratory Projects and Supplementary Course Materials. 1982, 119 pages


"Dyssmotic Mapping." In Map Making to 1900: An Historical Glossary (International Cartographic Association, in press)


1987, "Discovering Cartography as a Behavioral Science" Journal of Environmental Psychology, 7, 347-355


1989, "Overlooking China: A Perspective from Several Dozen Atlases." Meridian 3, 25-34

1990, "Pursuing the Cheyenne: Mapping Tribes, Trails, the 1857 Expedition and the Battle of Solomon's Fork" Meridian 4, 3-28

1990, with R. L. Branham, "Maps and Spatial Data in the Information Age" Meridian 5, 35-36


"Surveying" in The Academic American Encyclopedia, 1993

Publications: Maps


--- with Craig Davies and Brad C. Raley, "Camp Bromelsick" (1:5000, 1978).

--- with David Linthicum and Robert B. McMaster, "Perry Lake Kansas: Slough Creek Public Use Area" (1:10000, 1979; two-color).

--- with Norman T. Carpenter, "Land Use and Human Occupation" (eight continental maps, various scales, four-color), "Antarctica" (1:40,000,000, two-color), and "The Water Planet" (1:200,000,000, two-color). In Cultural Geography, by David Kromm (Philadelphia: W. B. Saunders Company, 1982).

--- with David Linthicum and others, "Clinton State Park and Camp Bromelsick: An Orienteering Map" (1:10,000, 1982).

--- with Ted Olson, Johnna Jones, Denise Lathrop and others, "Lawrence, Kansas" (1:60,000) and "Downtown Lawrence" (1:7,000), for the Convention and Visitors Bureau of the Lawrence Chamber of Commerce, 1985.


--- with Rodney Odom, monochrome map for the University of Kansas Commencement brochure (Commencement Committee and the Department of Continuing Education), 1993.

Monochrome map, for the International Quaternary Association, "INQUA Paleopedology Field Excursion," 1993


Monochrome map, "The Killing Fields" in U. S. Holocaust Memorial Council, Days of Remembrance Committee, Fifty Years Ago: Revolt Amid the Darkness, 1993

--- with Darin Grauberger and Keith Cunningham, "Taney County (and Branson), Missouri: 911 Map", 1994

--- with the Map Associates, maps and diagrams in Bayonets Before Bullets, by Bruce W. Menning (Indiana University Press, 1992)

--- with Darin Grauberger, 21 maps in When Titans Clash (by David Glantz and Jonathan House, University Press of Kansas, 1995)

"The Sunflower Ordnance Works -- A Wetlands Analysis" (for the Kansas Biological Survey, Kelly Kindscher), 1995

"The Flint Hills" (for Kelly Kindscher, in The Conservation Journal) 1995

--- with Darin Grauberger and Michael Noll, Maps and brief articles in the Holocaust issue of Social Education, 1995

An Orienteering Map for Camp Piercing Arrow (Bartle Scout Reservation), 1995

Orienteering Map -- Hidden Valley Camp, 1995 and 1996

--- with Kelly Babbitt, Lawrence (color) (for the Lawrence Convention and Visitors Bureau Guide), 1995

also, with Darin Grauberger, monochrome, 1995

revised 1996 and 1997

--- with Darin Grauberger, Douglas County (color) (for the Lawrence Convention and Visitors Bureau Guide), 1995

also monochrome, 1995, revised 1996 and 1997

Water in Willow Springs, for Dennis Domer in the Kansas Historical Magazine, 1996

West Campus: An Orienteering Map, 1996

Two maps of Siberia, for Mikkelsen and Winslow (Northwestern University Press), 1996

--- with Peter DeVincentis and Darin Grauberger, Map for the Student Assistance Center (revised and redeveloped, 1997)

--- with Karen Cook, Darin Grauberger and others, Historic Trails of Douglas County, Kansas, brochure for the Lawrence Convention & Visitors Bureau, 1997

--- with Darin Grauberger and others, Quantrill's Raid: The Lawrence Massacre, brochure for the Lawrence Convention & Visitors Bureau, 1997

--- with Darin Grauberger and others, House Styles of Old West Lawrence, brochure for the Lawrence Convention & Visitors Bureau, 1997

Publications: Abstracts


"Psychophysics and Cartography." Technical Papers, American Congress on Surveying and Mapping, Fall 1977, 101

--- with John R. Parsons and Susan P. Waldorf, "Maps for Recreation: User-Related Factors and Their Relationship to Design." Technical Papers, American Congress on Surveying and Mapping, Fall 1977, 97

"The User as the Focus for Cartographic Instruction." Program Abstracts, Association of American Geographers (New Orleans), 1978, 136

"Dissecting the Dot Map: Reader Differentiation of Density Differences." Technical Papers, American Congress on Surveying and Mapping, 1978, 60


George F. McCleary, Jr.

Publications: Reviews

John P. Snyder, Flattening the Earth: Two Thousand Years of Map Projections (1993), Meridian

Professional Papers Presented

"The Indicatrix." Geography 191, University of Wisconsin (A. H. Robinson), February 1965
"Cartography for Planners" (an eight-session seminar) Department of Urban and Regional Planning, University of Wisconsin (March-April 1965)
"Dasymetric Mapping: Concepts and Principles." Department of Geography, Michigan State University, Spring 1966
"Dasymetric Mapping: Methodology for Environmental Research." Department of Geography, Southern Illinois University, Spring 1966
"The Dasymetric Method." University of Wisconsin, Geography 621 (R. Chung), August 1967
"Methods and Materials for Cartography in the Junior High School." Shrewsbury, Massachusetts, Junior High School, September 1971
"Cartography at Clark." Keene State College, New Hampshire, Department of Geography, November 1971
"The Map as a Medium for Communication." U. S. Army Natick Laboratories (Natick, MA, January 1967)

"Communications and Cartography — The Idea, the Map and the Reader." Central Massachusetts Association of Land Surveyors and Civil Engineers (Paxton, MA, May 1971)
"Problems of Reproducing Maps in Libraries: The Reader's Point of View." Special Libraries Association, Geography and Map Division Workshop Panel (Boston, June 1972)
"Cartography at Clark: Instruction and Research and the Library Resources." Special Libraries Association, Geography and Map Division, June 1962
"Tourists and Mental Maps." Know America Project, Clark University (Worcester, July 1974)
"What Cartography is About." Know America Project, Clark University (Meades Ranch, Kansas, August 1974)
"The Personal Side of Mapping." American Congress on Surveying and Mapping, Heart of America Council (Kansas City, October 1975)
"Map: Conception, Process, and Impact." University of Kansas, Geography 106 (V. Tayloe) (November 1974)
"Maps and the Changing Image of the Physical Environment." University of Kansas, Geography 106 (R. E. Nunley) (December 1974)
"Maps for the City and its Citizens." Conference on Urban Mapping (Lawrence, February 1975)
--- with Jane Eldredge, Nancy Hambleton and Richard McClanathan, "Where in the Hell do We Put the City Garage." Conference on Urban Mapping (Lawrence, February 1975)
"Analyzing the Physical Landscape." University of Kansas, Leavenworth, Geography 106 (R. P. Cotti) (April 1975)
"Tourists and their Maps." Know America Project, Clark University (Lawrence, July 1975)
"Mental Maps: A Problem for the Cartographer?" British Cartographic Association (Aberdeen, September 1976)
"Principles and Procedures of Cartographic Psychophysics" and "How Maps are Read: A Status Report." Interdisciplinary Seminar on Cartographic Research, University of Kansas (March 1977)
"Asante Cosmography: A Comparison with the Western World View." University of Kansas, Philosophy 512 (D. Pennington)(April 1976)
"Psychophysics and Cartography" (poster). Association of American Geographers (Salt Lake City, April 1977) and American Congress on Surveying and Mapping (Little Rock, October 1977)
"Dissecting the Dot Map: Reader Differentiation of Density Differences." American Congress on Surveying and Mapping (Washington, February 1978)
"The Map User as the Focus for Cartographic Instruction." Association of American Geographers (New Orleans, April 1978)
"Maps as Process: Concept to Behavior." Special Libraries Association, Geography and Map Division (Lawrence, June 1978)
"TIPS: Teaching Information Processing System." University of Kansas, Seminar on Computer-Assisted Instruction (Lawrence, May 1979)
"Maps, Images, Reality — and Behavior." Ohio University, Department of Geography (Athens, May 1979)
"The New Independence and Dependences of Cartography." Ohio University, Department of Geography, Graduate Seminar (Athens, May 1979)
"Visual Variables: The Key to Effective Cartographic Representation." University of Nebraska, Geography 317 (Lincoln, October 1979)
"Recent Advances in American Cartography." University of Nebraska, Department of Geography Seminar (Lincoln, October 1979)
"Maps in Behavioral Systems." Geography 688, University of Kansas (April 1980)
"Maps and Machines -- Perspectives for the Computer User." St. Mary College (Leavenworth, 1982)
"Images and Artifacts." University of South Carolina, Geography 412, May 1985
"Cartography as A Behavioral Science." Colloquium, Department of Geography, University of South Carolina, May 1985


--with Carol Brown, "I Believe in You" Association of American Geographers, Minneapolis, May 1986

--with Richard Miller, "Political Boundaries, the Census and Problems." Joint Committee on Reapportionment, Kansas Legislature, July 1986

"Human Factors and Cartography" Association of American Geographers, Portland, 1987


"The Multidimensional World of Cartography" Poster, NASA Conference on Spatial Displays and Spatial Instruments, Asilomar, 1987

"Geography, Numbers and Maps" American Statistical Association, New Orleans, 1988

Seminar, Villanova University, 1988


Workshop: Maps as an Integral and Integrating Element in the Curriculum, Kaw Valley In-Service Day, Lawrence 1987

"The Deadly Sins of Cartography and a Map for Salvation" Intergraph Graphic Users Group, Huntsville, May 1990

URISA National Conference Workshop on GIS and Cartographic Design, San Francisco, August 1991 (with S. P. Waldorf and others, 2 days)

May 1992, Cartographic Design, 4 hours at Mid-America GIS meetings, Kansas City

Ling Bian, GEOG 758, "Cartographic Principles and Procedures for GIS," April 1993


Robert Nunley, GEOG 102, "Map Basics," March 1994

UBPL 502/802 (Donna Luckey), Summer 1992

"Fundamental Concepts Underlying the Graphic Structure of Maps" (Department of Geography, Southwest Texas State University, March 1994)

"Fundamentals of Design for Urban (Large-Scale) Resource Maps" (Department of Geography, Portland State University, 1994)

Workshop, Mid-American GIS Conference (Kansas City, April 1994) (with Bob Shultz and Dennis Fitzsimons) (4 hours)

Workshop, GISLIS 1994 (Phoenix, 1994) -- with Dennis Fitzsimons (8 hours)

NACIS, Cartographic Conversations, San Antonio, 1996, with Dennis Fitzsimons

Kansas Association of Mappers, Manhattan, 1996

Short seminar on design

Kansas Association of Mappers, Lawrence, 1997, Short seminar on Projections and Coordinate Systems

Kansas Association of Mappers, Lawrence, 1997, with others, Maps, Mapping and Cartography at the University of Kansas

Fort Worth AAG, 1997, "Recreational and Recreational Mapping: Quantrill in Lawrence, August 1863"

Public Service Presentations

"Science in Antarctica." Parent-Teachers Association, District Heights, Maryland, March 1960

"The Navy and Science in Antarctica." Naval Reserve Unit, Bethesda, MD, January 1961


"The Role of the Navy in Antarctica." Naval Reserve Unit CCS-59, Alexandria, VA, May 1961


"People and Antarctica." Fourth Grade, Sherman School, Madison, WI, December 1963

"Maps and Landscapes." Manchester, Connecticut, High School Earth Science classes, November 1965

"Thematic Mapping: Tools and Products." Worcester, Massachusetts, South High School, Drafting Department, October 1971

"Environment and the Eye of the Beholder." Earth Sciences Program, Marion High School, Worcester, Massachusetts, March 1972


"The Map Maker and the Mapping Problem." Broken Arrow School, Fifth and Sixth Grades, Lawrence, Kansas, April 1973

"Maps and History: Fact and Fiction." Shrewsbury, MA, Junior High School, March 1974

"Making Maps" and "Surveying." Fourth Grade, Sunset Hill School (Lawrence, October 1974)

"Making and Using Maps." Broken Arrow School, Fifth Grade, Lawrence, KS (May 1975)

"Studying the Earth." Sunset Hill School, Fourth Grade, Lawrence, KS, (November 1975)

---- with Rick L. Dulas and Jill Marino, "How Maps are Made." Broken Arrow School, Fourth Grade (Lawrence, December 1976)

"Looking at the World." Broken Arrow School, Fifth Grade (May 1977)

"What is the Real United States?" Broken Arrow School, Fifth Grade (Lawrence, May 1977)

"Reality and its Maps -- Purpose and Perspective." West Junior High School, Seventh Grade Social Studies (Lawrence, October 1979)

"Maps and Environment." Cordley School, Sixth Grade (May, 1981)

---- with Jill Holley and others, 'The Cartographic Process: Conventional and Automated." Workshop,
George F. McCleary, Jr.

Sunset Hill School, Fourth Grade Gifted Program (April-October 1982)
"Making Maps -- a Workshop." Woodlawn School, Sixth Grade (May, 1984).
"Map Resources for the Classroom" Kansas City Chiefs Gridiron Geography Program Seminar, 1989. 
"Expanding the Horizons" Kansas City Chiefs Quail Run sixth grade with Karen Trifonoff, Cartography and Social Studies (4 sessions), 1991

Chiefs Seminar Resources for the Geography Curriculum 1989
Chiefs Raymore-Peculiar Workshop, 1991, with Amy Rok and Mary Prante
"Maps and Cartography" (Lawrence Central Junior High, 1994)
The Fifteenth Street Connection: Maps and Cartography for the Quail Run Sixth Grade 1996 and 1997

Students

Doctoral Students

- Bloemer, Hubertus H. L.: 1977, Union Graduate School, Map Making for Orienteering: Mapping the Environment for Sport and Recreation
- Corny, James: 1975 (with M. S. Monmonier), Clark, Scenic Analysis
- Dent, Borden D.: 1970, Clark, Perceptual Organization and Thematic Map Communication: Some Principles for Effective Map Design with Special Emphasis on the Figure-Ground Relationship
- Dornbach, John E.: 1967 (with S. B. Cohen and H. J. Warman), Clark, An Analysis of the Map as an Information System Display
- Fitzsimons, Dennis: 1981, Kansas, The Role of Base Data in Information Retrieval from Maps
- Ho, Ming-Chyu: 1992, Kansas -- Human Factors (with R. L. Branhman)
- Moore, Ralph

In process: Chen

Masters Students -- Non-Thesis: Advisor

- Beets, John: 1980, Kansas
- Berte, Mark: 1976, Kansas
- Biggar, Patrick: 19xx, Kansas
- Brewer, John: 1994, Kansas
- Cole, James D. Flanga: 1982, Kansas
- Dulas, Rick L.: 1978, Kansas
- Dumler, James: 1980, Kansas
- El-Awshar, Othman: 1982, Kansas
- Eldridge, Peter: 1981, Kansas
- Hutchinson, John A.: 19xx, Kansas
- Lucellen, Thomas: 1978, Kansas
- McMillan, Lois: 1993, Kansas
- Podolny, Michael: 1994, Kansas
- Reber, Jeffrey: 1981, Kansas
- Skridulis, Kevin: 1993, Kansas
- Wall, Roy D.: 1992, Kansas

In process: Michael Kelly

Masters Students -- Thesis Option: Advisor

- Campbell, Willa: 1994, Kansas
- Chang, Kang-tuang: 1969, Clark, A Psychophysical Study of Quantitative Map Symbols
- Chen, Chen-Hsiung: 1992, Kansas (M. F. A. in Design, with R. L. Branhman)
- Dickson, Margaret
- Dronshick, David: 1975, Clark, Problems in Choropleth Mapping
- Linthicum, David: The Map in Orienteering: An Analysis of the System
- MacEachren, Alan M.: 1976, Kansas, Cognitive Distance in the Urban Environment

Senior Honors Students: Advisor

- Biggar, Patrick: 1978, Kansas
- Cotti, Robert P.: 1972, Clark
- Cox, Carleton W.: 1972, Clark
- Goodman, Ami D.: 1973, Clark
- Meek, Norman C.: 1982, Kansas

Doctoral Students: Reader or Examiner

- Anderson, Nicholas (1970, Clark)
- Barrias, Nicholas (1968, Clark)
- Beaudet, Paul (1968, Clark)
- Bennett, Gordon (1978, Kansas)
George F. McCleary, Jr.

Carolot, William (1967, Clark)
Chang, Kang-tung (1971, Clark)
Cunningham, Keith (1997, Kansas)
Dobson, Michael (1977, Kansas)
Downey, George (1967, Clark)
Gilmartin, Patricia (1980, Kansas)
Glasgow, Jon (1971, Clark)
Hastings, Andrew (1968, Clark)
Hyland, Gerard (1971, Clark)
Jacobs, John (1971, Clark)
Lavin, Steven (1977, Kansas)
Lennon, Ralph (1970, Clark)
McCUTCHEON, Henry (1970, Clark)
McDermott, Dennis (1980, Kansas-Psychology)
Natioli, Salvatore (1970, Clark)
Oltavaro, Nelson (1994, Kansas-Psychology)
Prante, Mary (1997, Kansas)
Radford, John (1971, Clark)
Ritter, Frederick (1968, Clark)
Rockston, Sue (1996, Kansas-Geology)
Sage, Joseph (1971, Clark)
Sawyer, Stephen (1974, Clark)
Shortridge, Barbara G. (1977, Kansas)
Slocum, Terry (1980, Kansas)
Smolkski, Chester (1968, Clark)
Steinke, Theodore (1979, Kansas)
Traylor, Tim (1979, Kansas)
Trifonoff, Karen (1995, Kansas)
Warner, Bruce (1992, Kansas-Psychology)
Zube, Ervin (1971, Clark)

Masters Students: Reader and/or Examiner

Allen, John L. 1966, Clark
Amstutz, Marley 1978, Kansas
Baxter, Carol 1995, Kansas
Bosowski, Elaine F. 1973, Clark
Bottenfield, Barbara 1977, Kansas
Carpenter, Norman 1969, Clark
Chen, Peng-Jen 1992, Kansas-Design
Clark, William Z. 1971, Clark
Coronado-Gonzalez, Jose-Maria 1997, Kansas-Design
Cotti, Robert P. 1975, Kansas
Emerson, William 1971, Clark
Crawford, Nicholas 1972, Clark
Hart, Roger 1971, Clark
Hembree, Gregory 1978, Kansas
Herre, Jeffrey 1970, Clark
Hinzmann, Gordon A. 1969, Clark
Hobart, Stephen 1971, Clark
Holley, Jill 1983, Kansas
Jacobs, John 1967, Clark
Leach, J. Alan 1969, Clark
Lee, David 1980, Kansas
MacCormack, Andrew 1976, Kansas
Marcus, Alan 1972, Clark
Marino, Jill S. 1978, Kansas
Massey, Perry 1972, Clark
Meger, Therese B. 1980, Kansas
Meier, Larry 1978, Kansas
Miner, Joseph 1971, Clark
Muir, Alan 1970, Clark

Pourbabas, Ali A. 1968, Clark
Prince (Taylor), Vicki 1977, Kansas
Schneider-Wilson, Nancy 1995, Kansas-Fine Arts
Simpson, Robert A. 1975, Kansas
Skeet, Bill 1994, Kansas-Special Studies
Smith, David A. 1969, Clark
Soergel, Marilyn 1970, Clark
Takauchi, Sam 1970, Clark
Tangen, Paul 1997, Kansas-Special Studies
Tappan, Grey 1980, Kansas
Thompson, Robert W. 1967, Clark
Vetter, Steve 1976, Kansas
Williamson, Glen 1980, Kansas
Wood, Denis 1970, Clark
Zirbel, Marion 1978, Kansas
David B Mechem

Research
Clouds and precipitation processes constitute the greatest uncertainty in predictions of global climate change. Two obstacles stand in the way of reducing these uncertainties. First, much is still unknown about how clouds respond to, and ultimately affect, their environment. The second obstacle concerns how clouds are represented in global climate models (GCMs), since individual clouds in the real world are much smaller than current GCMs can resolve. This dilemma requires the development of simple formulations, called "parameterizations," of clouds. My research program is focused on clouds, specifically investigating fundamental cloud and precipitation processes in order to ultimately improve the representation of clouds in GCMs.

Guided by observational results, I use a variety of numerical models to investigate cloud system processes. A common thread that runs through much of my work is the focus on cloud microphysics, best described as the interaction between atmospheric aerosol, cloud droplets, and precipitation. Understanding these aerosol–cloud–precipitation interactions is critical in order to quantify the anthropogenic contribution to climate change. The low-altitude (boundary layer) liquid water clouds I study are a natural laboratory for understanding aerosol–cloud–precipitation interactions and also happen to exert the greatest impact on the global energy balance. My research investigates these clouds in a variety of environments, including the northeast Pacific off the coast of California, the northeast Atlantic, the southeast Pacific, and the central continental United States. Where available, I employ remotely-sensed observations of clouds from radar, lidar, and other instruments.

Together with colleagues here at KU and as part of our NSF EPSCoR grant, I will be conducting regional climate model simulations over the Great Plains region for different climate change scenarios. These simulations will be employed to answer questions pertaining to growing season precipitation statistics, behavior of convective rainfall and cloud structures, vegetation–precipitation interactions, regional water recycling, and the effects of irrigation. Nate Brunsell, Johan Feddema, and I are collaborators on this research.

I am actively collaborating with colleagues (Sandra Yuter, North Carolina State; Simon deSzoeke, Oregon State; Chris Fairall, NOAA/ESRL) involved in VOCALS, a recent field campaign over the southeast Pacific. My contribution is a process-modeling complement to ship-based multi-sensor observations of boundary layer clouds in VOCALS. I have contributed significantly to this project, and further research funds and graduate student assistance are pending. This is an ideal example of collaboration between modeler and observationalist. I anticipate a similar level of interaction in further collaboration with Valery Melnikov and Phil Chilson (University of Oklahoma) on a joint project involving NEXRAD sensing of clouds. My long-standing fruitful collaboration with Yefim Kogan (University of
Oklahoma and University of California San Diego) will continue. I envision these collaborations will become more focused on fundamental cloud physics processes. I will also continue collaborations with the GCSS Boundary Layer Working Group that organizes model intercomparisons. My work has been funded through the National Science Foundation and the Office of Naval Research.

**Teaching**
I most regularly teach Physical Meteorology (ATMO 680) and a two-semester sequence on dynamical meteorology (ATMO 640 and 660). With the advent of our M.S. in Atmospheric Science, I also will be teaching graduate courses, as I did last semester (ATMO 720; Numerical Modeling).

My undergraduate advising primarily consists of advising atmospheric science undergraduates on class choices. Because the Atmospheric Science program has approximately 75 students and only four regular faculty, I see quite a few students on a regular basis. Many of our majors are transfer students, and I take particular care in answering their questions regarding prerequisites, ensuring they are on a schedule enabling them to graduate in a timely manner, and in general making their transition to KU happen as smoothly as possible. Because of these efforts, I was honored as a recipient of the 2009 J. Michael Young award for academic advising. More broadly, undergraduate advising consists of informal conversations with students about potential careers, technical skills, and graduate school recommendations, among a multitude of topics. I strive to be as responsive as possible, maintaining an open-door policy. I also actively advise undergraduate research projects for students graduating with departmental honors.

**Service**
Assistant Professors are expected to perform limited services. I am the Undergraduate coordinator of the Atmospheric Science Program and am the Atmospheric Science representative on the Undergraduate Studies Committee. I represent the first point of contact for many potential students considering our program.

Over the past year, I have participated in numerous interviews for local media outlets. I also am a member of the AMS Committee on Cloud Physics (Science and Technologies Activities Commission) and conduct a significant number of manuscript reviews.
Curriculum Vitae

David B. Mechem
Atmospheric Science Program
Department of Geography
University of Kansas
1475 Jayhawk Blvd., Room 213
Lawrence, KS  66045-7613
Phone: 785-864-5707  Fax: 785-864-5378
Email: dmechem@ku.edu

Education

2003   Ph.D.   Atmospheric Sciences   University of Washington
1993   B.S.   Meteorology with Mathematics minor, summa cum laude   University of Oklahoma

Professional Experience

08/2007-present   Assistant Professor, Department of Geography, University of Kansas
07/2003-08/2007   Research Scientist, Cooperative Institute for Mesoscale Meteorological Studies, Norman, OK
01/2004-05/2004   Adjunct Instructor, School of Meteorology (Physical Meteorology II), University of Oklahoma, Norman, OK
11/2002   Guest Lecturer, METR 5233 (Graduate cloud physics), University of Oklahoma, Norman, OK
01/2001-07/2003   Research Associate, Cooperative Institute for Mesoscale Meteorological Studies, Norman, OK
01/1999-12/2000   Research Associate, Coastal Meteorology Research Program, Norman, OK
09/1993-12/1998   Research Assistant, Department of Atmospheric Sciences, University of Washington, Seattle, WA
09/1994-12/1994   Teaching Assistant, Department of Atmospheric Sciences, University of Washington, Seattle, WA
09/1989-08/1993   Meteorological Technician, National Severe Storms Laboratory, Norman, OK

Presentations, Posters, and Meeting Participation

12/2009   American Geophysical Union Annual Meeting, San Francisco, CA
08/2009   Conference on Mesoscale Processes, Salt Lake City, UT
12/2008   American Geophysical Union Annual Meeting, San Francisco, CA
12/2008   Kansas Energy and Environmental Policy Advisory Group Meeting, Topeka, Kansas
10/2008   Department of Chemical and Petroleum Engineering, University of Kansas, Lawrence, KS
07/2008   International Conference on Clouds and Precipitation, Cancún, Mexico
03/2008   ARM Program Science Team Meeting, Norfolk, VA
01/2008   American Meteorological Society Annual Meeting, New Orleans, Louisiana
Field Project Participation

07/2001 Dynamics and Chemistry of Marine Stratocumulus (DYCOMS-II)
12/1995 Coastal Observation and Simulation with Topography Experiment (COAST-II)
**Funded Proposals**


"Regional modeling infrastructure for assessing precipitation feedbacks in climate change scenarios" [PI, 4/2009-2011, New Faculty General Research Fund, University of Kansas, $7870.70]


**Professional Societies and Service**

Member, American Meteorological Society
Member, American Geophysical Union


Reviewer for National Science Foundation proposals

Session chair: Fifth Conference on Coastal Atmospheric and Oceanic Prediction and Processes, 6-8 Aug. 2003, Seattle, WA, American Meteorological Society

Session chair: 13th Conference on Mesoscale Processes, 17-20 August 2009, Salt Lake City, UT, American Meteorological Society

Member, AMS Committee on Cloud Physics (Scientific and Technologies Activities Commission)

J. Michael Young award for academic advising in the College of Liberal Arts and Sciences

**Publications**

*Formal*


Informal (Selected)


Garth Andrew Myers
Curriculum Vitae – January 2010
Present Position: Director, Kansas African Studies Center
Professor, Departments of Geography and African/African American Studies
University of Kansas, Lawrence, KS USA 66045

Education

- **Ph.D. in Geography: University of California, Los Angeles 1993**

- **MA in African Area Studies: University of California, Los Angeles 1986**

- **BA with Honors in History: Bowdoin College, Brunswick, Maine 1984**

Professional Experience

- **Director, Kansas African Studies Center 2006-**
  Title VI National Resource Center, Foreign Language & Area Studies Fellowship Center, US Department of Education, 2006-2010 (on leave 2009-10)

- **Professor University of Kansas 2008-**
- **Associate Professor University of Kansas 2001-2008**
- **Assistant Professor University of Kansas 1995-2001**
  *Courtesy Faculty: Environmental Studies Program, American Studies Program*

- **Assistant Professor University of Nebraska at Omaha 1994-5**
  Urbanization in Developing Areas, World Regional Geography, Political Geography, Cultural Geography

- **Visiting Assistant Professor Miami University 1993-4**
  Third World Urban Geography, Geography of Sub-Saharan Africa, World Regional Geography, Advanced Seminar on Africa, African Civilizations

- **Lecturer California State University at Dominguez Hills 1990 and 1992**

- **Teaching Fellow UCLA Department of Geography 1988-91 and 1993**

- **Middle School Social Studies Teacher Rumson, New Jersey 1986-8**
Publications: Books (2)


Publications: Edited Books (1)


Publications: Major Refereed Articles (29)


**Publications: Book Chapters (13)**


**Major Articles or Book Chapters in Press, Review or Preparation (7)**

*In Press*


*In Review*


**In Preparation**


**Reviews and Minor Publications (37)**


**External Research Grants Received**

National Science Foundation: “Peri-Urban Land Reform and Political-Economic Reform in Zanzibar, Tanzania,” 2006-2008 ($123,983), PI.

Kansas Humanities Council: “Identity, Voice, and Community among New African Immigrants to Kansas,” 2005 ($8,000), co-PI with John Janzen as PI.

Fulbright Africa Regional Research Program: “Participatory Urban Planning and the Sustainable Cities Program in Lusaka, Dar es Salaam, and Zanzibar,” 2002-3 ($48,125), PI.

National Science Foundation: Dissertation Improvement Grant, Geography and Regional Science Program: “Fire Breaks: Conservation Planning, Place-Making, and Fractured Identities in the Gran Sabana, Venezuela,” 2001-2002 ($10,000), co-PI, with Barbara Lynch as PI and Bjorn Sletto as co-PI.


American Council of Learned Societies: Competitive Grant for International Conference Travel, 1996 ($500).


**External Program Grants Received**

Oswald Family Foundation, pilot program for supporting student field research on applied health and development policy in Africa, awarded for 2008-09 ($12,000), co-PI with Elizabeth Asiedu.

National Resource Center and Foreign Language & Area Studies grant, U.S. Department of Education Title VI Program, awarded July 2006 ($1.4 million for 2006-10), Project Director.

Longview Foundation, awarded for 2006-07 ($20,000), co-PI with John Janzen and Khalid El-Hassan, “Teaching Africa and the Middle East in the Midwest.”

Bureau of Educational and Cultural Affairs College and University Affiliation Program, US Department of State: “Partnership between the University of Kansas and the University of Zambia: Enhancing Technological Capabilities in Environmental Science Teaching and Research,” 2000-2004 ($142,138), Project Director, with Imasiku Nyambe as co-Director, and Johan Feddema and Iwake Masialeti as Assistant Directors.

**Internal Research Grants Received**

Hall Center for the Humanities, Humanities Research Fellowship, Fall 2009, for *African Cities*. 

KU Center for Research, Major Project Planning Grant, 2004-5, for “Enhancing the Competitiveness of the Kansas African Studies Center for National Resource Center Funding,” co-PI with John Janzen as PI.


Humanities General Research Fund, University of Kansas, 2001, for “Urban Poverty and Urban Sustainability: Small Scale Mining and Modern Living in Lusaka’s Compounds” ($5888).

Humanities General Research Fund, University of Kansas, 1999 and 2000, for “Resource Management and Development in Zanzibar's Coral Bush Areas” ($5598 and $5888).


Hall Humanities Center Travel Grants, University of Kansas, 1996 and 2000: Archival Research in the United Kingdom ($1310) and Zambia ($1190).


International Programs Research Fund, University of Kansas, 1997: Archival and Field Research in Malawi ($1000).

University Committee on Research, University of Nebraska Omaha, 1995: Summer Research Fellowship in Zanzibar, Tanzania ($7920).

UCLA International Studies and Overseas Programs, Dissertation Research Fellowship, 1991-2 ($10,000).

UCLA Bruman Fellowship in Cultural-Historical Geography, 1991-2 ($1500).

UCLA National Resource Fellowship (Title VI: Kiswahili), 1988-90 ($15,000).

Presentations


“What Zanzibar’s Peri-Urban Poor Think about Pro-Poor Planning,” paper presented at the annual meeting of the Association of American Geographers, Boston, MA, April 2008; the Geography colloquium at Texas A&M University, College Station, TX, February 2008; the African Studies Center, Kansas State University, Manhattan, KS, March 2008; the Institute of British Geographers meeting, London, UK, September 2008; and the Mid-America Alliance for African Studies meeting, St. Louis, October 2008.


“Representations of Mogadishu in *Black Hawk Down* and Nuruddin Farah’s novels,” paper presented to the Fall Faculty Colloquium on Representing the Middle East, Hall Center for the


Hall Center for the Humanities lecture series on Discourses: Theory across the Disciplines: Homi Bhabha’s *The Location of Culture*, University of Kansas, April 2006.


“Planning Sustainable Cities in Eastern and Southern Africa,” paper presented to the annual meeting of the Association of American Geographers, Philadelphia, March 17, 2004; to the geography colloquium series at Kansas State University, Manhattan, KS, December 1, 2003; and to the geography colloquium series at the University of Kansas, September 26, 2003.


Named Participant, National Science Foundation workshop on “Space, Race and Migration in Comparative Perspective”, a collaboration of US and South African geographers, August 9-12, 2002, Johannesburg, South Africa.


“Narrative Representations of Zanzibar's Revolution,” paper presented to the annual meeting of the Mid-America Alliance for African Studies, September 1999, Lawrence, KS.


“Sticks and Stones: Hegemony and the Language of African Houses,” paper presented to the Conference on Knowledge and Discourse, University of Hong Kong, June 1996.


“Naming and Placing the Other: Power and the Urban Landscape in Zanzibar,” paper presented to the Symposium on Landscape and Identity, Northwestern University, April 1994.


“Space and Social Transformation in Maliindi: The 'Geography of Postmodernization?',” paper presented to the Association of American Geographers, Toronto, April 1990.


Honors Received

- Kwadwo Konadu Agyemang Distinguished Scholar Award, 2010, Africa Specialty Group of the Association of American Geographers (1st time award has been given)
- Nominated Finalist, Chancellor’s Teaching Award, University of Kansas, Spring 2009.
- James Seaver Lecture, Humanities and Western Civilization Program, University of Kansas, February, 2006.
- Distinguished Visitor Program, University College London Department of Geography, March 9-23, 2005
- University of Kansas, Provost’s Award for Leadership in International Education, 2003 ($1000)
- University of Kansas, Kemper Foundation Fellowship for Teaching Excellence, 2000 ($5000)
- University of Kansas Center for Teaching Excellence, Teacher Appreciation award for graduate teaching in Geography, 1999
- University of Kansas Geography Department, Departmental Nomination for Kemper Foundation Fellowship for Teaching Excellence, 1999
- AAG Cultural Geography Specialty Group Award 1993 Best Student Paper (for “Power, Faith and Custom”)
- AAG Political Geography Specialty Group Award 1991 Best Student Paper (Honorable Mention, for “Taking Malindi Apart”)
- Graduate Division Award for Thesis Research 1986 University of California, Los Angeles
- Goodwin Commencement Speaker Prize, O'Brian Graduate Fellowship, Brown Composition Prize, Forbes-Rickard Poetry Prize, 1984, Bowdoin College, Brunswick, Maine.

Fieldwork and Research Experience

- Leader, KU Study Abroad course at the International School, Rhodes University, Grahamstown, South Africa, June-July 2009
- Research in Helsinki, Finland (May 2007)
- Research on and with Tanzanians in Wichita and Kansas City (June-October 2005).
- Research in Dar es Salaam and Zanzibar, Tanzania, May-August 2003 (3 months total).
- Fieldwork in Zanzibar, Tanzania, 1999-2000 (four months total).
• Archival Research and Fieldwork conducted in Malawi and Tanzania, 1997 (one month).
• Research for Columbia Gazetteer of the World on toponyms of Mauritius and Seychelles, 1996.
• Fieldwork in Zanzibar, Tanzania, 1995 (three months).
• Pre-dissertation Fieldwork and Language Training in Kenya and Tanzania, 1989 (two months).
• Research Assistant, UCLA African Studies Center Development Institute, 1984-6.
• Research Internship, St. Lawrence University in Kenya, 1982.

Memberships and Professional Service

National and International
• Royal Geographical Society/Institute of British Geographers, Fellow since 2001.
• American Geographical Society: member since 1999.
• African Studies Association: member since 1988, member of Association of Concerned Africa Scholars from 1990-1995; and Tanzania Studies Association since 1996.
• Association of African Studies Programs, University of Kansas representative, 2004-08.
• USIA University Affiliations Grant Faculty Panel for Environment Proposals, 1997.
• Member, Editorial Board, Cultural Geographies (formerly Ecumene), 1999-2009.
• Co-Editor, Historical Geography, 2006-; Member, Editorial Board, 2005-06.
• Member, Editorial Board, Journal of Historical Geography, 2005-09.

Regional
• Mid-America Alliance for African Studies: member since 1995, Secretary-Treasurer 1997-9, Assistant Secretary-Treasurer, 1999-2003; Vice-President/President-Elect, 2005-06 and 2009-10; President, 2006-07 and 2010-11, Past President, 2007-08 and 2011-12.

University, College, and Departmental
Director, University of Kansas African Studies Center, 2006-; Secretary of Executive Committee, 1998-2000, Associate Director, 2002-03 and 2004-06, Acting Director, Spring 2004. Director, University Affiliation Program between the University of Kansas and the University of Zambia, 2000-2004.
Department of Geography Student Affairs Committee, 1995-8; Colloquium Committee, 1998-2000 and 2008-09 (Chair 1998-2000); Undergraduate Affairs Committee, 2000-02; Faculty Affairs Committee, 2003-05; Curriculum Committee 2005-07 (Chair 2005-06).
Department of African and African American Studies Faculty Affairs Committee, 1996-.
University Honors Fellowship Proposal Evaluation Committee, 1998.
University Faculty Rights, Privileges and Responsibilities Committee, 2000-2003.
College Committee on Sabbatical Leaves, 2003-6 (Chair, 2004-05 and 2005-06).
Center for Global and International Studies, Steering Committee, 2008-09
University Committee on Sabbatical Leaves, 2006-07.
International Programs Provost Award (Woodyard Award) Committee, 2004-05 and 2007-08.
Graduate Council Standing Committee on Graduate Faculty Appointments, 2001-2002.
Dean’s Review Committee, MA Program in International Studies, 2005-2006.
College Graduate Program Review Committee, 2005-2006.
Senior Administrative Fellows program, 2007-08.
Search Committee, Associate Vice-Provost for International Programs, 2007-08.
Chancellor’s Task Force on Innovation, Sub-Committee on ‘Raising the Research Bar’, 2008
Executive Committee of the Graduate Faculty, Office of Graduate Studies, 2008-09

**Graduate Student Supervision**

*PhD:*

Jack Livingston  
(PhD 2001, Associate Professor, Slippery Rock University)  
Fulbright to Trinidad and Tobago

Peter Sam  
(PhD 2002, Senior Scientist, US Environmental Protection Agency)

Mohamed A. M. Dosi  
(PhD 2003, Assistant Professor, East Stroudsburg University)

Mark Carper  
(PhD 2004, Assistant Professor, University of Alaska-Anchorage)  
Fulbright to Bulgaria

Cameron McCormick  
(PhD 2004, Assistant Professor, Spokane Falls Community College)  
Fulbright to Cameroon

Sarah Smiley  
(PhD 2007, Assistant Professor, Morgan State University)  
Madison and Lila Self Fellowship, Fulbright to Tanzania

Joshua Long  
(PhD 2008, Assistant Professor, Franklin College, Switzerland)

Angela Gray  
(PhD 2009, Assistant Professor, University of Wisconsin-Oshkosh)  
Fulbright to Zambia, 2007-08 Dissertation Fellowship at KU

Hilary Hungerford  
(ABD 2009)  
FLAS Fellow, KASC (Hausa), Baumgartel Peace & Justice Award,  
Fulbright to Niger (2009-10)

Megan Holroyd  
(ABD 2009)  
FLAS Fellow, KASC (KiSwahili), Oswald Fellowship to Tanzania  
Goodall Institute Fellowship to Tanzania, 2009-10

Makame Muhajir  
(ABD 2009)

Shimantini Shome  
(ABD 2010)

Anton Menning

Courtney Miller

John Oakes

Almokhtar Attwairi

*MA:*

Craig Flowers  
(MA 1997) *Special Studies*  
Instructor, USMA, West Point, 2003-.

Craig Davis  
(MA 2000) Professor, Geography, Sacramento City College, 2000-.

Rachel Saifullah  
(MA 2003)

Sarah Smiley  
(MA 2003) PhD at KU in Geography, 2007

Angela Gray  
(MA 2003) PhD at KU in Geography, 2009

Julie Morris  
(MA 2004)
Drew Bednasek    (MA 2005), PhD student, Queen’s University, Kingston, Ontario.
Edmond Mara     (MA 2005) *International Studies*
Octave Mugabwineza (MA 2005) *International Studies*
Ray Agyemang    (MA 2006) *International Studies*
Amy Potter     (MA 2006) PhD student, Louisiana State University
Ryan Lash      (MA 2007) Cartographer, Centers for Disease Control, Atlanta, GA
Hilary Hungerford  (MA 2007) Outstanding Thesis Award 2007 at KU; PhD student in Geography, KU
Victoria Downey (MA 2007) PhD student, University of Minnesota
Karen Wetugi   (MA 2007) *International Studies*
Levi Gahman    (MA 2008) PhD student in Geography, University of British Columbia-Okanagan
Abdirahman Gutale (MA 2008) *International Studies* FLAS Fellow, KASC, Arabic
Luke Struckman (MA 2009) FLAS Fellow, KASC, Arabic; PhD student in Geography, Carleton (ONT)
Emmanuel Birdling (MA 2009) *International Studies* PhD student in Geography, KU
Ryan Good      Oswald Fellowship; PhD student in Geography, Florida
Jamie Shinn    FLAS Fellow, KASC, KiSwahili
Dylan Bassett  *International Studies* FLAS Fellow, KASC, Wolof

**Honors Undergraduate Thesis Supervision**
Jeremy Lind, Environmental Studies, 1998 (MA SOAS 1999, PhD, King’s College London, 2006; Lecturer, Development Studies, University of Sussex (UK))
Tom Buller, Geography, 1999 (MA Minnesota)
Morgan Browning, Geography, 1999
Rachel Saifullah, Geography, 1999 (MA University of Kansas)
Anton Menning, Geography, 2003 (MA, School of Journalism; PhD Student, Geography, KU)
Justin Schmalberg, AAAS, 2004 (DVM student, University of Wisconsin Veterinary School)
Ryan Good, Geography, 2006 (MA 2009, Geography, KU, PhD student, Florida)
Zachary Hutcheson, Geography, 2006 (National Geographic Society Intern, 2007)
Nate Blum, Geography, 2007
Sarah Madden, AAAS, 2008
Raha Greenham, AAAS, 2008

**Languages**
I am fluent in Kiswahili. I have minimal knowledge of French, German, and Chinyanja.

**References**
- Thomas Klak, Professor of Geography, Miami University, Oxford, Ohio, USA 45056, 513-529-4049, email: klakt@muohio.edu
- Richard Harris, Professor and Director, School of Geography and Geology, McMaster University, Hamilton, Ontario, Canada, L8S 4K1. Phone: (905)525-9140 ext.27216; Fax (905)546-0463, email: harrisr@univmail.cis.mcmaster.ca.
- Richard Schroeder, Associate Professor of Geography, Rutgers University, 54 Joyce Kilmer Avenue, Piscataway, NJ 08854-8045, Phone: (732) 445-4019; Fax: (732) 445-0006. Email: tschroed@rci.rutgers.edu.
- Dr. Deborah Potts, Senior Lecturer, Room 3CA, Chesham Building, Department of Geography, King’s College London, Strand Campus, London, WC2R 2LS, UK, Phone: (44)-020-7848-1572, Fax. (44)-020-7848-2287, email: debby.potts@kcl.ac.uk
Dr. Martin Murray, Professor, School of Architecture and Urban Planning, University of Michigan, Ann Arbor, MI, email: murraymj@umich.edu
Dr. O’Lear is an Associate Professor at the University of Kansas. She has appointments in the Department of Geography and the Environmental Studies Program and is affiliated with the Center for Russian, East European and Eurasian Studies at the University of Kansas. She teaches courses on Environmental Policy, Environmental Geopolitics, Geopolitics of Russia & Eurasia, Geography of Genocide and Introductory Human Geography. Her region of research is the South Caucasus. She was funded by the National Science Foundation to conduct a study investigating resource-related conflict in Azerbaijan. The study included the collection of survey data from 1,200 people on their environmental perceptions, political activity, and day-to-day concerns. She is a Board member on an Armenian Partnership Project with the Kansas National Guard, and she regularly gives briefings at the Air Force Special Operations Command Center at Hurlburt Field, Florida. She recently completed a book titled /Environmental Politics: Scale and Power/ with Cambridge University Press. She has received a Kemper Teaching Award and has served as a Faculty Fellow at the Center for Teaching Excellence. She received her B.A. and MA degrees from the University of Colorado at Boulder and holds a Ph.D. in Geography from Syracuse University.
Shannon O’Lear, Ph.D.
Curriculum Vitae
March 2010

RANK AND AFFILIATION:
Associate Professor (as of August 2007)
Department of Geography and Environmental Studies Program
1475 Jayhawk Blvd
213 Lindley Hall
University of Kansas
Lawrence, KS 66045-7613

Tel. 785.864.2041  Fax 785.864.5378
E-mail: olear@ku.edu

EDUCATION:

Ph.D. (1997) Department of Geography, Syracuse University; Dissertation Title: E-Mail Use in the Contexts of Place, Social Networks and Empowerment: An Examination of Grassroots Environmentalists in Estonia and Russia

MA. (1992) Department of Geography, University of Colorado at Boulder; Thesis Title: Perestroika In Geographic Perspective: An Examination of Soviet Foreign Trade and Civil Unrest in the 1980s

BA. (1990) University of Colorado at Boulder, Double Major: Geography and Russian

PUBLICATIONS:

Peer Reviewed Journal Articles (14)


**Book (1)**


**Book chapters (6)**


**Guest Editing and Special Issues (3)**

O’Lear, Shannon and Steven Egbert. 2009. Guest editors for a theme issue of *Space & Polity* on Geography of Genocide, April, 13:1


**Book Reviews and non-reviewed publications (+ invited) (8)**


(+) O’Lear, Shannon. 2006. Submissions for the *Encyclopedia of Human Geography* (ed. Barney Warf) Thousand Oaks: SAGE Publications (contributed entries for communism (pp. 52-53), democracy (pp. 91-92) and socialism (p. 439)


(+) O’Lear, Shannon. 2002. “Disengagement: The Oil Question” in *Swords and Ploughshares* (comments from War: A Campus Forum on Iraq), The bulletin of the Program in Arms Control, Disarmament, and International Security at the University of Illinois at Urbana-Champaign. 14:3 (Winter), pp. 6-10


**LANGUAGES:**
Russian - proficient
Azerbaijani – basic training

**GRANT AWARDS:**

*Center for Russian, Eastern European and Eurasian Studies* Course Development Grant in support of “Eurasian Security and Geopolitics” course. Amount: $2,500

*Center for Teaching Excellence* grant to participate in the spring 2008 Faculty Seminar; project with Prof. Mariya Omelicheva focused on developing the structure for our co-taught, cross-listed “Eurasian Security and Geopolitics” course offered for the first time in fall 2008. Amount: $1,000

*University of Kansas General Research Fund Award* to support summer 2007 manuscript development; project title, “Corridors of Power: Environmental and Security Impacts of Oil Pipeline and Railway Development in Azerbaijan and Georgia”, award amount: $8,000.00 (awarded 31 August 2006)

*University of Kansas General Research Fund Award* to support summer 2005 pilot study in Azerbaijan and Georgia titled, “Oil Pipelines in the South Caucasus: A geographic pilot study of multi-dimensional impacts and political stability”; award amount: $4,438.00

*National Science Foundation* grant to support a two-year project titled, “Geography of Environmental Conflict: The Case of Azerbaijan” in 2004-2006; Principle Investigator: Shannon O’Lear. Award amount: $147,142.00. (No-cost extension received through March 2007)

*International Research & Exchanges Board (IREX) and the Kennan Institute of the Woodrow Wilson Center* grant to participate in the Caspian Sea Regional Policy Symposium, Washington, D.C. and Shepherdstown, WV, 14-16 March 2002.

*Social Science Research Council Fellowship* to study the Azerbaijani language in the 2000 Summer Workshop in Slavic, East European and Central Asian Languages (SWEESL) at Indiana University

Research support funding to travel to Bloomington, Indiana to use the library resources of the Inner Asian and Uralic National Research Center, Indiana University, summer 2000
National Academy of Sciences/National Research Council follow-up travel funding for fieldwork in Azerbaijan during summer 2000

**National Academy of Sciences/National Research Council Young Investigator Program** on Energy Issues in Armenia; grant to support collaborative research in and summer travel to Armenia, summer 1999

Illinois State University Research Grant to support travel to Baku, Azerbaijan; College of Arts and Sciences, Illinois State University, 1999

Roscoe Martin Award, The Maxwell School of Citizenship and Public Affairs, Syracuse University, 1995

Association of American Geographers Political Geography Specialty Group Dissertation Enhancement Award, 1995

**PROFESSIONAL HONORS AND AWARDS:**

Awarded a W.T. Kemper Fellowship for teaching, August 2008 ($5,000)

Faculty Fellow at the Center for Teaching Excellence, University of Kansas, 2007-2008

Faculty Service Award from the Center for Russian, Eastern Europe and Eurasian Studies, University of Kansas, 2006

Fellowship in the Illinois Program for Research in the Humanities for the 2002-2003 academic year (included one semester teaching buy-out)

Teaching Initiative Award for junior faculty, Illinois State University, 2000-2001

Research Initiative Award for junior faculty, Illinois State University, 1999-2000

Certificate in University Teaching granted by the Future Professoriate Project of the Graduate School, Syracuse University, 1997

Outstanding Teaching Assistant Award from the Graduate School, Syracuse University, 1994

**RESEARCH:**

**Current Research Activities:**
I am completing work on an NSF-funded project to examine why resource conflict is not evident in Azerbaijan despite the fact that this country exhibits key features cited in the resource conflict literature. Data from a survey of 1200 citizens on their views of the oil industry, perceptions of environmental quality, and political activity will complement a second dataset derived from in-depth interviews in which people were asked to elaborate on these themes. I am using these data to examine four research questions regarding the apparent lack of conflict in this context. Results from this project suggest that a focus on
resource conflict may not be as useful as investigating human security, investment patterns and trends in public participation as more precise process categories linked to resource conditions.

Research Interests:
- Political geography of environmental issues
- Environmental security and vulnerability
- Political geography of former Soviet republics
- Human dimensions of global change

TEACHING:
Teaching Experience (selected):

**University of Kansas** (Current position since August 2004)
- Principles of Human Geography (GEOG 102)
- Environmental Policy and Analysis (EVRN 320)
- Geopolitics of Russia and Eurasia (GEOG 571/772)
- Professional Development in Teaching (GEOG 980)
- Geography of Genocide (GEOG 571)
- Eurasian Security and Geopolitics (cross-listed, GEOG 571)

**University of Illinois at Urbana-Champaign** (Tenure track, August 2001 – August 2004)
- International Conflicts (GEOG 110)
- Russia and Eurasia (GEOG 353)
- Environmental Policy (GEOG 366)

**Illinois State University** (Tenure track position August 1998 – May 2001)
- World Geography
- Human Geography
- Conservation
- The Former Soviet Union
- Russian History, Culture and Ecology (Field study in Vladimir, Russia)

Teaching Development:
- University of Illinois at Urbana-Champaign College of Liberal Arts and Sciences Teaching Academy and Teaching Mentor Program, academic year 2001-2002
- Active Learning Summer Workshop; June 15-19 1998, Department of Geography, Arizona State University, Tempe, Arizona

Participant in the College Commission on Geography teaching workshop, Hands-On! Developing Active Learning Modules on the Human Dimensions of Global Change, sponsored by the
Association of American Geographers; June 18-21, 1996 at Clark University, Worcester, Massachusetts


Teaching Fellow with the Teaching Assistant Program of the Graduate School, Syracuse University, 1993 and 1994

Served on two panels for the Professional Development seminar sponsored by the Teaching Assistant Program, fall 1993

Participated in the Teaching Assistant Orientation Program, Syracuse University, fall 1992

**Teaching Interests:**
- Geography of International Conflicts
- Environmental Security
- Geography of Russia, the Caucasus and Central Eurasia
- Environmental Issues and Policy
- Political Geography and Geopolitics
- Human Dimensions of Global Change
- Introductory Human Geography

**PRESENTATIONS AND CONFERENCE PARTICIPATION:**

Invited panelist at a workshop on Antarctica organized by Centra Technology, Inc.; Arlington, VA, 14 April 2010

Invited presentations on Central Asia and Caspian Basin Energy at the Russia/Eurasia Orientation Course at Hurlburt Field (Air Force Special Operations Command), Fort Walton Beach, FL, 5 February 2010

Invited presentation on Ecological Residue of Soviet Planning at the Russia/Eurasia Orientation Course at Hurlburt Field (Air Force Special Operations Command), Fort Walton Beach, FL, 24 March 2009


Invited presentation on Ecological Residue of Soviet Planning at the Russia/Eurasia Orientation Course at Hurlburt Field (Air Force Special Operations Command), Fort Walton Beach, FL, 16 September 2008


Led, by invitation, a one-day workshop on Central Asia and the Caucasus at Fairfield University in Fairfield, CT, as part of a Department of Education grant, 17 June 2008.


Served as a participant on a panel titled, “Iraq: problems and prospects” at the Annual Meeting of the Association of American Geographers, Boston, MA 14-19 April 2008

Served as a participant on a panel titled, “How to study post-Soviet space II: issues of transition across regions and states” at the Annual Meeting of the Association of American Geographers, Boston, MA 14-19 April 2008


**Invited** presentation titled, “A Post-Soviet Country, A Lot of Oil, A recipe for Conflict? What the resource conflict literature doesn’t tell us about the case of Azerbaijan” to the Department of Geosciences at the University of Arkansas, Fayetteville, AR, 7 March 2008


**Invited** brownbag presentation titled, “Spatial Patterns of Public Concerns and Political Opinion in Azerbaijan” at the Center for Russian, East European and Eurasian Studies at KU, 2 October 2007

**Invited** presentations on 1) Central Asian Energy and Security and 2) Caspian Basin Geopolitics at the South/Central Asia Orientation Course at Hurlburt Field (Air Force Special Operations Command), Fort Walton Beach, FL, 27 June 2007
“Geography of Genocide: Preliminary Thoughts” presentation at the Political Geography Preconference (Political Geography Specialty Group of the Association of American Geographers), Berkeley, CA, 15-17 April 2007 (co-authored with Steve Egbert)

**Invited** presentation with Steve Egbert, titled, “‘Geography of Genocide: Preliminary thoughts”, Department of Geography/Geology at Northwest Missouri State University, for Geography Awareness Week, Maryville, MO, 15 November 2006


Presentation to the Graduate Teaching Assistance conference, sponsored by the Center for Teaching Excellence (KU); session title: Establishing Credibility (presented twice), 10 August 2006.

Presentation to The Annual Teaching Summit, sponsored by the Center for Teaching Excellence (KU); session title: "Resources for New Faculty on the Lawrence Campus" (co-presented twice with Catharine Weaver) 15 August 2006.


**Invited** speaker at Communities and Conflicts in Central Asia and the Caucasus, a current affairs forum organized by the Russian, East European, and Eurasian Center at the University of Illinois at Urbana-Champaign; presentation title, “Public Perception of Oil, Natural Resources and Political Activity in Azerbaijan”, Champaign-Urbana, IL, 30 September 2004.

“Which Comes First, the Nation or the State? Armenia, Azerbaijan and Placing Nagorno-Karabakh”, Geography Department colloquium presentation with Robert Whiting, University of Illinois at Urbana-Champaign, IL, 16 April 2004.


“Scale and Environmental Conflict”, Geography Department colloquium presentation with Paul F. Diehl, Department of Political Science, University of Illinois at Urbana-Champaign, 5 December 2003.

Workshop participant and presenter at the National Science Foundation-funded International Collaborative Workshop to develop a scholarly network in the southern tier of the post-socialist states, Madison, Wisconsin, 27-30 May 2003.


Panelist: “War? A campus forum on Iraq”, organized by the Program in Arms Control, Disarmament, and International Security at the University of Illinois at Urbana-Champaign, 1 October 2002.


Roundtable presenter at the Summer Workshop in Slavic, East European and Central Asian Languages at Indiana University, Bloomington, Indiana, 3 August 2000; session title: “Contemporary Issues in Central Asia and the Caucasus”.

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Attended the 22nd Annual Hazards Research and Applications Workshop in Denver, Colorado, 13-16 July 1997.

Attended the 1997 Open Meeting of the Human Dimensions of Global Environmental Change Research Community in Laxenburg, Austria, 12-14 June.


Pre-Conference workshop leader at the National Meeting of the Association of American Geographers in Fort Worth, Texas, 1-5 April 1997; workshop title: “Active Undergraduate Teaching and Learning”.
“Political Geography Approaches to Human Dimensions of Global Change: An Introduction “;
Organized three sessions and presented a paper at the National Meeting of the Association of
American Geographers in Fort Worth, Texas, 1-5 April 1997 (session titles: “Political
Geography Approaches to Human Dimensions of Global Change I, II and III”).

Attended National Science Foundation-sponsored Workshop on Distributed Heterogeneous
Knowledge Networks in Boulder, CO, 8-9 May 1997.

Workshop organizer and presenter at the Great Plains-Rocky Mountain Division of the
Association of American Geographers in Greeley, Colorado, 26-28 September 1996; workshop
title: "Active Learning Modules in Geography: Human Dimensions of Global Change".

“E-mail Communication and Transboundary Environmental Policy: A Case of Successful
Cooperation in the Former Soviet Republics”, presented at the National Meeting of the

“Environmentalism in Russia: Multi-Scale Implications of E-Mail Use for Decision-Making”,
presented at the National Meeting of the Association of American Geographers in Chicago,

Panel speaker at the Syracuse University Graduate School's Faculty Teaching Mentors Seminar,
Minnowbrook Conference Center, 10-12 May 1994; Session titles: "On Mentoring and Being
Mentored" and "Teaching Associate Perspectives on the Future Professorate Project".

“Russian Environmentalism: Technology and a New Kind of Trade”, presented at the National
Meeting of the Association of American Geographers in San Francisco, California, 29 March – 2
April 1994.

Invited participant in the Inherit The Earth Intergenerational Symposium on the Environment

Presented a paper at the National Meeting of the Association of American Geographers in San
Diego, California, 18-21 April 1992.

Attended International Global Union Commission on the World Political Map in Prague,

Presented a paper at the Regional Meeting of the Association of American Geographers, Western

SERVICE:

Serving on the NSF Doctoral Dissertation Improvement Award Panel for the Geography and Regional
Sciences Division, Arlington, VA, first meeting on 8-9 December 2008 (2-year term of service)
Represented the University of Kansas on a Kansas National Guard-sponsored trip to Yerevan, Armenia to foster educational ties between Kansas and Armenia, 23-29 August 2008 (plus briefing meetings in Topeka)

Member, College of Liberal Arts and Sciences (KU) International Studies Task Force, Spring 2008

Graduate Studies Committee Member, Department of Geography August 2007 to present

Served on an advisory panel for NSF’s Human and Social Dynamics (HSD) competition, Arlington, VA, 9-11 May 2007

Ex-Officio member of the International Research and Scholarly Exchange Committee of the AAG as of June 2007 (2-year term)

Elected President of the Russian, Central & Eastern European and Eurasian Specialty Group of the AAG April 2007 (2-year term)

Chair, Outreach Committee, Department of Geography August 2006 – August 2007.

Co-Coordinator for the Environmental Studies Honors Program as of August 2006.

GeoClub (Geography undergraduate student organization) faculty sponsor as of September 2006.

Elected member of the Executive Committee for the Center for Russian, East European and Eurasian Studies, September 2006 and September 2007.


Elected President of the Political Geography Specialty Group of the Association of American Geographers, 2005 (2-year term)

Elected Vice-Chair of the Russian, Central And East European Specialty Group of the Association of American Geographers, 2005 (2-year term)

Appointed Chair of the International Research and Scholarly Exchange Committee of the Association of American Geographers 2005 (2-year term).

Elected Secretary/Treasurer of the Human Dimensions of Global Change Geography Specialty Group of the Association of American Geographers, 2004 (2-year term)

Elected Secretary/Treasurer of the Political Geography Specialty Group of the Association of American Geographers, 2003-2005

Elected member at large on the board of the Russian, Central And East European Specialty Group of the Association of American Geographers, 2003-2005


Appointed Executive Board Member of the Arms Control, Disarmament and International Security Program at the University of Illinois at Urbana, August 2002

Appointed member of the International Research and Scholarly Exchange Committee of the Association of American Geographers, July 2002

Guest participant in the Illinois International Career Academy high school paper presentations on the Post-Taliban Economy in Afghanistan, Urbana, Illinois, 23 February 2002


Student paper award committee member, Political Geography Specialty Group of the Association of American Geographers, 1999 to 2003

Student paper award committee member, Human Dimensions of Global Change Specialty Group of the Association of American Geographers, 2001

Director, Environmental Studies Minor (interdisciplinary, undergraduate program) at Illinois State University, spring 2000 to spring 2001

Appointed member of Illinois State University President’s Environmental Task Force beginning fall 2000

Member, Peace Studies Advisory Council at Illinois State University beginning fall 2000

Initiator and Co-organizer of the interdisciplinary colloquium series in the Department of Geography-Geology, Illinois State University: “GGGEO: Geography, Geology and Geohydrology Explorations and Observations”

Member of the following committees in the Department of Geography-Geology, Illinois State University: Advancement, Awards, By-Laws and Research, 1999-2001

Volunteer faculty moderator for a first year student learning community, “Connections”, at Illinois State University, fall 1999
Elected member of the board of the Political Geography Specialty Group of the Association of American Geographers, 1998-1999

Chair of the Ad-hoc Committee of the Political Geography Specialty Group of the Association of American Geographers, 1998-1999

Chair of the Distinguished Geography Speaker Committee, Department of Geography-Geology, Illinois State University, 1998-1999

Reviews for:  

PROFESSIONAL ORGANIZATIONS:

- Association of American Geographers
- International Studies Association
- International Geographical Union

EMPLOYMENT HISTORY:

- University of Kansas, Department of Geography and Environmental Studies Program - Current position since August 2004; Promoted to Associate Professor as of August 2007
- University of Illinois at Urbana-Champaign, Department of Geography - Tenure track position August 2001 -- August 2004
- Illinois State University, Department of Geography-Geology - Tenure track position August 1998 – May 2001
- University of Colorado Continuing Education Program, The Metropolitan State College of Denver and Front Range Community College – various part time teaching assignments 1996 - 1998

* * *
Individual Faculty Statement
James R. Shortridge

My appointment at Kansas is a traditional 40/40/20 split and I have tried to allocate my time accordingly. This balance also happens to suit my personality; I have enjoyed it over my thirty-nine years with the department.

As a young professor, my courses were aimed more at undergraduate than graduate students. This gradually changed as I acquired more MA and PhD advisees and grew more confident as a research scholar. Over the last decade or so I have been teaching one research seminar per year, a 500-level cultural class, and a 300-level survey course on North America. My fourth offering is a service class for the department—Introduction to Graduate Study (Geog. 805)—which is required of all MA candidates.

The training of graduate students is my biggest contribution to the department’s teaching mission. I advise seventeen at the moment (about a quarter of the total group) and have had as many as twenty-two. These high numbers are not by design, although I do enjoy the mentoring role and think I am good at it. Some students come because of my scholarly record, some because I am open to a wide range of thesis topics and approaches, and some because I study the Midwest and Great Plains world that is close at hand for field research. Over the years thirty-eight students have completed master’s theses under my direction and another thirty have done dissertations. When the people now in the pipeline finish, these totals should rise to forty-two and forty-four, respectively. These numbers are the largest in the department’s fifty-four-year history by a wide margin.

The quality of my teaching has been recognized several times by the university. The Mortar Board honor society named me an “outstanding educator” in both 1979 and 1997, and the Center for Teaching Excellence did the same in 2000. I won KU’s “distinguished teaching award” in 1984, and was the department’s first winner of a Kemper Fellowship for Teaching Excellence in 1999. Last year I received the Chancellor’s Cup Career Teaching Award.

On the research front, my record is strong but unconventional. I write about historical and cultural topics with a strong regional focus on Kansas and the Plains. Local research obviously fits well with the mission of a Kansas public institution, and I take pride in this role. Because my field sites are nearby, however, and because my inquiries require little money beyond the cost of gasoline and photocopying, I am not much of a contributor to the university’s cache of grant money. The college was able to pocket my salary one semester, however, when I accepted a research fellowship.

My work has been published in the quality outlets expected of professors at major research universities. This includes both the Annals of the AAG (four times) and the Geographical Review (four times), the two premier journals for a cultural/historical geographer. Two of the Geographical Review pieces have been judged among the seventy-five best ever to appear in that outlet. Since about 1988, I have directed most of
my research effort into scholarly books. Five of these are now in print with the University Press of Kansas, along with an edited volume done with my wife for Rowman and Littlefield. A sixth book with the Kansas press is currently at the copyediting stage.

My research has received considerable recognition. Besides the Geographical Review citation noted above, several articles have been reprinted. One book won the John B. Jackson Prize from the AAG and two others garnered that association’s Globe Award for Public Understanding of Geography. No other American geographer has won so many book prizes from our major professional organization. In surveys, American cultural geographers in 1998 named me one of the “most outstanding” academicians in their field. In 2004, American historical geographers did the same. Finally, in 2006, I was given the Higuchi-Endowment Association Prize for the Applied Sciences, the highest research honor in the state.

On the service front, I have tried to focus equally on professional and state/university activities, seeing them both as important to the department’s mission. For the state I am a long-time board member of the Kansas State Historical Society and helped the National Park Service to establish the Tallgrass Prairie National Preserve. For KU, I have served on several high-profile university committees, but spent much more time and effort as multiple-year chairs of the department’s graduate studies and undergraduate studies committees. As a professional geographer, I have done more than my share of manuscript reviewing and have served on the editorial boards of the Geographical Review, the Professional Geographer, the University Press of Kansas, and several other publishers. I also have been active with the AAG, capped by service as a national councillor between 2000 and 2003.
CURRICULUM VITAE

James R. Shortridge

I. Personal

My roots are six generations deep in the “burnt district” of western Missouri. Two family lines derive from upper Southerners of English and Scottish ancestry, a third from Ireland and Norway, and a fourth from southern Germany and adjacent Switzerland. Half of my ancestors favored the Confederate cause, half the Union. I was raised as a soda jerk and had aspirations to follow the pharmacist life of my father and grandfather. Then came college and the discovery of new possibilities in the study of place and place meaning. Fellow geographer Barbara Gimla and I married in 1967 and we have two daughters: Amy and Katherine.

II. Education

<table>
<thead>
<tr>
<th>Diploma</th>
<th>Pleasant Hill (Missouri) High School, 1962</th>
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<tbody>
<tr>
<td>A.B.</td>
<td>Dartmouth College, 1966 (Geography)</td>
</tr>
<tr>
<td></td>
<td>major advisor: Van H. English</td>
</tr>
<tr>
<td></td>
<td>degree cum laude with distinction in the major</td>
</tr>
<tr>
<td>M.A.</td>
<td>University of Kansas, 1968 (Geography)</td>
</tr>
<tr>
<td></td>
<td>thesis advisor: Walter M. Kollmorgen</td>
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<tr>
<td>Ph.D.</td>
<td>University of Kansas, 1972 (Geography)</td>
</tr>
<tr>
<td></td>
<td>dissertation advisor: Walter M. Kollmorgen</td>
</tr>
<tr>
<td></td>
<td>degree with honors</td>
</tr>
</tbody>
</table>

III. Honors

Phi Beta Kappa, 1966
Outstanding Educator Award (K.U. Chapter of Mortar Board), 1979 and 1997
Guggenheim Fellow, 1979-1980
University of Kansas Distinguished Teaching Award, 1984
John Brinckerhoff Jackson Prize (Association of American Geographers), 1990
Zimmerman Memorial Lecturer, Emporia State University, 1991
Principal Speaker, Porter L. Fortune History Symposium on “The New Regionalism,” University of Mississippi, 1993
Keynote Speaker, Annual Meeting of Southwestern Division of Association of American Geographers, 1996
Keynote Speaker, 45th Annual Conference on Composition and Literature, University of Kansas, 1997
Keynote Speaker, Annual Meeting of Kansas Academy of Science, Kansas State University, 1999
W. T. Kemper Fellowship for Teaching Excellence, University of Kansas, 1999
Undergraduate Teaching Award, Center for Teaching Excellence, University of Kansas, 2000
Keynote Speaker, Annual Meeting of the Middle States Division of Association of American Geographers, 2000
Globe Book Award for Public Understanding of Geography (Association of American Geographers), 2002 and 2005
George O. Carney Honorary Lecturer, Oklahoma State University, 2002
Keynote Speaker, Annual Meeting of the Great Plains/Rocky Mountain Division of Association of American Geographers, 2006
Irvin E. Youngberg Research Achievement Award in the Applied Sciences, University of Kansas, 2006 (one of four annual Higuchi-Endowment Association prizes, the highest university research honors in the state)
Named one of the 11 “most outstanding living historical geographers” (and one of the top 6 excluding retirees) in a 2004 poll of American historical geographers (Historical Geography, Vol. 34 (2006): 71-85).
Chancellor’s Club Career Teaching Award, University of Kansas, 2009

IV. Professional Organizations

American Geographical Society
Association of American Geographers
Kansas State Historical Society
Pioneer America Society

V. Positions Held

Graduate Teaching Assistant, University of Kansas 1968
Graduate Research Assistant, University of Kansas 1969
Teaching Associate, University of Kansas 1971
Instructor, University of Kansas 1971-1972
Assistant Professor, University of Kansas 1972-1977
Associate Professor, University of Kansas 1977-1984
Visiting Scholar, Dartmouth College 1979-1980
Visiting Associate Professor, Dartmouth College 1981
Acting Department Chairman, University of Kansas 1982
Professor, University of Kansas 1984-date
Associate Department Chairman, University of Kansas 1992-1994
VI. Courses Taught

A. Undergraduate
   Cultural Geography
   Cultural Geography of the United States
   Fundamentals of Geography
   Geography of Kansas and Missouri
   Geography of the United States and Canada
   Kansas and the Plains

B. Graduate
   Agricultural Geography
   Cultural Ecology
   Field Methods
   Geographic Thought
   Humanistic Geography
   Introduction to Graduate Study
   Seminars on Local Geography, American Religion, Environmentalism,
   Material Folk Culture, Cultural Vegetation, Vernacular Regions, Place
   Names, The Role of Novels in Creating Place Image, the High Plains,
   Foodways, Sense of Place, and Historical Geography

VII. Major Research Supervised

A. Dissertations

   Paul E. Phillips  (Fort Hays State University)
   An Assessment of the Validity of an East-West Cultural Dichotomy for
   Kansas (1978)

   Joseph T. Manzo  (Concord University)
   Native Perceptions of the Prairie-Plains Environment (1978)

   Gladys A. Emerson  (Northeast Louisiana University--retired)
   Tobacco Culture in a "Little Dixie" Outlier of Northwestern Missouri
   (1978)

   Kevin P. Condon  (financial consultant, Denver, Colorado)
   A Subjective Tradition in American Geography: From Geosophy to
   Geometaphysics (1981)

   Roger W. Stump  (University of Albany, SUNY)
   Changing Regional Patterns of White Protestantism in the United States,
Kent M. McGregor (University of North Texas)

Ronald V. Shaklee (Youngstown State University)
Barrier Use and Urban Territoriality (1982)

Roger A. Clouser (South Junior High School, Lawrence, Kansas)
The Ranch House in America (1984)

Robert A. Rundstrom (University of Oklahoma)
Maps, Man, and Land in the Cultural Cartography of the Eskimo (Inuit) (1987) coadvisor with George F. Jenks

Tom L. Schmiedeler (Washburn University)
Origin and Evolution of Town Forms in North-central Kansas, 1860-1900 (1990)

Craig S. Campbell (Youngstown State University)

Michael J. Handley (refugee counselor, Portland, Oregon)
The Idea of the Pacific Northwest (1996)

Cary W. de Wit (University of Alaska--Fairbanks)
Sense of Place on the American High Plains (1997)

Scott C. Roper (Castleton State College)

Steven M. Schnell (Kutztown University)

Steven V. Foulke (Ottawa University)
Shaping of Place: Mennonitism in South-Central Kansas (1998)

Amanda Rees (Columbus State University)

Michael G. Noll (Valdosta State University)
Prince Maxmilian’s America: The Narrated Landscapes of a German Explorer and Naturalist (2000)
David E. Schull (Ohio State University at Marion)
    Community Pride in American Small Towns (2002)

Soren C. Larsen (University of Missouri)
    Modernity and Sense of Place in Southside, A Rural Region in North-Central British Columbia (2002)

Langdon Smith, Jr. (Slippery Rock University of Pennsylvania)
    The Democratization of Nature: State-Park Development During the New Deal (2002)

Laura Moley McClain (Northwest Missouri State University)

Aaron K. Ketchell (The Barstow School, Kansas City)

John T. Bauer (University of Nebraska at Kearney)

Christopher W. Post (Kent State University, Stark Campus)
    In Memory: Landscape Memorialization of the Guerilla Warfare on the Kansas-Missouri Frontier (2006)

Lucius F. Hallett IV (Western Michigan University)
    The Geographies of Contemporary Food Networks in Kansas City (2007)

Henry A. Way (James Madison University)
    The Chimera of Kansas: An Exploration of Place, Politics, and Culture (2008)

Rex J. Rowley (University of Wisconsin--Platteville)
    Bright Light City: Sense of Place Beyond the Las Vegas Strip (2009)

David T. McDermott (Haskell Indian Nations University)
    The Naming, Identification, and Protection of Place in the Loess Hills of the Middle Missouri Valley (2009)

Brent J. Piepergerdes
    A Cinematic Nation: Representation, Regionalism, and the National Question in Postwar Italy (2009)
B. Theses

Joseph T. Manzo  (Concord University)
Strawberry Hill: An Ethnic Urban Neighborhood (1975)

Kevin P. Condon
The Cultural Geography of Jefferson County, Kansas: An Experiential
Approach (1975)

Kent M. McGregor  (University of North Texas)
Evaluation of Huntington's Ozone Hypothesis as a Basis for His
Cyclonic Man Theory (1975)

David M. Lee
What is Geography? (1981)

Laura G. Lunsford
Small Town Stability in the Hispanic Community of Dixon, New
Mexico (1984)

Tom L. Schmiedeler  (Washburn University)
Perceptual Regions of Lawrence, Kansas (1985)

Elizabeth Hines  (University of North Carolina--Wilmington)
Farming and Ranching in Morton County through 1915: The Historical
Geography of a High Plains Frontier (1985)

Jeffrey J. Miller  (Community College of Aurora, Colorado)
The Vernacular Pacific Northwest (1985)

Lawrence A. McGlinn  (State University of New York--New Paltz)
A Humanistic Approach to Landscape Conception and Appreciation
(1988)

Melanie K. Brown
Community Level Topophilia: The Effects of Mobility History,
Environmental Background, and Regionality (1990)

Kevin S. Blake  (Kansas State University)
Zane Grey's Impact on Images of the American West (1991)

Taylor E. Mack  (Louisiana Tech University)
Patterns and Images of Greyhound Racing in the United States (1991)
Daniel A. Gilewitch (United States Military Academy)
The Border Fence at El Paso, Texas: Symbolism, Perceptions and Effectiveness of the "Tortilla Curtain" (1992)

Cary W. de Wit (University of Alaska--Fairbanks)
Sense of Place on the Kansas High Plains (1992)

Vickie B. Long
The Airplane Bungalow: An Architectural Relic in Lawrence, Kansas (1993)

Helen Sheumaker (Miami University)
The Gravemarkers of Nicodemus, Kansas, as a Test of Black Town Isolation (1993)

Michael J. Handley
Methodological Problems of Place-Image Study (1994)

Steven M. Schnell (Kutztown University)
The Kiowa Homeland in Oklahoma (1994)

John R. Avellanet
Landscape Symbols and their Role in Establishing Sense of Place: A Case Study of Kansas (1995)

Benjamin Y. Dixon (State University of New York--Oneonta)
Ecological Impacts of Euro-American Frontier Advancement on the Kansa Indians (1996)

Amy Rork
Sense of Place in Montgomery County, Kansas: Perceptions of an Industrialized Rural Area (1997)

David E. Schul (Ohio State University at Marion)
A State-Fair View of Midwestern Food (1997)

Thomas A. Pratt
The Multicultural Mosaic in Canada: Sovereignty, Identity and Cultural Hegemony (1997)

John H. Teeple
Mary R. Gage  

John T. Bauer (University of Nebraska at Kearney)  
The Expansion of the Settlement Frontier in Illinois (2001)

Lucius F. Hallett IV (Western Michigan University)  
The Production of Jam in Southern Coastal Maine: A Sense-of-Place Study (2001)

Christopher W. Post (Kent State University, Stark Campus)  

Shawna Wright Brinson  
The Development and Preservation of Character in Downtown Lawrence, Kansas (2005)

Nathan W. Brinson  
Political, Economic, and Cultural Revival in Kansas City, Kansas (2006)

Jason M. Woods  
A Historical Geography of Kansas City’s Jazz District (2006)

Aaron H. Gilbreath  
“A Little Place Getting Smaller;” The Depopulation and Social Spatialization of Gove County, Kansas (2007)

Stephan R. Fuchs  
Migration Routes and Settlement Patterns of German Immigrants in Douglas County, Kansas, 1860-1880 (2007)

Christopher J. Fertig  
Vail, Colorado, as a Voluntary Culture Region (2008)

Thomas Hornbeck  
Historical Geography of the Catholic Church in Kansas City, Missouri: 1822-1930 (2008)

Jennifer L. Brackhan  
Restaurant Growth in Lawrence, Kansas, 1950 to 2007 (2009)

Stephanie L. Day  
C. Undergraduate Honors Papers

Bryan M. Iwamotu
The Distribution of the Episcopal Church in the United States (1974)

Greg G. Cole
Stone Fences in Douglas County, Kansas (1975)

Jeffrey J. Schloesser
Boomtown Weston: The Rise and Fall of a Frontier Community (1976)

Janet R. Ringer
Ethnic Landscapes in Topeka, Kansas (1978)

Lisa E. Chismire
The Role of the Thames River in Our Mutual Friend (1979)

Rebecca R. Domermuth
Perception of Environmental Quality in the United States (1979)

Cynthia A. Dunham
Diffusion of Bottle Bill Legislation in the United States (1983)

Jefferson S. Rogers (University of Tennessee--Martin)
The Impact of Interstate 70 on Towns in Western Kansas (1986)

Taylor E. Mack (Louisiana Tech University)
Patterns of Church-Related Higher Education in the United States (1989)

Chris Scafe

Kevin Spradlin
A Regional Image of Oklahoma Based on New York Times Articles from 1894 to 1910 (1992)

Peter McCormick (Fort Lewis College)
The Secessionist Movement in Southwestern Kansas (1993)

Wendy Kirkpatrick

Brent Piepergerdes
Deciphering Images in Southeast Kansas: Examples of How the Cultural
Landscape Reflects, Neglects, and Distorts the Historical Record (1997)

Corey Johnson  (University of North Carolina--Greensboro)
Hanover, Kansas: The Life and Times of a German Railroad Town (1998)

Matthew Duran
Viewing the Mexican-American Borderlands: A Reception Study
Examination of John Sayle’s Lone Star (1998)

Shawna K. Wright
An Inside Look: The Ups and Downs of Hailing from “Junktown” (2000)

David M. Mitchell
The Need for Speed: Historical Justifications for Embracing High-Speed Rail (2001)

Blake M. Huff
Spatial Perceptions of Gay Friendliness in the United States (2005)

VIII. Major Professional Service

Association of American Geographers
Member, Local Arrangements Committee, 1971-1972
Member, Nominating Committee, 1996-1997
President, Historical Geography Specialty Group, 1998-2000
Member, Research Grants Committee, 1999-2002
Member, Archives and Association History Committee, 2000-2003
National Councillor, 2000-2003
Member, Census Advisory Committee, 2002-2003
Member, Globe Award Selection Committee, 2003-2004
Member, Nominating Committee, 2008-2009
Member, John Brinkerhoff Jackson Prize Committee, 2008-date

University of Kansas
Member, Steering Committee, American Studies Program, 1977-1978 and 1991-date
Member, College Committee on the Budget, 1986-1989
Member, University Committee on Named and Distinguished Professors, 1996-1998
Member, University Senate Library Committee, 1997-2000
Member, Higuchi-Endowment Association Research Awards Selection Committee, 2007-2008
Advisory Boards
Coronet Instructional Media (Chicago), a series of filmstrips on the Great Plains, 1975-1977
Kansas Folk Arts Commission (Kansas State Historical Society and other agencies), 1982-date
Tallgrass Prairie National Preserve, Sustainable Management Panel (National Park Service), 1998-date
“Barn Again!: Celebrating an American Icon” (a traveling exhibition of the Smithsonian Institution), Scholarly Consultant for the Kansas tour, 1999-2000
Max Kade Center for German-American Studies (University of Kansas), 2000-2004

Boards of Directors
Woodrow Wilson Center (Fellowship Review Board), 1990-2000
Kansas State Historical Society, 1997-date

Editorial Boards
Material Culture: Journal of the Pioneer America Society, 1983-1986
University Press of Kansas, 1985-1989
Professional Geographer, 1994-1997
Historical Geography, 1999-2004
The American Midwest: An Interpretive Encyclopedia (Indiana University Press), 1999-2006
The North American Geographer, 2000-date
Geographies of Religions and Belief Systems, 2004-date

IX. Publications

Books


The Taste of American Place: A Reader on Regional and Ethnic Foods (Lanham, Maryland: Rowman and Littlefield, 1998), 298 pages (with Barbara G. Shortridge).


Major Articles and Book Chapters


Encyclopedia Contributions and Other Brief Studies


"What Cemeteries Tell Us," invited contribution to Middle Border, a newsletter from Johnson County Community College's Center for Local History, Vol. 3, No. 1 (Fall, 1985), p. 11.


"Kansas," invited revision of an article for *Microsoft Encarta Encyclopedia* (Redmond, Wash.: Microsoft Corporation, 1996), CD-ROM.


“Walter Martin Johannes Kollmorgen,” invited contribution to From Lindley, the Alumni Newsletter of the Department of Geography, University of Kansas, 2008-2009, pp.5-6.

Book Reviews


"Bibliography of Geography; Part II: Regional; Vol. 1. The United States of America," by Chauncy D. Harris, American Studies, Vol. 26, No. 2 (Fall, 1985), p. 121.


"Guide to Kansas Architecture," by David Sachs and George Ehrlich,


Terry A. Slocum
Curriculum Vitae, March 2010

Department of Geography
University of Kansas
Lawrence, Kansas 66045
Phone: 785-864-5146
E-mail: t-slocum@ku.edu

I. EDUCATION

Ph.D. (1980) University of Kansas
  Major field of study: Cartography
  Secondary field: Quantitative Methods

M.A. (1976) State University of New York at Albany
  Areas of Study: Cartography and Quantitative Methods

  Major: Geography   Minor: Mathematics

II. ACADEMIC EMPLOYMENT

Chair, Department of Geography, University of Kansas       2003-present
Associate Professor, University of Kansas                  1986-present
Assistant Professor, University of Kansas                  1981-1986
Assistant Professor, University of Maryland                1980-1981
Consultant to Robert Aangeenbrug, Chair, 4th           1978-1979
  International Conference on Computer-Assisted
  Cartography (AUTO-CARTO IV)
Systems Analyst for GBFDIME project, Lawrence, Kansas    1978
Teaching Assistant, University of Kansas                   1977-1978
Assistant for University of Kansas Cartographic Services  1976-1977
Teaching and Research Assistant in cartography,           1974-1976
  State University of New York at Albany

III. GRANTS

National Science Foundation, $1,060,747, 2001-2005.
  “Extending Scientific Inquiry through Geographic Information
  Systems” (with Joseph Heppert (PI), Dennis Lane, Thomas Baker,
  and Steven Case).

US Department of State Bureau of Educational and Cultural Affairs,
$142,138, 2000-2004. “Partnership between the University of
Kansas and the University of Zambia: Enhancing Technological
Capabilities in Environmental Science Teaching and Research,”.
  (Senior Personnel with Garth Myers (PI) and other faculty at KU).

National Center for Geographic Information and Analysis, $3000, 1999.
  “A Preliminary Evaluation of MapTime”

KU Research Development Fund, $40,577.82, 1999.
  Project to incorporate a water balance model with the Green Report
  (http://maps.kansasgis.org/kars/) (with Johan Peddem (PI), David
  Bennett, Ed Martinko, and Kevin Price).
"Enhancing Analytical and Physical Geography Curriculum at the University of Kansas" (with Kevin Price (PI) and others).

"Exploring Time-Based Data for Choropleth Maps."

National Science Foundation, $50,000, 1987-1990.  
"Developing and Analyzing an Information System for Choropleth Maps."

New Faculty Research Grant, $4500, 1982.  
"Regionalization on Automated and Non-Automated Choropleth Maps."

IV. PUBLICATIONS

Books


Articles and Book Chapters Published (* refereed; + invited)


1994  Terry A. Slocum. "Visualization Software Tools," in *Visualization in Modern Cartography*, eds. Alan M. MacEachren and D.R. Fraser Taylor. Oxford: Pergamon Press, pp. 91-122. (Numerous co-authors were involved, but I was the lead author and editor.)


Conference Proceedings


1982  Derek Thompson and **Terry A. Slocum.** "A Geographic Information System for Political Redistricting in Maryland," *Proceedings of Applied Geography Conferences*, 5, pp. 73-87.

In-House Departmental Publications


Book Reviews


4


V. PRESENTATIONS

Papers Presented


2009 Terry A. Slocum. "History of Thematic Cartography, 1900-2000," Department of Geography Brownbag Series, University of Kansas, Lawrence, KS.


2000 Terry A. Slocum. "Cognitive and Usability Issue in Geovisualization," Commission on Visualization, International Cartographic Association, Melbourne, Australia, June 14-16 (This presentation involved a series of lectures and discussions over a two-day period.)

1999  **Terry A. Slocum.** "Cognitive Issues in Visualization", Commission on Visualization, International Cartographic Association, Ottawa, Canada, August 22-23 (This presentation involved a series of lectures and discussions over a two-day period.)


1994  **Terry A. Slocum.** "Using Visual Basic to Teach Concepts of Visualizing Spatial Data," Department of Geography, University of South Carolina.

1993  **Terry A. Slocum, John C. Davis and Stephen L. Egbert.** "Developing Software for Exploring Temporal Spatial Data," GIS/LIS '93, Minneapolis, MN.


1988  **Terry A. Slocum, Stephen L. Egbert, Mary Catherine Prante, and Susan H. Robeson** "Developing an Information System for Choropleth Maps," Third International Symposium on Spatial Data Handling, Sydney, Australia.

1988  **Terry A. Slocum.** "Developing an Information System for Choropleth Maps," Association of American Geographers, Phoenix, AZ.


1987  **Terry A. Slocum.** "Developing an Information System for Choropleth Maps," Department of Geography, University of Kentucky.


1980 **Terry A. Slocum.** "Predicting Visual Clusters on Graduated Circle Maps," Association of American Geographers, Louisville, KY.


Poster Presentations


1985 Gregory A. Plumb and **Terry A. Slocum.** "Improving the Visual Quality of Dot Matrix Printer Maps," Association of American Geographers, Detroit, MI.

Invited Discussant

1987 **Terry A. Slocum.** For the session "Recent Research on the Cartographic Use of Color," Association of American Geographers, Portland, OR.

VI. COURSES TAUGHT

Undergraduate

104 - Introductory Physical Geography

Upper-division Undergraduate and Graduate

316 - Introduction to Quantitative Methods in Geography (basic use of statistics in geography through simple correlation and regression)

358 - Principles of Geographic Information Systems (an introduction to the principles of GIS)

514 - Visualizing Spatial Data (an analysis of techniques for visualizing spatial data and their implementation in a programming language)

516 - Applied Multivariate Analysis in Geography (the use of multivariate data analysis methods geography)

517 - Data Handling and Map Symbolization (focuses on the quantitative and perceptual aspects of map symbolization)

Graduate Courses

806 Basic Seminar (largely MA thesis proposal development)
VII. RESEARCH SUPERVISED

Dissertation Committees Chaired


Karen Trifonoff, 1994, "Using thematic maps in the early elementary grades."

Stephen L. Egbert, 1994, "The design and evaluation of an interactive map exploration system."

Masters Thesis Committees Chaired


Yadav-Pauletti, Sunita, 1996, "MIGMAP, A data exploration application for visualizing U.S. Census migration data."

Douglas Greenfield, 1994, "Animating point symbols for cartographic display."

Linus L. Smith, 1988, "Improving the cartographic quality of geomorphic lines displayed on low-resolution computer screens."

Stanley J. Gerber, 1987, "Assessing the value of shaded relief to road map users."

Steven R. Miller, 1986, "Local context effects on obtaining tabular information from choropleth maps."

Masters Non-thesis Committees Chaired


VIII. PROFESSIONAL SERVICE

Editorial Work

Member, Editorial Board, Cartography and Geographic Information Science, 2006-present.


Served on a committee to select the best article appearing in the publications of the American Congress on Surveying and Mapping (1982-1985).

Organizational Officer


Vice President, Cartography and Geographic Information Society, 2010.

Workshops and Short Courses Taught


"Map Display for GIS", with Stephen L. Egbert, for the GRAIL spring workshop series, University of Kansas, 1991.


Miscellaneous

IX. DEPARTMENTAL SERVICE

Chair, 2003-present.
Graduate Director, 1993-2002.
Member, Committee to evaluate in-house GRF proposals, 1994
Chair, Search Committee for Computer Technician, 1991
Chair, Staff Committee (1990-1991)
Chair, Student Affairs Committee, 1989-90
Search Committee for GIS, 1988-1989
Search Committee for GIS/Physical, 1987-1988
Search Committee for Remote Sensing/GIS, 1987
Co-Chair, Student Affairs Committee, 1988-1989
Chair, Student Affairs Committee, 1986-1988
Student Affairs Committee, 1985-1986
Computer Committee, 1985-1986
Staff Committee, 1981-1985
Ad Hoc Cartographic Services Committee, 1983
Cartographic Services Projects Committee, 1982

X. UNIVERSITY SERVICE

Planning Committee for the Center for Analysis of Data, 2007-2008.
CGS (Committee on Graduate Studies), 2001-3, Chair 2002-2003.
First-Level Review Committee, General Research Fund 1990-1991
CGS (Committee on Graduate Studies), 1988-1991; Chair 1989-1990
CUSA (Committee on Undergraduate Studies and Advising), 1985-1987
Graduate Council and the Standing Committee on
Graduate Faculty Appointments, 1982-1985
Advised for summer orientation, 1983-1984

XI. AWARDS

Teacher Appreciation Award, Center for Teaching Excellence (CTE), 2007.
Teacher Appreciation Award, Center for Teaching Excellence (CTE), 1998.

XII. Membership in Professional Organizations

Association of American Geographers
Canadian Cartographic Association
Cartography and Geographic Information Society
North American Cartographic Information Society
The British Cartographic Society
XIII. References

Pete Shortridge  
Department of Geography  
University of Kansas  
Lawrence, KS 66045

Johannes Feddema  
Department of Geography  
University of Kansas  
Lawrence, KS 66045

Stephan Egbert  
Department of Geography  
University of Kansas  
Lawrence, KS 66045

Keith Clarke  
Department of Geography  
University of California  
Santa Barbara, California 93106-4060
DONNA F. TUCKER

Current Addresses

Office:  Department of Geography
1475 Jayhawk Blvd.
213 Lindley Hall
University of Kansas
Lawrence, Kansas 66045
(785) 864-4738
(785) 864-5378 (fax)

E-Mail: dtucker@ku.edu

Education

Dissertation:  The Anatomy of Heavy Rainfall Over

M.S. Atmospheric Science, Colorado State University, 1982.
Thesis:  April Circulation over the Tibetan Plateau:
Studies with a Primitive Equation Model.

B.S. Atmospheric Science, Cornell University, 1980.

Professional Experience

Associate Professor, Department of Geography, University of
Kansas, 2003- present

Associate Professor, Department of Physics and Astronomy,
University of Kansas, 2000-2003.

Assistant Professor, Department of Physics and Astronomy,
University of Kansas, 1994-2000

Lecturer, Department of Physics and Astronomy, University
of Kansas, 1993-1994

Assistant Professor, Department of Atmospheric Sciences,

College Assistant Professor, Department of Earth Sciences, New Mexico State University, 1989.

Instructor, Department of Earth Sciences, New Mexico State University, 1988.


Teaching Experience:

Introductory                                Advanced Undergraduate/Graduate

Severe and Unusual Weather                  Cloud Physics and Dynamics
Computer Programming in Atmospheric Sciences Boundary Layer Meteorology
Mountain Meteorology                          Dynamic Meteorology I
Introduction to Atmospheric Science              Dynamic Meteorology II
Introduction to Meteorology                  Advanced Synoptic Meteorology
                                           Synoptic Meteorology
                                           Microclimatology
                                           Aviation Meteorology
                                           (Internet)

Graduate

Atmospheric Dynamics
Mountain Meteorology
Numerical Weather Prediction
General Circulation, Colorado State University, TA, 1983

Professional Affiliations

American Meteorological Society
American Geophysical Union
National Weather Association
Association of American Geographers
Sigma Xi
Sigma Pi Sigma

Professional Service

President, El Paso-Las Cruces Chapter of the American Meteorological Society, 1989-1990


Nominating Committee, 1992-1994, National Weather Association

Board of Meteorological and Oceanographic Education in the Universities of the American Meteorological Society, since 1994; Chair of committee on the bachelor's degree in meteorology or atmospheric science 1997-1999.

National Science Foundation, Lower Atmosphere Division, Committee of Visitors, 1995


Committee of Judges for Undergraduate Awards, American Meteorological Society, 2001-2005, currently chair

Unidata Users Committee, 2002-2005


Selection committee, Unidata Equipment Awards, 2003, 2004

National Weather Association Aviation Meteorology Committee 2006-present

NSF Review Panel, Unidata, June 2008

Grants Received:


COMET/UCAR, "Eta model performance for warm season heavy rainfall events across the Central United States", 8/94 - 8/95, $4909.

NSF, "Development of a computer-based synoptic and mesoscale meteorology laboratory", 10/94 - 9/95, $20,000 (matched by KU).

University of Kansas/GRF "Initiation of Mesoscale Convective Complexes", 1/1/95 - 6/30/96, $5000.


University of Kansas/GRF "Effect of a Local Moisture Source on the Precipitation Produced by Convective Systems", 7/1/96-6/30/97, $9,000.

National Center for Atmospheric Research, Orogenic Mesoscale Convective Systems, 7/1/96-8/31/98, 175 GAU of computer time

NSF, "Summer Plateau Circulation Systems of Western North America", 5/1/96-11/30/97, $75,000.

University of Kansas/GRF " Effect of Wind Regimes on the Initiation Point of Large Convective Systems", 7/1/97-6/30/98, $4,281.

Wolf Creek Nuclear Operating Corporation, Compilation of a Set of Site-Specific Screening Criteria to be Used for Meteorological Data Verification and Validation, 7/15/97-1/1/98, $3,783.
University of Kansas/GRF, Aviation Weather Hazard Characterization and Verification, 7/1/99-6/30/00, $5000.


COMET/UCAR, “Terminal Area Forecasts for Kansas City”, 7/1/99-6/30/01, $60,888.

NSF, “New Directions for a Meteorology Laboratory in Research and Education”, 11/1/99-10/31/00, $10,500 (matched by KU).


Sprint-Nextel, “Robust Wireless Mesh Networking Research: Extension to 23GHz” 10/15/2007-10/14/2008, $140,000

Invited Presentations

"Numerical Model Forecasts of Convective Orographic Precipitation" seminar presented at the Program for Regional Observing and Forecasting Services (PROFS), on 22 October 1986.

"Moisture Convergence and Convective Storms in Complex Terrain" seminar presented at New Mexico Institute of Mining and Technology, Socorro, NM, 25 January 1990.


"Women in Science" presented jointly with Holly Harris and Janet Seger to the Philosophy and History of Science Forum at the University of Nebraska at Omaha, April 3, 1992.

"Orographic Influence on Precipitation in South Central New Mexico" presented to Geography Department, University of Kansas, Feb. 2, 1994.


"Forecasting Heavy Precipitation using the ETA Model and GEMPAK", presented to the COMET Cooperative Regional Workshop, St. Louis. MO Nov. 12, 1996.


"Will El-Nino Bring Floods to Kansas this Spring?" Presented to the Kansas Society of Civil Engineers, Emporia, KS. Jan. 8, 1998

"The Bachelor’s Degree in Atmospheric Science", Presented at the 11th Meeting of the Heads and Chairs of Atmospheric Sciences Programs

"What is a Monsoon?" Presented at Indian Institute of Technology, Kanpur, India, Jan. 4, 1999.


"Summer Convective Precipitation Patterns in the Western United States", Presented at CSIRO, Aspendale, Australia, May 29, 2000
"High Plains Thunderstorms: The Rocky Mountain Connection"  
Presented at the University of Missouri - Columbia, March 14, 2001

"Initiation of Thunderstorms in the Rocky Mountains".  
Presented at Western Michigan University, April 8, 2004


"Thunderstorm Initiation in the Rocky Mountains: A Case Study".  Expanding the Use of Models as Educational Tools in the Atmospheric and Related Sciences, Unidata, UCAR, Boulder CO, Jul. 10-14, 2006

"Causes of preferred places for thunderstorm initiation in the mountainous regions" presented at State Key Laboratory of Severe Weather, Chinese Academy of Meteorological Sciences, Beijing, China, May 21, 2007.

"Thunderstorm Initiation in the Rocky Mountain Region" presented to the Department of Geography, University of Oklahoma, Feb. 27, 2008.


Refereed Publications


Marotz, G.A., R.W. Baldauf, D.F. Tucker, D.D. Lane, and R.E. Carter, 2000: Distributions of PM$_{2.5}$ and selected metal constituents in a rural area containing several hazardous waste incinerators. 93rd Annual Meeting of the Air and Waste Management Association, Salt Lake City, UT.


Other Publications

Tucker, D.F. and E.R. Reiter 1986: A numerical model for forecasting topographically induced rainfall. Preprints,


Tucker, D.F., 1992: The use of cumulant methods to delineate diurnal precipitation regimes. Preprints, 12th Conference...


Departmental Review Statement

Cornelis van der Veen

The primary objective of my research is to understand the role that ice sheets and glaciers play in the climate system: how ice masses are affected by climate change, and how ice sheets affect local and global climate. In particular, my research focuses on fast-moving ice streams in Antarctica and outlet glaciers in Greenland, as well as tidewater glaciers in Alaska. For many of these glaciers, rapid changes have been observed (both in the past and present), but the causes for these changes are not well understood. My approach is to apply quantitative analyses on multiple data sources to constrain controls on the dynamical behavior of glaciers, and to develop quantitative models (analytical, statistical, or numerical) to describe glacier behavior. I conveyed the importance of close interaction between data gathering and analysis and rigorous model development in my textbook “Fundamentals of Glacier Dynamics.” At the same time, it is important to take a broad view and recognize that different disciplines have to be included if we want to address such questions as “what is the current state of balance of the polar ice sheets and can we predict their future contribution to global sea level?” This philosophy is strongly reflected in the textbook “Ice Sheets and Climate” that Hans Oerlemans and myself wrote while I was a PhD student at the University of Utrecht.

The primary approach to understanding glacier dynamics is through the so-called “force-budget technique” developed by Ian Whillans and myself in the late 1980s, and published as a three-part series in the Journal of Glaciology in 1989. This technique is based on a different approach to solving Newton’s second law of motion, which states that forces acting on a section of glacier must sum to zero (accelerations being negligible in glacier flow). Full stresses are partitioned into a lithostatic component associated with the action of gravity, and resistive stresses that oppose this action. The main advantage of this approach is the distinction that is made between various physical processes controlling glacier flow. Consequently, the implications of omitting one or more terms in the balance equations becomes clearer than when the usual form involving deviatoric stresses is considered. A shorter tutorial, “Modelling land-ice dynamics” appeared in the book edited by Bamber and Payne (2004).

Another focus of my research is glacier mass loss through the calving of icebergs at floating and grounded termini. Iceberg calving accounts for about half the ice loss in Greenland and virtually all mass loss in Antarctica, yet processes controlling the rate of iceberg production, as well as the rapid break-up of ice shelves, are not well understood. For the 1996 analysis of tidewater calving I inspected data from Columbia Glacier and proposed the “height-above-buoyancy” model for calving. In an effort to develop a theoretical foundation for this heuristic model, two paper published in Cold Regions Science and Technology (1998) adopted the fracture mechanics approach to model penetration depth of surface crevasses and how water accumulating in these crevasses allows these fractures to penetrate the full ice thickness as well as to investigate conditions that permit bottom crevasses to reach up into a glacier. More recently, I applied this approach to model the rapid drainage of surface meltwater lakes to the glacier bed. In collaboration with Faezeh Nick (now at the Free University, Brussels) we conducted numerical model simulations on the advance and retreat of calving glaciers.
and investigated how model results are affected by the calving criterion prescribed as boundary condition. This modeling is currently being extended to Greenland outlet glaciers.

It has become increasingly clear over the past decade or so that to better understand glacier behavior, a more inter-disciplinary approach is needed that combines advanced remote-sensing techniques, traditional fieldwork, and theoretical and numerical modeling. Consequently, I foster relations with scientists in different disciplines for our mutual benefit and to maximize research potential. While my research is considered by some to be rather theoretical, it is very important to consider that my research is data-driven, and that my models are validated by observational data. This requires close interaction with the remote-sensing community and others to ensure that appropriate data are collected in places where it is needed and to become fully aware of the limitations inherent in any data set. In particular, the opportunity to collaborate with a diverse group of scientists, engineers, and technicians at the Center for Remote Sensing of Ice Sheets (CReSIS) was the primary motivation for moving to the University of Kansas. CReSIS is an NSF-funded science and technology center involving six universities and several international partners. This collaborative environment has been very rewarding to me and is opening up new directions for my research.

As instructor my objective is to engage students in the learning process, and to help them turn into lifelong learners. In the classroom I try to create an environment that promotes interactions between students and instructor and that encourages students to develop problem-solving skills and critical thinking. While there is a certain amount of basic knowledge and facts that students should know, it is much more important to me that students gain the confidence and skills to explore science issues and that they can find answers for themselves. To promote this independent thinking, I usually assign individual or small group (2-3 students) projects where students explore in more detail an issue or question of their own choosing related to the topic of the class. This forces students to conduct independent research, and present their results to their peers and also generates more interest in the topic than the usual lecture format. Moreover, what I find lacking in many students is the ability to give succinct and organized presentations, as well as writing research-oriented papers. Through projects, students not only learn how to conduct research, but also how to convey their results and findings to an audience less familiar with the specific subject matter. Other methods I use to increase student participation include discussion of assigned readings based on a brief summary given by one of the students, asking questions that challenge conventional wisdom, or giving impromptu “five minutes” tests where students are given a short period of time to answer a question or come up with a solution to a problem, that are then discussed in class. Whatever the topic of a particular class, I try to show students how the material relates to their everyday lives and demonstrate why the topic is relevant. For example, in Spatial Statistics we used census data from the Kansas City Metro Area to explore spatial patterns and trends. Similarly, recent news stories, such as the break up of an Arctic ice shelf, reinforce why we study glaciers and ice sheets.
C. J. VANDER VEEN

PROFESSOR, DEPARTMENT OF GEOGRAPHY

UNIVERSITY OF KANSAS

Education:

1986 Ph.D., State University of Utrecht, Physics
   Thesis topic: “Ice sheets, atmospheric CO\textsubscript{2} and sea level”.

1982 M.S., (“doctoraal”) State University of Utrecht, Physical Oceanography and Meteorology.
   Thesis topics: “The energy budget of the tidal currents in the southern North Sea” and
   “Numerical modelling of the ocean mixed layer in shallow seas with tidal friction”.

1978 B.S., (“kandidaats”) State University of Utrecht, Physics.

Positions held:

2009-present Professor, Department of Geography, University of Kansas

2006-2009 Associate Professor, Department of Geography, University of Kansas

2003-2006 Visiting Associate Professor, Department of Geological Sciences, The Ohio State University

1999 Interim Director, Byrd Polar Research Center, The Ohio State University

1997-2006 Research Scientist, Byrd Polar Research Center, The Ohio State University

1992-2006 Adjunct Assistant Professor, Department of Geography, The Ohio State University.

1990-1997 Senior Research Associate, Byrd Polar Research Center, The Ohio State University.

1987-1990 Research Associate, Byrd Polar Research Center, The Ohio State University.


1982-1986 Ph.D. student at the State University of Utrecht.
Service:

2010 Chief Scientific Editor for the Annals of Glaciology. Proceedings of the IGS symposium on “Earth vanishing ice” to be held in Columbus, OH (September)

2009 Co-organizer Summer School on “Ice sheet models for the 21st Century” held in Portland, OR (August 3-14).

2008 Co-convenor Workshop on “Improving Ice-Sheet Models” held in St. Petersburg, Russia (July 5-7, 2008).

2008 Member of the NASA ROSES Cryosphere proposal review panel.

2006 - present Chair SCAR Expert Group on Ice Sheet Mass Balance and Sea Level (ISMASS).

2006 Co-convenor AGU Fall Meeting session C14, “Advances in observations of ice sheets and glaciers: mass balance and beyond” held in San Francisco, California (December, 2006).

2005 Co-convenor AGU Fall Meeting session C41 “The Dynamics of Glacier System Response: tidewater glaciers and the ice streams and outlet glaciers of Greenland and Antarctica” held in San Francisco, California (December, 2005).


2003 - present Member of the Publications Committee of the International Glaciological Society.


2000 Member of the NSF Polar Glaciology Program Antarctic proposal review panel.


1999 Interim Director, Byrd Polar Research Center.

1999 - 2006 Editor Polar Geography.


1996 - 2003 Chair of the Executive Committee of the Byrd Polar Research Center.

1994 Member of the NSF Polar Glaciology Program Antarctic proposal review panel.

1994 Associate editor for the Annals of Glaciology, Vol. 21, Proceedings of the IGS symposium on “The Role of the Cryosphere in Global Change”, held in Columbus, Ohio (August 7-12, 1994).

1994 Member of the local organising committee for the IGS symposium on “The Role of the Cryosphere in Global Change”, held in Columbus, Ohio (August 7-12, 1994).
1985 Main organizer of a three-day workshop on “The dynamics of the West Antarctic Ice Sheet” held in Utrecht (May 6-8, 1985).

1984 - 1987 Member, Special Committee, reporting to the Dutch government on the possible effects of a CO₂-induced climatic warming.

Field experience:

6 / 2004 Glacial geology fieldwork near the ice margin, Kangerlussuaq, West Greenland (Byrd Polar Research Center and University of Illinois at Chicago expedition)

7 / 2003 Glacial geology fieldwork near the ice margin, Jakobshavn Isbrae, West Greenland (Byrd Polar Research Center expedition).


5 - 6 / 1987 Glaciology fieldwork in Central Greenland (Byrd Polar Research Center expedition).


5 - 6 / 1980 Member of two, two-week expeditions with the Dutch oceanographical research vessel Tyro, to collect data for M.S. research.

5 / 1979 Joined a one-month cruise of the Dutch weather ship to the northern Atlantic Ocean to perform oceanographical observations.

Courses taught (University of Kansas):

Spring 2010 Topics in Environmental Studies: Climate change in Greenland and the Arctic
ENVR 720 (3 credit hours) (together with David Braaten, Sharon Billings, and Joane Nagel)

Spring 2010 Principles of Physical Geography
Geography 104 (3 credit hours)

Fall 2009 Geography of the Energy Crisis
Geography 556 (3 credit hours)

Spring 2009 State of the Planet
Geography 531/731 (3 credit hours)

Spring 2009 Principles of Physical Geography
Geography 104 (3 credit hours)

Fall 2008 Glaciers and Landscape
Geography 332 (3 credit hours)

Summer 2008 Teaching Climate & Cryosphere
Geography 731 (3 credit hours) (workshop for teachers)

Spring 2008 Understanding Climate Change Science
Geography 531/731 (3 credit hours) (together with Johannes Feddema)
Spring 2008  Advanced Geostatistics  Geography 716  (3 credit hours)
Fall 2007  Geography of the Energy Crisis  Geography 556  (3 credit hours).
Spring / Summer 2007  Introduction to Glacier Dynamics  Geography 531  (3 credit hours) (webcast to the University of Stockholm, with auditing students at Penn State, Ohio State University and the University at Buffalo).
Spring 2007  Advanced Dynamic Meteorology  ATMO 660  (3 credit hours).
Fall 2006  Glaciers and Landscape  Geography 531  (3 credit hours).

Courses taught (Ohio State University):
Spring 2006  Glaciers and Pleistocene Geology  Geological Sciences 650  (5 credit hours)
Winter 2006  Fueling our economy after Peak Oil  Arts and Sciences 137.11  (2 credit hours) (together with Garry McKenzie)
Winter 2006  Global change and sustainability in the Earth System  Geological Sciences 663  (5 credit hours) (together with Garry McKenzie and Lonnie Thompson)
Fall 2005  Sustainability and Peak Oil: exploring pathways for our future  Geological Sciences 694  (3 credit hours) (together with Garry McKenzie)
Fall 2005  Earth Systems I: Geologic Environment  Geological Sciences 100N  (5 credit hours)
Spring 2005  Glaciers and Pleistocene Geology  Geological Sciences 650  (5 credit hours)
Winter 2005  Computational Geology  Geological Sciences 245  (5 credit hours)
Fall 2004  Earth Systems I: Geologic Environment  Geological Sciences 100N  (5 credit hours)
Fall 2004  Quaternary and Precambrian glacial deposits of the central Great Lakes  Geological Sciences 850  (3 credit hours – 6 day fieldtrip) (together with Garry McKenzie)
Spring 2004  Earth Systems I: Geologic Environment  Geological Sciences 100N  (5 credit hours)
Winter 2004  Computational Geology  Geological Sciences 245  (5 credit hours) (together with John Olesik)
Winter 2004  Glaciers and Pleistocene Geology
Fall 2003  Seminar in Geophysics
Spring 2003  Global Climate and Environmental Change: Individuals Matter
Fall 2001  Glaciers and Pleistocene Geology
Spring 2001  Geographical Analysis II
Winter 2001  Geographical Analysis I

Publications:


1 Published in 2006
2 Published in 2003
3 Published in 2002
<table>
<thead>
<tr>
<th>Year</th>
<th>Authors</th>
<th>Title</th>
<th>Journal, Volume(Issue)</th>
<th>Pages</th>
</tr>
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<tbody>
<tr>
<td>2000</td>
<td>Van der Veen, C.J.,</td>
<td>Fourier and the greenhouse effect.</td>
<td>Polar Geography, <strong>24</strong>(2)</td>
<td>132-152</td>
</tr>
<tr>
<td>1999</td>
<td>Van der Veen, C.J.,</td>
<td>Crevasses on glaciers.</td>
<td>Polar Geography, <strong>23</strong>(3)</td>
<td>213-245</td>
</tr>
<tr>
<td>1999</td>
<td>Van der Veen, C.J.,</td>
<td>Evaluating the performance of cryospheric models.</td>
<td>Polar Geography, <strong>23</strong>(2)</td>
<td>83-96</td>
</tr>
<tr>
<td>1999</td>
<td>Van der Veen, C.J.,</td>
<td>Sea level forecast build on hot air but no science.</td>
<td>Polar Geography, <strong>23</strong>(1)</td>
<td>1-11</td>
</tr>
<tr>
<td>1999</td>
<td>Van der Veen, C.J., I.M. Whillans and A.J. Gow</td>
<td>On the frequency distribution of net annual accumulation at the South Pole.</td>
<td>Geophysical Research Letters, <strong>26</strong></td>
<td>239-242</td>
</tr>
<tr>
<td>1998</td>
<td>Van der Veen, C.J.,</td>
<td>Fracture mechanics approach to penetration of bottom crevasses on glaciers.</td>
<td>Cold Regions Science and Technology, <strong>27</strong></td>
<td>213-223</td>
</tr>
<tr>
<td>1998</td>
<td>Van der Veen, C.J.,</td>
<td>Fracture mechanics approach to penetration of surface crevasses on glaciers.</td>
<td>Cold Regions Science and Technology, <strong>27</strong></td>
<td>31-47</td>
</tr>
</tbody>
</table>

\[4\] Published in 2001

\[5\] Published in 2000


**In Press:**

**In Review:**


Nick, F.M., C.J. van der Veen, A. Vieli and D.I. Benn, A physically based calving model applied to marine outlet glaciers and implications for their dynamics. *Journal of Glaciology.*

**Books:**


**Book chapters:**


Non-refereed publications:


1997 Van der Veen, C.J., Letter to the Editor: California traffic has been making kinematic waves since fifties. Physics Today, 50(10), 140-141.


Abstracts:


Van der Veen, C.J., Polar ice sheets and global sea level: how well can we predict the future? *EOS*, 81, Fall Meeting Supplement, Abstract U62A-09.

Van der Veen, C.J., Controls on the position of iceberg calving fronts. *EOS*, 81, H51E-10.


**Internal Reports:**

Van der Veen, C.J., *Oil’s History of Booms and Busts: Towards the Ultimate Downturn*. BPRC Report No. 21, Byrd Polar Research Center, The Ohio State University, Columbus, Ohio, 46 pp.


1995 Van der Veen, C.J., Controls on calving rate and basal sliding: observations from Columbia Glacier, Alaska, prior to and during its rapid retreat, 1976-1993. BPRC Report No. 11, Byrd Polar Research Center, The Ohio State University, Columbus, Ohio, 72 pp.


Grants received:

2009 Leuschen, C.J. (PI), D.A. Braaten, S.P Gogineni, S.A. Seguin, and C.J. van der Veen (co-PIs), MRI: Development of an anechoic chamber and instrumentation for remote sensing of polar regions and transportation interdisciplinary research and education. NSF-ARC, $1,374,617 (5 years).

2008 Leuschen, C.J. (PI) and C.J. van der Veen (co-PI), Collaborative Research: Subglacial water intrusion in Greenland. NSF-ARC, $161,016 (2 years).

2007 Van der Veen, C.J. (PI), Collaborative Research: IPY: POLENET/Greenland: using bedrock geodesy to constrain past and present day changes in Greenland’s ice mass. NSF – The Ohio State University, $22,812 (2 years).

2006 Van der Veen, C.J. (PI). Long-term mass balance of the Pacific Ocean Sector of Antarctica based on multisensor fusion. NASA – University at Buffalo, $19,992 (3 years).

2005 Jezek, K.C. (PI), E. Mosley-Thompson, L.G. Thompson, C.J. and van der Veen (Co-PIs), Science and Technology Center: Ice sheets and sea level rise. NSF – University of Kansas, $2,281,157; matching funds (OSU), $2,965,504 (5 years).


2004 Van der Veen, C.J. (PI) and B.M. Csatho (co-PI), Pilot study for using ASTER images to map glacial geomorphology. NASA, $14,442 (1 year).


2000 Van der Veen, C.J. (PI) and A.F. Schenk (Co-PI), *Greenland surface velocities and flow features from high resolution visible satellite imagery.* NSF-OPP, $239,527 (3 years). (OPP-9911981; RF-739360).


1990 Whillans, I.M. (PI) and C.J. van der Veen (Co-PI), *Mass balance and ice-stream mechanics in West Antarctica.* NSF-DPP, $405,000 (3 years). (OPP-9020760; RF-725115).

1990 Van der Veen, C.J. (PI), *Numerical studies on the onset of, and controls on fast streaming flow.* NSF-DPP, $90,000 (2 years). (DPP-9017445; RF-724857).


1988 Van der Veen, C.J. (PI), *An anisotropic flow law for ice.* OSU Board of Regents’ Research Challenge Program Investigator’s Fund, $3,225 (2 months).
Meetings, Conferences, etc.: (Presentations are marked *)

2009  
*Summer School on “Ice sheet models for the 21st century”, Portland State University, Portland, OR (August 3-14). (Co-organizer)

2009  

2008  
*Workshop on “Building a next-generation community ice sheet model.” Los Alamos National Laboratories, Los Alamos, NM (August 18-20). (Invited)

2008  
SCAR/IASC IPY Open Science Conference. St. Petersburg, Russia (July 8-11).

2008  
*Workshop on “Improving Ice Sheet Models.” St. Petersburg, Russia (July 5-7).

2008  
*Eighth Annual Center for Atmosphere and Ocean Science winter Workshop on “Predicting sea level in the 21st century: the role of ice-ocean interaction.” New York University, NY (February 22-23). (Invited)

2007  
*American Geophysical Union – Fall Meeting, San Francisco, CA (December 10-14). (Invited)

Future Climate Change Research and Observations: GCOS, WCRP and IGBP learning from the IPCC Fourth Assessment Report (AR4). Sydney, Australia (October 4-6). (Invited)

*Department of Meteorology, Stockholm University (June 23-30).

*Canadian Geophysical Union – Annual Meeting, St. John’s, Newfoundland (May 29-June 1). (Invited).

2006  
*American Geophysical Union – Fall Meeting, San Francisco, CA (December 11-15).

*University of Kansas, Lawrence, KS (March 2-3).

*Texas A&M, College Station, TX (February 12-14).

2004  
*American Geophysical Union – Fall Meeting, San Francisco, CA (December 13-17).

*European Geophysical Union – 1st General Assembly, Nice, France (April 25-30). (Invited).

2002  

2001  
Global Change Open Science Conference “Challenges of a Changing Earth”, Amsterdam, the Netherlands (July 10-13, 2001).


2000  
*PARCA Meeting, Granlibakken, Tahoe City CA (September 22-23).

Workshop on “Scientific Applications of Synthetic Aperture Radar (SAR) Satellites”, Los Angeles, California (June 26-28).

*PARCA Meeting, Boulder CO (February 10-11).

1999  
International Symposium on “The Verification of Cryospheric Models”, Zurich, Switzerland (August 16-20). (Poster).

Workshop on “Satellite Measurements and Monitoring of Glaciers and Ice Sheets”, Zurich, Switzerland (August 14-15).

1998  

IPCC workshop on “Rapid Non-Linear Climate Change”, Noordwijkhout, The Netherlands (March 31 - April 2). (Invited).

1997  
*EISMINT workshop on “Rheology and anisotropy”, Grindelwald, Switzerland (September 28-30). (Invited).

Third EISMINT workshop on “Model Intercomparison”, Grindelwald, Switzerland (September 25-27). (Invited).

*Workshop on “Tidewater Glaciers”, Mohican State Park (Columbus), Ohio (February 28 - March 2).
      International Symposium on “The Role of the Cryosphere in Global Change”, Columbus, Ohio (August 7-12). (Poster).
      Second EISMINT workshop on “Model Intercomparison”, Bremerhaven, Germany (June 22-24). *(Invited).*
      Midwestern Glaciologists Meeting, Columbus, Ohio (April 22-23).
1993  Fifth International Symposium on Antarctic Glaciology (VISAG), Cambridge, England (September 5-10). (Poster).
      *EISMINT workshop on “Model Intercomparison”, Brussels, Belgium (June 16-18). *(Invited).*
1990  *AGU Fall Meeting, San Francisco, California (December 3-6).
      *Sea Level Workshop, Woods Hole, Massachusetts (May 2-4). *(Invited).*
1989  *Alfred-Wegener-Institut für Polarforschung, Bremerhaven, Germany (July 27).
1988  *AGU spring meeting, Baltimore, Maryland (May 20).
1987  *World Lab-Archimede Project. First workshop: “Interaction of the solid planet with the atmosphere and climate”, Erice, Italy (November 18-December 5). *(Invited).*
      *Glaciology and Geophysical Institute, University of Copenhagen, Copenhagen, Denmark (September 15-16).
      *Fourth International Symposium on Antarctic Glaciology, Bremerhaven, West Germany (September 7-12).
1986  *Department of Geophysical Sciences, University of Chicago, Chicago, Illinois (November 21).
      *Geology Department, University of Illinois at Chicago, Chicago, Illinois (November 20).
1985/86  Institute of Polar Studies, The Ohio State University, Columbus, Ohio (October 16, 1985-March 4, 1986, including fieldwork in Antarctica).
1985  Workshop on “Hydraulic effects at the glacier bed”, Interlaken, Switzerland (September 16-21).
      *Workshop on “Dynamics of the West Antarctic Ice Sheet”, Utrecht, the Netherlands (May 6-8).
      NATO Advanced Study Institute course on “Large-scale transports in the atmosphere and ocean”, Les Houches, France (February 11-22).
      *10th Annual Meeting of the European Geophysical Society, Louvain-La-Neuve, Belgium (July 30-August 3).
      *Glaciology and Geophysical Institute, University of Copenhagen, Copenhagen, Denmark (May 7-8).
      Alfred-Wegener-Institut für Polarforschung, Bremerhaven, Federal Republic of Germany (May 4).
1983  Department of Geological Sciences, Northwestern University, Evanston, Illinois (December 16).
      Geophysical and Polar Research Center, University of Wisconsin, Madison, Wisconsin (December 13-15).
Meeting of north-western glaciologists, University of Washington, Seattle, Washington (December 1-2).
*Department of Geophysics and Astronomy, University of British Columbia, Vancouver, Canada (November 30).
Department of Geophysics, University of Arizona, Tempe, Arizona (November 21).
Institute for Quaternary Research, University of Maine, Orono, Maine (November 9-12).
*Institute of Polar Studies, The Ohio State University, Columbus, Ohio (September 13-November 8).

1982

Second School on climatology: CO$_2$ and climate changes, Erice, Sicily, Italy (July 16-26).
Faculty Statement: Barney Warf

Barney Warf’s research and teaching agenda lies firmly within the department’s human geography program.

He has exceptionally diverse research interests, which straddle contemporary political economy and social theory on the one hand and traditional quantitative, empirical approaches on the other. Much of his work concerns the geographies of producer services and finance, including their relations to globalization, regional economic impacts, and technological changes. He has focused extensively on telecommunications, including the nature of electronic capital markets, the satellite and fiber optics industries, offshore banking in several contexts, mergers in the telecommunications industry, and more recently, geographies of the internet in various regional contexts, including the digital divide. One variant of this work concerns time-space compression, about which he wrote a monograph. Recently he published a paper on medical tourism in Costa Rica, one of three field-based papers on Latin America. A second line of work concerns political geography, including electoral geography, the electoral college, and voting technologies. A third research theme centers on geographies of religion, including religious diversity in various contexts and megachurches. He has also written papers on New York as a global city, military spending and base closures, ports and maritime trade, free trade agreements, postmodernism, serial killers, race and altitude, video games, geographic education, Indonesia, and Cleveland.

He has co-authored or co-edited six books (including two textbooks, one in its 5th edition), 35 book chapters and roughly 90 refereed journal articles. He is currently finishing editing his second encyclopedia, a six-volume set for Sage. He has served or serves on the editorial boards of the Geographical Review, Annals of the Association of American Geographers, Growth and Change, Professional Geographer, Urban Geography, International Regional Science Review, and Geografiska Annaler. His papers have appeared in the Annals of the Association of American Geographers, Professional Geographer (14 times), Economic Geography; Urban Geography; Political Geography; Geographical Review; Growth and Change; Industrial Geographer; Geoforum; Regional Studies; Urban Studies; Tijdschrift voor Economische en Sociale Geografie; the International Regional Science Review; Ethics, Place and Environment; Transactions of the Institute of British Geographers; Area; Southeastern Geographer; Cultural Geography; Social and Cultural Geography; Singapore Journal of Tropical Geography; Environment and Planning A, B, and D; Applied Geographic Studies; and the Journal of Geography. In early 2010, he assumed co-editorship of Growth and Change.

Warf’s teaching interests include urban and economic geography, globalization, and social theory. He regularly teaches the introductory freshman human geography course. His undergraduate courses are lecture-based, with considerable effort put into Powerpoint presentations. At the graduate level, he teaches the course on the history and development of geographic thought as well as seminars on current topics in human geography. Graduate courses emphasize a heavy reading and writing load, with considerable feedback. His courses take as central themes concerns over social justice, poverty, and uneven spatial development, all of which lie at the intersection of the economic, political, and cultural.
EDUCATION

1985   Ph.D. (Geography) University of Washington
1981   M.A. (Geography) U.C.L.A.
1979   B.A. (Geography) U.C.L.A.

PROFESSIONAL EMPLOYMENT

2008+   Professor, Dept. of Geography, University of Kansas
2006-08 Earl and Sophia Shaw Professor, Dept. of Geography, Florida State University
1996-06 Professor and Chair, Dept. of Geography, Florida State University
1994-96 Associate Professor and Chair, Dept. of Geography, Florida State University
1993-94 Associate Professor, Dept. of Geography, Kent State University
1989-93 Assistant Professor, Dept. of Geography, Kent State University
1986-89 Economic Analyst, Port Authority of New York-New Jersey
1985-86 Visiting Assistant Professor, Dept. of Geography, University of Connecticut
1984-85 Teaching Assistant, Jackson School of International Studies, University of Washington
1981-83 Teaching Assistant, Dept. of Geography, University of Washington, Seattle
1979-81 Teaching Assistant, Dept. of Geography, U.C.L.A.

PUBLICATIONS

Books Authored:


**Books Edited:**

Forthcoming:


Book Chapters:
Forthcoming:


**Refereed Journal Articles:**

Under Review:


Warf, B. America’s contemporary digital divides. *Growth and Change*.


Warf, B. Regional, inter-regional, and international structures of Southern legal services. *Southeastern Geographer* 40:176-192.


Warf, B. The geopolitics/geoeconomics of military base closures in the USA. *Political Geography* 16:541-564.


**Non-refereed Publications**

Forthcoming:


Warf, B. Political economy of the Palm Beach County biotechnology research park. *Florida Geographer* 37:4-25.


1999 Warf, B. I satelliti nel contesto politico. Sistema Terra 8:18-25


Warf, B. Global cities in the age of hypermobile capital. City 3-4:40-43.


Warf, B. Destination Anguilla. Focus 41: fall, 22.


**Book Reviews**

Forthcoming:


*Secularism: The Hidden Origins of Disbelief*. By Mike King. *Tijdschrift voor Economische en Sociale Geografie*


1999 Defining the National Interest: Conflict and Change in American Foreign Policy. By P. Trubowitz. Regional Studies 33:187-188.


**GRANTS**

2009  KU Program for Costa Rican Studies ($2,100): Exports of health care services from Costa Rica
2006  FSU Middle East Studies Center course development grant ($2,000)
1994  Kent State University summer teaching grant ($6,500): The globalization of business and the business of globalization.
1992  Kent State University summer research grant ($6,500): Back office relocation to the Dominican Republic
1991  Economic Development Administration ($110,210): The Pentagon and the service sector
1986  Association of American Geographers research grant ($200): Services in the New England economy

AWARDS

2007  Helen and John Best Fellowship, American Geographical Society Library, Milwaukee
2006-07  Florida State University sabbatical leave
1999  Florida State University Teaching Award
1997  SEDAG Research Honors Award
1987  Outstanding Employee Award, Port Authority of New York-New Jersey
1985  University of Washington Dept. of Geography Distinguished Graduate Student Award
      University of Washington Dissertation Fellowship
1981  U.C.L.A. Dept. of Geography Distinguished Teaching Assistant Award
1979  Magna Cum Laude, U.C.L.A.

EDITORSHIPS, EDITORIAL BOARDS AND GUEST EDITORSHIPS

2012 (forthcoming)  *Geographical Review*, guest editor, special issue on Cosmopolitanism
2010+  Co-Editor, *Growth and Change* (with Dan Rickman, Oklahoma State University)
2010+  Editorial Board, Indiana University Spatial Series on the Humanities
2006+  Editorial Board, *Geographical Review*
2005+  Editorial Board, *Growth and Change*
2002+  Editorial Board, *Geografiska Annaler B*
2002+  Editor, Rowman and Littlefield “Human Geography in the New Millennium” Series
1997  *Geographical Review* v.87, no. 2, guest co-editor with P. Adams, special issue on geographies of cyberspace
1996+  Editorial Board, *International Regional Science Review*
1994  *Urban Geography* v. 17, no. 1, guest co-editor with R. Erickson, special issue on globalization and the U.S. city system
1994-6  Editorial Board, *Great Lakes Geographer*
1994  *Economic Geography* v. 69, no. 2, guest co-editor with A. Glasmeier, special issue on defense spending and regional development
1992-4  Editorial Board, *Professional Geographer*
1992  *Growth and Change* v. 22, guest book review editor, special issue on services
1990-2006 Editorial Board, *Urban Geography*
1990+ Editorial Board, *disClosure*
1988-89 *Geographical Review* Book Review Editor

**MISCELLANEOUS PROFESSIONAL EXPERIENCE**

2007 Visiting Professor (summer), Friedrich Schiller University, Jena, Germany
2006 Visiting Professor (summer), FSU Panama branch campus
2005 Expert Witness, Palm Beach County regarding Scripps Florida Biotechnology Park
2004 Visiting Professor (summer), FSU Valencia, Spain study abroad campus
2003-07 Instructor, FSU Seniors Academy
2003 Participant, Center for Spatially Integrated Social Sciences, workshop on “Accessibility in Time and Space: A GIS Approach,” Columbus, OH.
2001 Visiting Professor (summer), FSU Panama branch campus
1996 Florida Study Abroad Program, Florence, Italy, fall semester
1992 Visiting Professor (summer), University of Saskatchewan
1991 Consultant, Brooklyn Historical Society
Consultant, Federal Department of Transportation
1986-9 Adjunct Instructor, Dept. of Geography, Hunter College, CUNY
1985-6 Adjunct Instructor, Eastern Connecticut State University
1984 Consultant, Central Puget Sound Economic Development District, WA

**COURSES TAUGHT**

**Undergraduate:**
- Human Geography
- World Regional Geography
- East and Southeast Asia
- New York Metro Region
- Europe
- The Mediterranean
- Urban Geography
- Economic Geography

**Graduate:**
- History of Geographic Thought
- World Systems Theory
- Urban Geography
- Economic Geography
- Representations of Space
- Postmodernism
- Identity and Place
- Social Theory and Spatial Structures
- Globalization
- Modernity, Time, and Space
- Geographies of Consumption
GRADUATE STUDENT ADVISEES

Doctoral:
Kim, K. (FSU 2006)
Purcell, D. (FSU 2003)
Arrington, R. (FSU, in progress)

Masters:
Burns, P. (Kent State, 1994)
Yip, J. (Kent State, 1993)
Begum, A. (Kent State, 1993)

Graduate student committees (member not advisor):

Geography

Doctoral
Putnam, H. (KU, in progress)
Hungerford, H. (KU, in progress)
Demares, G. (KU, in progress)
Campbell, J. (KU, in progress)
Gilbreath, A. (KU, in progress)
Gilley, J. (KU, in progress)
Hilburn, A. (KU, in progress)
Mayberry, B. (KU, in progress)
Lee, H. (FSU, 2009)
McGowin, D. (FSU, in progress)
Sanchez, L. (FSU 2008)
Chapman, T. (FSU 2007)
Stewart, K. (FSU 2006)
Kaya, I. (FSU 2002)
Pennock, R. (FSU 2002)
Walter, A. (FSU 2004)
Cobb, S. (University of Florida 2001)
Grimes, J. (FSU 2000)
Simmons, C. (FSU 1996)
Keiffer, A. (Kent State 1993)
Tripathi, S. (Kent State 1993)
Lopez, E. (Kent State 1993)

Masters
Conover, G. (FSU 2007)
Popescu, G. (FSU 2006)
Nicely, E. (FSU 2000)
Kelly, R. (FSU 1996)

20
Other Disciplines
Jeter-Holdt, M. (KU, History)
Pautz, J. (FSU, Humanities)
Petty, S. (FSU, Psychology 2008)
Ekmekci, F. (FSU Political Science 2008)
Fattore, C. (FSU Political Science 2006)
Leahy, K. (FSU Communications 2005)
Paniuki, H. (FSU Modern Languages 2005)

SERVICE TO GEOGRAPHY

2008 Chair, American Geographical Society Wrigley-Fairchild Award Committee
2007 Latin Americanist Specialty Group Student Paper Competition Award Committee Chair
2007-10 American Geographical Society Wrigley-Fairchild Prize Selection Committee
2006 Economic Geography Specialty Group Dissertation Award Committee
2004-6 Treasurer, Communications Geography Specialty Group
2003 AAG Nystrom Award Committee
2002 Environmental Protection Agency Dissertation Grants Review Panel
2002 Reviewer, National Academy of Sciences report on *Demographic Dimensions of Urbanization in Developing Countries*
2001 AAG Annual Conference Program Committee
2001 Graduate Program Reviewer, University of Western Ontario
2001 AAG Urban Geography Specialty Group Board of Directors member (elected)
2001-02 NSF Geography and Regional Science Grant Proposal Review Panel
2000 AAG Centennial Celebration Coordination Committee
1999 Economic Geography Specialty Group Nominating Committee (elected)
1997-9 AAG Industrial Geography Specialty Group Dissertation Award Committee
1997 SEDAAG Honors Committee (elected)
1997 SEDAAG Florida representative (elected)
1997 National Center for the Revitalization of Central Cities
1994-5 Project Adviser Committee, Geography Education Standards Project, National Council for Geographic Education
1993-4 AAG Industrial Geography Specialty Group Board of Directors and Secretary (elected)
1990-2 A.A.G. Industrial Geography Specialty Group Board of Directors and Secretary (elected)
A.A.G. Political Geography Specialty Group Board of Directors member (elected)
Manuscript reviewer: *Annals of the AAG; Economic Geography; Political Geography; Urban Geography; Gender, Place and Culture; Transactions of the Institute of British Geographers; Historical Geography; Growth and Change; Professional Geographer; Applied Geography; Journal of Geography; Geoforum; Urban Affairs Review; Urban Studies; Journal of Rural Studies; Social and Cultural Geography; Antipode; Geopolitics; Telecommunications Policy; Review of International Political Economy; Environment and Planning A; Industrial Geographer; Geography Compass.*

**DEPARTMENTAL AND UNIVERSITY SERVICE**

University of Kansas:
- 2010+ Faculty Senate Research Committee
- 2009-10 Associate Chair, Dept. of Geography
  - Faculty Affairs Committee (chair)
  - College Academic Misconduct Committee
- 2008-09 Graduate Studies Committee

Florida State University:
- 2007-08 Undergraduate Student Advisor
- 1994-2006 Chair, Dept. of Geography
- 1997-99 College and University Professional Excellence Award Committees
- 1995-06 University Chairs and Deans’ Education Committee
- 1996-2002 University Calendar Committee
- 1997-98 College and University Promotion and Tenure Committees
- 1994-97, 2003-5 Faculty Senate Representative

Kent State University:
- 1993-94 Arts and Sciences Tenure and Promotion Committee
  - Geography department colloquium organizer
- 1989-94 Undergraduate and Graduate Studies Committees
  - Chair, KSU chapter, Gamma Theta Upsilon

**TENURE AND/OR PROMOTION REVIEWER**

2010  Martin Dodge, University of Manchester
2009  William Holden, University of Calgary
  - Robin Leichenko, Rutgers University
  - James Biles, Indiana University (pre-tenure review)
  - Mark Wilson, Michigan State University
2008  Ronald Kalafsky, University of Tennessee
2006  Bill Graves, University of North Carolina, Charlotte
  - Sanjay Chakravorty, Temple University
  - James Efflin, Ball State University
James Tyner, Kent State University
Matt Zook, University of Kentucky
2005 Martin Bosman, University of South Florida
   Seamus Grimes, National University of Ireland, Galway
   Hongmian Gong, Hunter College
2004 Yeong-Hyun Kim, Ohio University
   Igor Vojnovic, Michigan State University
   Jessie Poon, SUNY Buffalo
2003 Selima Sultana, Auburn University
2001 David Angel, Clark University
   Susan Walcott, Georgia State University
1998 Scott Salmon, Miami University
1997 Judith Kenny, University of Wisconsin Milwaukee

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS

- Association of American Geographers
- American Geographical Society
- Conference of Latin Americanist Geographers
- Regional Science Association
- Great Plains-Rocky Mountains Division, A.A.G.
- International Geographical Union
- Economists for Peace and Security
- Phi Beta Delta (Honor Society for International Scholars)

INVITED PRESENTATIONS

2010 University of Wisconsin, Milwaukee Center for 21st Century Studies
   Distinguished visiting speaker (spring, 2 weeks), University College London
2009 Kansas State University
2007 Howard Stafford Lecture, University of Cincinnati (From surfaces to networks)
   University of South Florida
   University of Maryland
   University of Wisconsin, Milwaukee
   Friedrich Schiller University, Jena, Germany
   University of Kansas
   University of Florida
2006 FSU Interdisciplining the Body Conference keynote address (Geographies of the body)
2005 Kent State University
2004 Indiana State University, Critical Geographies keynote address (The core)
2002 Hunter College
Texas A&M University

2000 Syracuse University
University of Toledo

University of Florida

1993 Ohio Bureau of Employment Services
Miami University
Youngstown State University

1992 Michigan State University

1991 University of Minnesota
Portland State University
University of Oregon
Oregon Academy of Sciences
University of Illinois
New York Society of Securities Analysts

1990 Portsmouth Polytechnic, Portsmouth, U.K.
University of Akron
University of Kentucky
Ohio State University

1989 California State University, Hayward
Kent State University (also 1992)
Rockefeller Institute, Albany, NY
Capital District Planning Association, Albany, NY

1988 S.U.N.Y. Albany
Wilfrid Laurier University, Ontario
S.U.N.Y. Buffalo
Hunter College, New York
Geographisches Institut, Zurich, Switzerland
Pennsylvania State University

1987 West Virginia University (also 1991)

1986 University of Connecticut
Clark University
Rutgers University

1982 University of Washington (also 1985)

1981 U.C.L.A.

CONFERENCE PRESENTATIONS

Warf, B. The prehistory of time-space compression. AAG, Las Vegas.
Warf, B. Geographies of the Latin American internet. Latin American Studies Association,
2008  Warf, B. The diffusion of the clock and the remaking of time in late medieval Europe. AAG, Boston.
Warf, B. The electoral college and spatial biases in voter power. Miniconference on Electoral Geography, Tallahassee.
Warf, B. Engineering time and space with the global fiber optics network. Engineering Earth Megaprojects Conference, Lexington, KY.


2006  Warf, B. Political economy of the U.S. biotechnology industry. Political Geography Pre-Conference, Urbana, IL.
Warf, B. Florida’s biotechnology sector and the Palm Beach County research park. Florida Society of Geographers, St. Petersburg, FL.
Warf, B. Spatial patterns of religious diversity in the U.S. and Canada. SEDAAG, Morgantown, WV.
Warf, B. Creativity, contingency, and time-space: A post-structuralist critique. 2nd Interdisciplinary Symposium on Knowledge and Space, Heidelberg, Germany.

Warf, B. The Arab internet. Digital Communities Conference, Benevento, Italy.
Warf, B. Representations of the Panama Canal in National Geographic. CLAG, Morelia, Mexico.
Warf, B. Political economy of the Palm Beach County biotechnology park. SEDAAG, West Palm Beach, FL.

2004  Warf, B. Do voting technologies discriminate against Southern Democrats and minorities? SEDAAG, Biloxi, MS.
Warf, B. Geographies of patent innovation among Florida’s metropolitan areas. Florida Society of Geographers, Pensacola.
Warf, B. Neoliberalism, cyberspace, and the hyermobility of capital. Political Geography Pre-Conference, Atlantic City.
Warf, B. Advancing human geography at the commencement du siecle. AAG, Philadelphia.

Rio de Janeiro, Brazil.
Warf, B. Geographies of broadband access in the United States. Digital Communities Conference, Stockholm.
Warf, B. SEDAAG, Charlotte, NC.

2002  Warf, B. Tailored for Panama: Offshore banking at the crossroads of the Americas. AAG, Los Angeles.
Ueland, J. and B. Warf. Racialized topographies: Altitude and race in Southern cities. SEDAAG, Richmond, VA.

Warf, B. The Kuna indians of Panama: Tradition confronts commodification on the San Blas Islands. SEDAAG, Lexington, KY.

Warf, B. Mergers and acquisitions in telecommunications. SEDAAG, Chapel Hill, NC.

1999  Warf, B. Haiku for the eyes: The hypnagogic landscapes of Thomas McKnight. Florida Society of Geographers, Gainesville, FL.
Warf, B. Correlates of internet access in the United States. AAG, Honolulu, HI.
Warf, B. Extraterrestrial eyes: Satellites and the discursive scripting of political space. Political Geography Pre-conference, Maui, HI.
Warf, B. Competition between satellite and fiber optic telecommunications carriers. E*Space Digital Communities Conference, Cape Town, South Africa.

1998  Warf, B. Compromising positions: The body in cyberspace. Conference on Telecommunications and the City, Athens, GA.
Warf, B. New York at the fin de siecle. AAG, Boston.
Warf, B. Regional, interregional, and international structure of Southern legal services. SEDAAG, Memphis, TN.
Warf, B. The globalization of legal services. Regional Science Association, Santa Fe, NM.

1997  Warf, B. The rise and fall and rise of Cleveland. AAG, Ft. Worth, TX.
Warf, B. Satellite Geopolitics. E*Space Digital Communities Conference, Singapore and
Kuala Lumpur, Malaysia.
Warf, B. Teaching social theory and political economy in human geography. NCGE, Orlando.
Warf, B. and J. Grimes. Southern services in the late twentieth century. SEDAAG, Birmingham, AL.

1996
Warf, B. The Pentagon and the sunshine state. Florida Society of Geographers, Tallahassee.
Warf, B. The hypermobility of capital and the collapse of the Keynesian state. Conference on the Crisis of Global Regulation and Governance, Athens, GA.
Warf, B. Reach out and touch someone: AT&T's global operations in the 1990s. AAG, Charlotte, NC.
Warf, B. Segueways into cyberspace: The geopolitics of the internet. E*Space Digital Communities Conference, Hikone, Japan.

1994
Warf, B. Separated at birth? What Regional Science can learn from social theory. Regional Science Association, Cincinnati, OH.
Warf, B. Southern landscapes of the financial services crisis. SEDAAG, Knoxville.
Warf, B. The third plague pandemic. Florida Society of Geographers, Fort Lauderdale.
Warf, B. The geopolitics/geoeconomics of military base closures. AAG, Chicago.
Warf, B. Japanese information services in the age of global capital. E*Space Digital Communities Conference, Lansing, MI.

1993
Warf, B. Information services in the Dominican Republic. AAG, Atlanta.

1992
Warf, B. The Pentagon and the service sector. AAG, San Diego.
Warf, B. Pentagon contracts with service firms in the U.S.: Implications for disarmament.
International Peace Science Conference, Rotterdam, Netherlands.

1991
Warf, B. The international securities industry. East Lakes AAG, Youngstown, OH.
Warf, B. International engineering services in the 1980s. Southern RSA, Miami.

1990
Warf, B. The U.S.-Canadian Free Trade Agreement and transportation services. Regional Science Association, Boston.
Warf, B. Foreign-owned high technology firms in the New York metropolitan region. Southern RSA, Washington, DC.
Warf, B. Consciousness, scale, and the locality debate. AAG, Toronto.

1989
Warf, B. Foreign-owned high technology firms in the U.S. East Lakes/Southeast AAG, Charleston, WV.
Warf, B. U.S. port competition with air and land transport services. Applied Geography Conference/Middle States AAG, Binghamton, NY.
Warf, B. Deindustrialization and the underclass in the New York metropolitan region. AAG, Baltimore.

1988
Warf, B. Telecommunications and the globalization of financial services. Middle States AAG, Reading, PA.
Warf, B. The reconstruction of social ecology and the renaissance of Brooklyn. AAG, Phoenix.

1987
Warf, B. Service sector growth and the New York renaissance. AAG, Portland, OR.

1986
Warf, B. Geographers and the Port Authority of New York-New Jersey. Middle States AAG, New York.
Warf, B. Ideology, everyday life and emancipatory phenomenology. CAG, Calgary, Alberta.
Warf, B. Amoskeag in structurationist perspective. Northeast RSA, Lowell, MA.
Warf, B. Structuration, uneven development, and the resurrection of local uniqueness. AAG,
Minneapolis.

       Warf, B. Structuration and the Wobblies. AAG, Detroit.
1984  Warf, B. Alonso was wrong: Reflections on the rent/commute trade-off. Association of Pacific Coast Geographers, Cheney, WA.
       Warf, B. Empiricism in geographic education. AAG, Washington, DC.
1983  Warf, B. Deskilling in sociospatial perspective. AAG, Denver.

REFERENCES

Dr. William Beyers, Professor
Dept. of Geography
University of Washington
Seattle, WA 98195
Beyers@U.Washington.edu

Dr. Stan Brunn, Professor
Dept. of Geography
University of Kentucky
Lexington, KY 40506-0027
Stan.Brunn@uky.edu

Dr. Dan Sui, Professor
Dept. of Geography
Ohio State University
Columbus, OH 43210-1361
sui.10@osu.edu, suidianzhi@yahoo.com
NAME: WILLIAM I. WOODS, PhD
RANK: Professor, Department of Geography; Courtesy Professor, Department of Anthropology

My commitment to teaching is deep and I thoroughly enjoy the experience whether with groups in the classroom or the field or individually through a variety of readings and independent study courses. In addition to my undergraduate and graduate courses taught in Geography, Anthropology, and Environmental Studies, I have served on over 50 graduate committees in Geography, Environmental Studies, Anthropology, Geology, Ancient Studies, and Art History and Archaeology resulting in completed MA, MS, and PhD degrees. To me, research and teaching are inseparable and I can’t imagine effectively engaging in one without the other, particularly when dealing with indigenous and traditional peoples and their articulation with dynamic cultural and physical environments through time.

During the past three years I have provided invited lectures and courses at the Sezione di Geopedologia e Meccanica, Università degli Studi di Perugia, Perugia, Italy; the Swedish Institut, Rome, Italy; the Premières Rencontres d’Histoire de l’environnement en Belgique, Namur, Belgium; the V Congreso de Arqueologia en Colombia Patrimonio, Paisaje y Sociedad, Bogotá, Colombia; the Nature & Culture Seminar, KU Hall Center for the Humanities; the World Archaeological Congress, Dublin, Ireland; Georg August Universität Göttingen, Germany; Escuela de Antropologia, Universidad de Costa Rica, San José, Costa Rica; Wageningen Universiteit, The Netherlands; the AgriEnergy Seminar, Mendota, IL; the Anthropology Seminar, KU, Lawrence, KS; the Pre1500 Seminar, the Conference of the Weston A. Price Foundation, Chantilly, VA; the Centro de Energia Nuclear na Agricultura, Universidade de São Paulo, Piracicaba, Brasil; Embrapa Amazônia Ocidental, Manaus, Brazil; the 72nd Annual Meeting of the Society for American Archaeology, Austin, TX; the 103rd Annual Meeting of the Association of American Geographers, San Francisco, CA; the Developing International Geoarchaeology 2007 Conference, Cambridge, UK; the 41st Annual Meeting of the Joint South-Central and North-Central Sections of the Geological Society of America, Lawrence, KS; presented in The Clarissa Kimber Professor Emeritus Lecture Series, Department of Geography, Texas A&M University, College Station, TX; and the Department of Anthropology Colloquium, Tulane University, New York, LA; and at the Département d’Archéologie et d’Histoire de l’Art, Université catholique de Louvain, Belgium; the Sociedade Brasileira para o Progresso da Ciência, Manaus, Brasil; and the World Environmental History Congress, Copenhagen, Denmark; Institute of Archaeology (Collegium Minus), Jagiellonian University, Krakow, Poland, among others.

I have for over 40 years conducted geographic, environmental, and archaeological investigations in North, Central, and South America, as well as in Europe. I have directed over 110 externally funded projects totaling over $5,000,000 and am the author, co-author, or editor for over 105 publications The general theme of this research has been on human-environment interactions with a focus on questions of sustainability in the past and the application of these articulations to the present and future. Topics of investigation have included Abandoned Settlements, Anthropogenic Environmental Change, Cultural Landscapes, Soils and Sediments, and Traditional Settlement-Subsistence Systems. I am presently a member of research teams working with anthropogenic soils and related environmental history and prehistory in the Brazilian Amazon, Belgium, Costa Rica, and at the UNESCO World Heritage Cahokia Mounds Site in southwestern Illinois. Another current research topic concerns carbon sequestration in soils as a potential mitigating process for land degradation and atmospheric CO₂ accumulation.
An ancillary interest involves birds has an indicator of anthropogenic environmental change. An additional major topic of research over the past two years has been on the reconstruction of global agricultural systems and associated land cover change during the past millennium with particular focus on South America. This work has been conducted in association with Swedish and European Community grants to Professor Mats Widgren, Stockholm University. This year I also began a research project with Professor Denise Schaan, University of Pará, and Dr. Wenceslau Teixeira, Embrapa Solos, Rio, Brazil, on the massive and widespread anthropogenic earthworks in the western portion of Amazonia.

During the past three years, my service at the department level has included membership on standing and search committees in both the departments of Geography and Anthropology, as well as providing guest lectures in a variety of courses in both departments. At the school and university level I have provided two seminars for students in the Honors Research Development Program; served on the KU Graduate School Committee for Responsible Scholarship; served as a reviewer for the Berkley Pre-Doctoral Art Museum Fellowship, Spencer Museum of Art; served as a member of the 20/21 Galleries Task Force, KU Spencer Museum of Art; served as a prepublication reviewer for the Kansas Geological Survey; and provided a gallery lecture for the KU Spencer Museum of Art.

During this same period my service outside the University has included serving as a proposal reviewer on numerous occasions for both the Archaeology and Geography and Regional Science programs for the National Science Foundation; the Committee for Research and Exploration of the National Geographic Society; The MacArthur Fellows Program, John D. and Catherine T. MacArthur Foundation; John Simon Guggenheim Memorial Foundation; the United Kingdom Economic and Social Research Council (ESRC); the U.S. Army Corps of Engineers Engineer Research and Development Center (ERDC); the United Kingdom Department for Environment, Food, and Rural Affairs (DEFRA); International Mobility and Promotion of Female Scientists, Austrian Science Fund; Interdisciplinary Research and Education Fund (INREF); Wageningen University, The Netherlands; the United Kingdom Engineering and Physical Sciences Research Council (EPSRC); Foundation for the Advancement of Mesoamerican Studies; US Student Fulbright Program; and Andrew W. Mellon Foundation/ACLS Early Career Fellowship Program Dissertation Completion Fellowships. I have served as a prepublication article or book reviewer for The Boston Globe, Quaternary Science Review, Social Science Quarterly, Catena, American Antiquity, Historical Methods, Journal of Latin American Geography, Quaternary Science Review, Leonardo, Geoarchaeology, Geomorphology, Human Ecology, PEDOSPHERE, Geografiska Annaler B, Biotropica, Diversity, and Springer-Verlag. I have been a promotion and tenure reviewer for the University of Alabama, Colorado College, and Louisiana State University. I have served as a technical advisor for the National Institute for Environmental Health, National Geographic News, the National Geographic Channel, National Geographic Magazine, the British Broadcasting Company, Jean-Michel Cousteau's Ocean Futures Society, Gruppe 5, and the Canadian Broadcasting Company. I also serve on the Scientific Board of the Bulletin of the Museu Paraense Emilio Goeldi, Belém, Brazil; the International Editorial Board, Journal of Latin American Geography, and am an Official Collaborator, Projeto Terra Preta, Embrapa Amazônia, Manaus, Brazil.

My honors include Who’s Who in Social Sciences Education; Who’s Who in America; the
Carl O. Sauer Distinguished Scholar Award for outstanding Latin American scholarship by the Conference of Latin Americanist Geographers; the Robert McC. Netting Award, Cultural and Political Ecology Specialty Group, Association of American Geographers; Co-authored volume *Envisioning Cahokia: A Landscape Perspective* (Northern Illinois University Press, DeKalb) received Book of the Year Award from the Illinois State Historical Society; the Paul Simon Outstanding Scholar Award, SIUE Graduate Faculty and the Graduate School; the Honor Society of Sigma Xi; Researcher of the Year Award, SIUE Chapter of Sigma Xi; Co-Recipient of the Ninth Annual Research Scholar Award, SIUE Graduate School; Summer Research Fellowship, UWM Graduate School; Summer Research Fellowship, UWM Graduate School; Summer Research Fellowship, UWM Graduate School; Bachelor of Arts Degree with Senior Honors and Honors in the Major (Anthropology), UWM; Honor Society of Phi Kappa Phi; UWM College of Letters and Science Honors Program; Undergraduate Scholarship, UWM College of Letters and Science; and a National Merit Letter of Commendation.
CURRICULUM VITAE

William I. Woods

Communication
Address: Department of Geography, The University of Kansas, Lawrence, KS 66045 USA.
Telephone: 785/864-5541.
E-mail: wwoods@ku.edu.

Educational Background

Wichita State University, Department of Spanish, summer school, Taxco, Mexico, 1964.

College
University of Wisconsin-Milwaukee, 1967-70.
Bachelor of Arts (Anthropology) 1970.

Graduate: University of Wisconsin-Milwaukee, 1970-75, 86.
Goethe Institut, Brilon, Germany, 1973.
Master of Arts (Geography) 1973.
Doctor of Philosophy (Geography) 1986.

Dissertation Title: Prehistoric Settlement and Subsistence in the Upland Cahokia Creek Drainage.
Advisor: Professor Clinton Edwards.

Languages
Successfully completed reading proficiency exams in German and Spanish at the University of
Wisconsin-Milwaukee. Granted Certificate of German Language Ability from the Goethe Institut,
Brilon, Germany.

Research Interests
Abandoned Settlements, Anthropogenic Environmental Change, Cultural Landscapes, Soils and
Sediments, Traditional Settlement-Subsistence Systems.

Honors and Awards
2009-Selected for Who’s Who in Social Sciences Education.
2008-Selected for Who’s Who in America.
2006-Carl O. Sauer Distinguished Scholar Award for outstanding Latin American scholarship by the
Conference of Latin Americanist Geographers.
2006-Robert McC. Netting Award, Cultural and Political Ecology Specialty Group, Association
of American Geographers.
2004-Co-authored volume Envisioning Cahokia: A Landscape Perspective (Northern Illinois
University Press, DeKalb) received Book of the Year Award from the Illinois State
Historical Society.
1999-Paul Simon Outstanding Scholar Award, SIUE Graduate Faculty and the Graduate School.
1989-Honor Society of Sigma Xi.
1987-Researcher of the Year Award, SIUE Chapter of Sigma Xi.
1982-Co-Recipient of the Ninth Annual Research Scholar Award, SIUE Graduate School.
1975-Summer Research Fellowship, UWM Graduate School.
1974-Summer Research Fellowship, UWM Graduate School.
1973-Summer Research Fellowship, UWM Graduate School.
1970-Bachelor of Arts Degree with Senior Honors and Honors in the Major (Anthropology), UWM.
1970-Honor Society of Phi Kappa Phi.
1968-70-UWM College of Letters and Science Honors Program.
1969-Undergraduate Scholarship, UWM College of Letters and Science.
1968-Undergraduate Scholarship, UWM College of Letters and Science.

Certifications

Section 405 Certified Professional Archaeologist for Prehistoric and Historic Projects, Illinois Historic Preservation Agency.

Society and Professional Affiliations


Professional Positions and Teaching Experience

2005-10-Professor, Department of Geography, The University of Kansas (KU). (Courses Taught: Human Geography; Global Environment and Civilization; Soils; Cultural Landscape; 1491; Anthrosols; Sustainability and Unsustainability; Environmental Studies Capstone Experience; Graduate Seminars).
2005-10-Courtesy Professor, Department of Anthropology, KU.
2005-10-Core Faculty Member, Latin American Studies Program, KU.
2009-10-Core Faculty Member, Center for Global and International Studies, KU.
2009-Guest Professor, Departement d’Archéologie et d’Histoire de l’Art, Université catholique de Louvain, Belgium (Graduate Seminar in Theory & History of Geoarchaeology with Case Studies from the Western Hemisphere).
2009-Guest Professor, Escuela de Antropología, Universidad de Costa Rica (Seminar in Geoarchaeology & Soils).
2005-08-Director, Environmental Studies Program, KU.
2005-08-Guest Professor, Long-Term Dynamics of Food and Human Development, PhD Seminar, Wageningen Universiteit, The Netherlands.
2005-Guest Professor, Umwelthistorische USA, Georg-August Universität Göttingen, Germany.
1994-2004-Professor, Department of Geography, SIUE (Courses Taught: Environments, Places, and People; Field Study of Environmental Problems; Field Study; Field School for Educators; Cultural Landscape; Latin America; Soils; Graduate Seminars in Cultural Geography, Physical Geography, and Regional Geography; Undergraduate and Graduate Internship, Independent Study, and Thesis).
1985-2004-Director, Contract Archaeology Program, SIUE.
2000-04-Affiliated Faculty Member, Environmental Studies Program, SIUE.
1989-94-Associate Professor, Department of Geography, SIUE.
1987-89-Assistant Professor, Department of Geography and Earth Science, SIUE.
1986-Guest Professor, Archaeological Field Techniques, Università degli Studi di Salerno, Italy.
1980-85-Lecturer, Department of Anthropology and the Environmental Studies Program, SIUE (Courses Taught: Introduction to Anthropology; Archaeological Mapping Techniques; Archaeology of the Midwest; Interdisciplinary Concepts of Environmental Analysis; Introductory and Advanced
Archaeological Field School; Undergraduate and Graduate Independent Study).
1976-85-Staff Archaeologist, Department of Anthropology, SIUE.
1983-Instructor, Belleville Area College, Belleville, IL (Cultural Anthropology).
1979-Part-time Faculty, Jefferson College, Hillsboro, MO (Cultural Anthropology).
1977-1979-Instructor, Archaeological Training Seminar for USDA Forest Service, SIUC, Carbondale, IL.
1975-Research Assistant, Department of Anthropology, UWM.
1972-1973-Project Assistant, Department of Geography, UWM.
1969-Tutor, College of Letters and Science, UWM (Economics and Geography).

Field Experience

2006-07-Conducted terra preta investigations at various sites in the Central Amazon under the auspices of the Projeto Amazônia Central, E.G. Neves, Principal Investigator.
1986-87-Directed archaeo logical controlled surface collection and soil testing at the San Vito site, Eboli, Italy. W. I. Woods and M. Mello, Principal Investigators.
1984-Directed excavation at the Wayne Fitzgerald site, Franklin County, IL. W. I. Woods, Principal Investigator.
1983-Directed site survey and testing at the Rend Lake Reservoir, Franklin and Jefferson counties, IL. W. I. Woods, Principal Investigator.
1981-83-Directed excavation at the St. Louis Arsenal, St. Louis, MO. W. I. Woods, Principal Investigator.
1981-82-Directed excavation at the Lawrence Primas site, Madison County, IL. W. I. Woods, Principal Investigator.
1981-82-Directed survey of the upland Cahokia Creek drainage, Madison County, IL. W. I. Woods, Principal Investigator.
1979-Directed site survey and test excavations at the Rend Lake Reservoir, Franklin and Jefferson counties, IL. S. G. Denny, Principal Investigator.
1978-Directed excavation of the Julien site, St. Clair County, IL. S. G. Denny, Principal Investigator.
1977-78-Directed site survey along the Dupo-Waterloo Anticline, Monroe County, IL. S. G. Denny, Principal Investigator.
1976-77-Conducted site survey and soils research along the proposed FAP-410, Monroe, Randolph, and Perry counties, IL. S. G. Denny, Principal Investigator.
1975-Conducted site survey and soils research in the Puebla Valley, Mexico. M. L. Fowler, Principal Investigator.
1974-Conducted survey and soils research at prehistoric and historic sites in Argentina and Colombia. R. C. Eidt, Principal Investigator.
1973-Conducted abandoned settlement research in Germany, England, and Ireland. R. C. Eidt, Principal Investigator.
1971-72-Conducted archaeological soils research at the Aztalan site, Jefferson County, WI. R. C. Eidt, Principal Investigator.
1969-Conducted archaeological survey of the Milwaukee River Valley, W. McHugh, Principal Investigator.

Service

2001, 06, 08 ,10-Prepublication article reviewer, Human Ecology.
1991-95, 97, 2000, 02, 05-10-Proposal reviewer, Archaeology Program, National Science Foundation.
2007-10-Member, Scientific Board of the Bulletin of the Museu Paraense Emílio Goeldi, Belém, Brasil.
2007-10-Official Collaborator, Projeto Terra Preta, Embrapa Amazônia, Manaus, Brasil.
2010-Prepublication article reviewer, Diversity.
2010-Member, Local Organizing Committee International Conference of the International Biochar Initiative 2010.
2010-Chair, Review Committee for the 2010 US Biochar Initiative Conference.
2010-Local Organizer, 1st International Conference on Human Migration, 1-3 March 2010, University of Kansas, Lawrence, KS.
2009-10-Prepublication article reviewer, Catena.
2010-Prepublication article reviewer, Geochimica et Cosmochimica Acta.
2010-Chair, Review Committee, 2010 U.S. Biochar Initiative Conference, Iowa City, IW.
2010-Organizing Committee Conference of the International Biochar Initiative 2010, Rio de Janeiro, Brazil.
1997, 2001, 05, 07-09-Proposal reviewer, Committee for Research and Exploration, National Geographic Society.
1999, 2002-04, 06-09-Proposal reviewer, Geography and Regional Science Program, National Science Foundation.
2009-10-Member, Department of Geography, Faculty Affairs Committee, University of Kansas.
2009-Assessor for the United Kingdom Economic and Social Research Council (ESRC).
2009-Reviewer, United Kingdom Department for Environment, Food, and Rural Affairs (DEFRA).
2009-Tenure and promotion reviewer for the University of Alabama.
2009-Technical consultant for the British Broadcasting Company.
1979-80, 82-83, 2009-Prepublication article reviewer for American Antiquity.
2009-Prepublication article reviewer, Quaternary Science Review.
2009-Prepublication article reviewer, Historical Methods.
1995, 2006, 08-Prepublication article reviewer, Geoarchaeology.
2006-08-Prepublication article reviewer for Geomorphology.
2007-08-Technical consultant for National Geographic Magazine.
2008-Technical consultant for the Canadian Broadcasting Company.
2008-Technical consultant for Plenty magazine.
2008-Technical consultant for Gruppe 5.
2008-Technical consultant for National Geographic Channel documentary Lost Cities of the Amazon.
2008-Reviewer, International Mobility and Promotion of Female Scientists, Austrian Science Fund.
2008-Technical consultant for PBS documentary “Back to the Amazon” Jean-Michel Cousteau's
Ocean Futures Society.
2008-Tenure and promotion reviewer for Colorado College.
2008-Prepublication article reviewer, *Quaternary Science Review*.
2008-Prepublication article reviewer, *PEDOSPHERE*.
2008-Prepublication article reviewer, *Leonardo*.
2007-Assessor for the United Kingdom Engineering and Physical Sciences Research Council (EPSRC).
2007-External Grant Reviewer, Foundation for the Advancement of Mesoamerican Studies.
2007-Prepublication article reviewer, *Geografiska Annaler B*.
2007-Prepublication article reviewer, *Biotropica*.
2007-Prepublication article reviewer, *Social Science Quarterly*.
2007-Tenure and promotion reviewer for Louisiana State University.
2007-Technical proposal reviewer, U.S. Army Corps of Engineers Engineer Research and Development Center (ERCD).
2006-07-Fellowship Reviewer, John Simon Guggenheim Memorial Foundation.
2006-07-Reviewer for US Fulbright Student Fulbright Program.
2006-Assessor for the United Kingdom Arts & Humanities Research Council, Phase 2 Funding for the University of Stirling Environmental History Research Centre “Environmental Choices: the Landscapes and Legacies of Energy Use.”
2006-Topic Editor (Soils), *Encyclopedia of Earth*.
2006-Merit Equity Reviewer, University of California, Los Angeles.
2006-Reviewer for Fulbright U.S. Scholar Program.
2006-Reviewer for Fulbright Brasilian Scholar Program.
2006-Graduate student reviewer, Coordenação de Aperfeiçoamento de Pessoal de Nível Superior, Ministério da Educação, Brasilia, D.F., Brasil.
2006-Faculty, University of Kansas Osher Lifelong Learning Institute, taught seminar “The Americas, Pre-1492.”
2005-06-Tenure and promotion reviewer for Michigan State University.
2004-06-Faculty research competition reviewer for The University of Texas.
2005-Prepublication article reviewer for *Soil Science Society of America Journal*.
2005-Prepublication article reviewer for *Journal of Mitigation and Adaptation Strategies for Global Change*.
1999-2001, 05-Prepublication article reviewer for *Journal of Archaeological Science*.
2005-Tenure and promotion reviewer for Cornell University.
2005-Promotion reviewer for Southern Illinois University Edwardsville.
2005-Member, Faculty Committee on Latin American Studies, KU.
2004-Prepublication article reviewer for *Catena*.
2004-Prepublication article reviewer for *Illinois Archaeology*.
2004-Tenure and promotion reviewer for Mississippi State University.
2004-Tenure and promotion reviewer for Stetson University.
2004-Promotion reviewer for The University of Texas.
2000-04-Committee Member, Phi Kappa Phi Undergraduate Scholarship Committee, SIUE.
2003-Prepublication article reviewer for *Caribbean Geography*.
2000, 2002-03-Prepublication article reviewer/commentator for *Science*.
2002-Book reviewer for *Historical Geography*.
1987-2002-Campus representative, Geological Society of America.
2001-Proposal reviewer, Ecosystem Studies Program, National Science Foundation.
2001-Prepublication article reviewer for *Geoderma*.
1999-2001-Member, Department of Geography, Personnel and Peer Review Committee, SIUE.
2000-Prepublication article reviewer for *Naturwissenschaften*.
2000-Prepublication article reviewer for *American Archaeology*.
1986, 99-Prepublication article reviewer for *Journal of Field Archaeology*.
1995-99-Chairman, Department of Geography, Library Committee, SIUE.
1996-98-Member, Three River Center for American Indian Studies Committee – SIUE with representatives of UMSL, the Missouri Historical Society, and Cahokia Mounds State Historic Site.
1993-95-Member, School of Social Sciences Library Committee, SIUE.
1994-Manuscript reviewer, University of Texas Press.
1993-Prepublication reviewer for the initial volume of *Illinois History Teacher*.
1993-Book reviewer for *The Victorian Periodicals Review*.
1993-Member, Ad Hoc Committee on Geography Masters Program Review, SIUE.
1991-93-Campus Co-Advisor to the TRIBE-Amerindian Student Union, SIUE.
1990-92-Member, Cahokia Advisory Board; Chairman, Education and Research Committee 1991-92.
1991-92-Campus Advisor, Gamma Theta Upsilon, International Geographical Honors Society, SIUE.
1991-Chairman, Ad Hoc Semester Conversion Committee, Department of Geography and Earth Science, SIUE.
1991-Member, Graduate Committee, Department of Geography and Earth Science, SIUE.
1990-91-Member, Department of Computer Science Program Review Committee, SIUE.
1990-91-Member, Ad Hoc Committee on Geography and Earth Science Program Development, SIUE.
1989-90-Member, Ad Hoc Committee on Earth Science Program Review, SIUE.
1990-Member, Committee to Design Supporting Services Building Annex, SIUE.
1988-91-Chairman, Ad Hoc Committee on Geography Undergraduate and Graduate Program Review, SIUE.
1987-89-Chairman, San Vito Site Committee, SIUE Graduate School, SIUE.
1984-Chairman, Cahokia Committee, Illinois Archaeological Survey.
1984-Chairman, San Vito Site Committee, SIUE Graduate School, SIUE.
1983-84-Chairman, San Vito Site Committee, SIUE Graduate School, SIUE.
1983-Prepublication chapter reviewer for the *American Chemical Society, Advances in Chemistry Series*.
1983-Prepublication article reviewer for the *Journal of California and Great Basin Anthropology*.
1982-Prepublication article reviewer for *Historical Archaeology*.
1979-Member, Task Force on Funding for the American Chemical Society, Subdivision on Archaeological Chemistry.

**Graduate Student Committees**

2009-Member, David T. McDermott (PhD, Department of Geography, KU).
2009-Co-Chairman, Jonathan Thayn (PhD, Department of Geography, KU).
2009-Member, Kristin Young (PhD, Department of Anthropology, KU).
2008-Co-Chairman, Ashley Zung (Master of Arts, Department of Geography, KU).
2008-Member, Phillip Edward Melton (PhD, Department of Anthropology, KU).
2008-Member, Christopher J. Fertig (MA, Department of Geography, KU).
2007-Member, Jared Beeton (PhD, Department of Geography, KU).
2007-Member, Heather Putnam (Master of Arts, Department of Geography, KU).
2004-Chairman, Ryan Gifford (Master of Sciences, Geographical Studies, SIUE).
2004-Chairman, Sara Loyet (Master of Sciences, Geographical Studies, SIUE).
2004-Member, Joseph M. McCann (PhD, Department of Geography, University of Wisconsin-Madison).
2003-Chairman, Andrew Martignoni, Jr. (Master of Sciences, Geographical Studies, SIUE).
2003-Chairman, Trisha Voyles (Master of Sciences, Geographical Studies, SIUE).
2003-Member, Mary Wittry-Mason (Master of Sciences, Geographical Studies, SIUE).
2002-Chairman, Teresa Gerber (Master of Sciences, Geographical Studies, SIUE).
2002-Member, Kendra Siebert (Master of Sciences, Geographical Studies, SIUE).
2002-Member, Barrett Diest (Master of Sciences, Geographical Studies, SIUE).
2001-Chairman, James Chelsvig (Master of Sciences, Geographical Studies, SIUE).
2001-Member, Austin Avwunudiogba (Master of Sciences, Geographical Studies, SIUE).
2001-Member, Nancy Davis (Master of Sciences, Geographical Studies, SIUE).
2000-Member, Michael Boester (Master of Sciences, Geographical Studies, SIUE).
1999-Chairman, Mary Goodwin (Master of Sciences, Geographical Studies, SIUE).
1999-Chairman, Nicholas Novosel (Master of Sciences, Geographical Studies, SIUE).
1999-Co-Chairman, Laura Luecking (Master of Sciences, Biological Studies-Geographical Studies, SIUE).
1999-Member, John McGuire (Master of Sciences, Geographical Studies, SIUE).
1999-Member, Lawra Grabowski (Master of Sciences, Environmental Studies, SIUE).
1998-Chairman, Kerry Doyle (Master of Sciences, Geographical Studies, SIUE).
1997-Chairman, Traci Kueker-Murphy (Master of Sciences, Geographical Studies, SIUE).
1996-Member, Jennifer Ringberg (Master of Arts, Department of Anthropology, Northern Illinois University).
1996-Member, Steven Godar (Master of Sciences, Geographical Studies, SIUE).
1996-Member, Brian Colgate (Master of Sciences, Environmental Studies, SIUE).
1995-Chairman, Susan York (Master of Sciences, Geographical Studies, SIUE).
1995-Member, Chris Schwedtmann (Master of Sciences, Environmental Studies, SIUE).
1994-Member, Mikels Skele (PhD, Department of Art History and Archaeology, Washington University).
1994-Member, Jonathan Taylor (Master of Sciences, Geographical Studies, SIUE).
1993-Member, Rinita Dalan (PhD, Ancient Studies Program, University of Minnesota).
1993-Member, Robert Whittington (Master of Sciences, Environmental Studies, SIUE).
1993-Member, Donald Peters (Master of Sciences, Geographical Studies, SIUE).
1993-Member, Gerald Ellis (Master of Sciences, Geographical Studies, SIUE).
1992-Chairman, Timothy Grunewald (Master of Sciences, Geographical Studies, SIUE).
1992-Chairman, Chris Deluca (Master of Sciences, Environmental Studies, SIUE).
1992-Member, Judy Horton (Master of Sciences, Environmental Studies, SIUE).
1992-Member, Matthew Malick (Master of Sciences, Environmental Studies, SIUE).
1990-Chairman, Emily Brown (Master of Sciences, Geographical Studies, SIUE).
1990-Member, Lisa Reme (Master of Sciences, Geographical Studies, SIUE).
1989-Chairman, Bonnie Gums (Master of Sciences, Geographical Studies, SIUE).
1989-Chairman, Dale Schaefer (Master of Sciences, Geographical Studies, SIUE).
1989-Chairman, Rinita Dalan (Master of Sciences, Environmental Studies, SIUE).
1989-Member, Clarence Buel (Master of Sciences, Geographical Studies, SIUE).
1988-Member, Jeff Meyer (Master of Sciences, Environmental Studies, SIUE).
1987-Chairman, Mikels Skele (Master of Sciences, Geographical Studies, SIUE).

Consulting

1989-2010-Archaeological soils and environmental analysis, Rock River Laboratory, Inc.
2006, 09-Amazonian dark earth soils, The BBC.
2007-08-Technical consultant for PBS documentary “Back to the Amazon” Jean-Michel Cousteau’s Ocean Futures Society.


2002-Amazonian dark earth soils, DOX Productions Ltd.


2000-Black Sea sediments, University Museum, University of Pennsylvania.


1989, 92-Archaeological soils, Mississippi Valley Archaeology Center, Inc.

1977, 80, 91-92-Archaeological soils, Archaeological Laboratory; University of Wisconsin-Milwaukee.

1990-Cultural resource assessment, Andrews Engineering, Inc.


1987-Archaeological soils, Argonne National Laboratory.


1985-86-Archaeological soils, Program for Cultural Resource Assessment, University of Kentucky.

1978-82, 86-Archaeological soils, Center for Archaeological Investigations, SIUC.

1985-Cultural resource assessment, Archaeological Survey, University of Missouri-St. Louis.


1983-84-Cultural resource assessment, Center for American Archeology.

1983-Cultural resource assessment, DeMier Oil Company.

1982-Cultural resource assessment, Inland Steel Coal.


1980-81-Archaeological soils, American Resources Group, Ltd.

1980-Archaeological soils, Old Missouri Research Institute.

1975-Archaeological soils, Illinois Department of Transportation.

**Publications**

**Books:**


**Book Chapters:**


Articles and Monographs:


**Reviews:**


**Published Reports:**


Other Publications:


Professional Papers and Presentations

Woods, W.I. The Upper Belize River Valley (Geomorphology, Resistivity, Excavation). Presented at the Institute of Archaeology (Collegium Minus), Jagiellonian University, 13 March 2010, Krakow, Poland.

Woods, W.I. Pre-European Water Control in the Valley of Mexico and the Puebla-Tlaxcala Basin. Presented at the Institute of Archaeology (Collegium Minus), Jagiellonian University, 13 March 2010, Krakow, Poland.

Woods, W.I. Dark Earths, Settlement, and Populations in Precolonial Amazonia. Presented at the Institute of Archaeology (Collegium Minus), Jagiellonian University, 12 March 2010, Krakow, Poland.

Woods, W.I. Cahokia: The Rise and Fall of a PreColumbian American Civilization. Presented at the Institute of Archaeology (Collegium Minus), Jagiellonian University, 12 March 2010, Krakow, Poland.


Woods, W.I. Amazonian Dark Earth: Implications for Pre-Columbian Settlement/Subsistence in the Region. Presented at the Department of Geography Seminar, University of Texas-Austin, 4 December 2009. Austin, TX.

Woods, W.I. Cultivated Landscapes of South America, AD 1000-1800. Presented at the First World Congress of Environmental History, 4 August 2009, Copenhagen, Denmark.


Woods, W.I. Amazonian Dark Earths and Their European Counterparts, Presented to the Faculty of the School of Agriculture, Perugia University, 18 December 2008, Perugia, Italy.


Woods, W.I. Pre-colonial Culture and Nature in Lowland Amazonia: Counterfeit Paradise or Bountiful Garden? Presented at the Nature & Culture Seminar, KU Hall Center for the Humanities, 14 November 2008, Lawrence, KS.


Woods, W.I. Terra Preta and Population in Amazonia. Presented in the Anthropology Seminar, University of Kansas, 30 November 2007, Lawrence, KS.

Woods, W.I. Geoarchaeological Investigations at Walthain Castle, Walonia, Belgium. Presented at the
Pre1500 Seminar, The University of Kansas Hall Center for the Humanities, 13 November 2007, Lawrence, KS.


Woods, W.I. Anthrosols and Site Formation Processes. Presented at the Centro de Energía Nuclear na Agricultura, Universidade de São Paulo, 1 November 2007, Piracicaba, Brazil.


Woods, W.I. The Geoarchaeology of Monks Mound. Presented at the 41st Annual Meeting of the Joint South-Central and North-Central Sections of the Geological Society of America, 13 April 2007, Lawrence, KS.


Woods, W.I. Occupation Nucleation and the Development of Amazonian Dark Earths. Presented at the Department of Anthropology Colloquium, Tulane University, 2 March 2007, New Orleans, LA.


Woods, W.I. Success or Collapse: Is It Still Our Choice? Presented at the University Forum, ECM Center, 6 September 2006, Lawrence, KS.


Woods, W.I. Amazonian Dark Earths: Shouldn’t Be, But Are. Presented at the Kansas State University, Department of Geology Seminar Series, 30 August 2005, Manhattan, KS.


Woods, W.I. Investigations into a Medieval Outer Bailey (Walhain, Belgium). Colloquium sponsored by the KU Department of Geography, 16 February 2005, Lawrence, KS.


Woods, W.I. Amazon Dark Earths: Past, Present, Prospect. Lecture presented to the Department of Geography, University of Kansas, 7 June 2004, Lawrence, KS.


Woods, W.I. Anthropogenically Enriched Soils in the Amazon Region. Presented at the Department of Geography Colloquium Series, University of Illinois at Urbana-Champaign, 20 February 2004, Urbana, IL.


Woods, W. I. The Black Earths of the Amazon. Presentation sponsored by the Walsh School of Foreign Service and the Georgetown University Center for Environment, Georgetown University, 29 October 2002.


Woods, W. I.  Cahokia: The Rise and Fall of America’s Only Prehistoric City.  Presented at the School of Archaeology and Paleoecology, Queen’s University, 20 September 2000, Belfast, UK.


Woods, W. I.  Cahokia and the Consequences of Nucleation.  Presented at the 50th International Congress of Americanists, 12 July 2000, Warsaw, Poland.


Woods, W. I.  A Geographer Looks at Prehistoric Cahokia.  Lecture in observance of Geographic Awareness Week, sponsored by the Department of Geology and Geography, Eastern Illinois University, 16 November 1998, Charleston, IL.


Woods, W. I. The Counterfeit Paradise Revisited. Presented at the Meeting of the Midwest Association for Latin American Studies, 1 November 1997, St. Louis, MO.


Woods, W. I. The Geography of Cahokia: Perception of Landscape Change through Time. Presented at the Department of Geography Spring Colloquium Series, University of Texas, 20 April 1994, Austin, TX.


Woods, W. I. Recent Developments in American Bottom Archaeology. Presented at the Department of Anthropology, University of New Mexico, 18 November 1993, Albuquerque, NM.


Woods, W. I., and N. H. Lopinot. Dynamic Patterns of Food Production at Cahokia. Presented at the 54th Annual Meeting of the Society for American Archaeology, 8 April 1989, Atlanta, GA.


Woods, W. I. Middle Woodland Settlement in the Upland Cahokia Creek Drainage, Madison County, Illinois. Presented at the 33rd Annual Midwest Archaeological Conference, 15 October 1988, Urbana, IL.


Woods, W. I. Chairman, Symposium entitled "SIUE Investigations at the Interpretive Center Tract, Cahokia Mounds State Historic Site." Presented at the 25th Annual Workshop on Illinois Archaeology, 7 November 1987, Collinsville, IL.


Woods, W. I. Chairman, Session on Midwestern Archaeology. Presented at the 52nd Annual Meeting of the Society for American Archaeology, 7 May 1987, Toronto, Canada.


Woods, W. I. Chairman, Session on the Consequences of the Physical Geography of Mexico, presented at the International Conference of Latin Americanist Geographers, 8 January 1987, Merida, Mexico.


Woods, W. I. Prehistoric Site Selection Criteria in the Cahokia Creek Drainage: Middle Woodland through Mississippian. Presented at the Penrose Conference on Archaeological Geology, 7 December 1986, St. Simons Island, GA.


Woods, W. I. SIUE Investigations at the Cahokia Interpretive Center Tract. Presented at the 24th Annual Workshop on Illinois Archaeology, 1 November 1986, Carbondale, IL.


Woods, W. I. Archaeological Investigations at the St. Louis Arsenal. Presented at the State of Historic Archaeology in Illinois Conference, 8 August 1986, Bloomington, IL.


Woods, W. I. Erosion and Cultural Resources at the Rend Lake Reservoir, Illinois. Presented at the Workshop to Develop Scope of Work for a Study of Techniques for the Preservation of Cultural Resources, sponsored by the U.S. Army Engineer Waterways Experiment Station, 31 July 1984, St. Louis, MO.


Woods, W. I. The Significance of Tunnel Erosion to Archaeology. Presented at the Third Annual Applied Geography Conference, 27 September 1980, Kent, OH.


Woods, W. I. Rapid Fractionation of Phosphate in Anthrosols. Presented at the Joint Meeting of the Illinois and Missouri State Academies of Science, 30 April 1977, St. Louis, MO.


Reports


Sanitary District.


Denny, S. G., and W. I. Woods. 1981. Emergency Data Recovery at the Sumac Site (11-Fk-62), A Crab Orchard Hamlet in Franklin County, IL. Submitted to the USACE, St. Louis District.


Woods, W. I. 1981. Report of Soil Analyses for the McNitt 1 Site (11-Ca-31), Carroll County, IL. Submitted to the Archaeological Research Laboratory, UWM.


Woods, W. I. 1981. An Archaeological Soils Investigation at the Fort I Site in Randolph County, IL. Submitted to the IDOC.


Woods, W. I. 1981. Formal Analysis of Mortar Samples from Fort de Chartres, Randolph County, IL. Submitted to the IDOC.


**Projects:** Principal Investigator

**Internally Funded Grants:**


Woods, W.I. 2002. Faculty Development Grant to attend AAG Meetings and present paper. SIUE College of Arts and Sciences (CAS). $600.


Woods, W.I. 2000. Faculty Development Grant. SIUE College of Arts and Sciences. $555.


Woods, W.I. 1998. Faculty Development Grant. SIUE College of Arts and Sciences. $2,100.


Woods, W.I. 1998. Instructional Equipment Grant, SIUE College of Arts and Sciences. $6,000.

Woods, W.I. 1997. Research and Research Tools Grant, SIUE College of Arts and Sciences. $1,000.


Woods, W.I. 1993. Research and Development Grant to develop a proposal for study of the *Terra Preta do Indio* soils in the Brazilian Amazon. SIUE Graduate School. $2,000.


**Externally Funded Grants:**


Woods, W.I. 1986. Processing and Analysis of Materials Recovered by the Village of Cahokia Controlled Surface Collection, St. Clair County, IL. CFCC. $3,000.


Woods, W.I. 1986. Topographic Mapping and Controlled Surface Collection, Village of Cahokia, St. Clair County, IL. CFCC. $1,000.


Woods, W.I. 1985. Archaeological Excavation for the Proposed Site of the New Interpretive Center Location 11, Cahokia Mounds State Historic Site, St. Clair County, IL. IHPA. $250,000.


Executive Summary: Geography

Mission

The Department of Geography’s main goal is to advance the understanding of human actions through cultural and social processes, and to understand the interaction of human development with the physical environment in the past, present and future. Within this broad goal, our research and education foci include studying global climate change; documenting environmental change through the use of remote sensing and geographic data assimilation techniques; understanding regional geography and human development in North America, Africa, Asia, Europe and Latin America; and using geographical information science (GIScience) techniques to view, represent, understand, and communicate data and knowledge over a wide range of spatial scales. We offer BA, BGS, BS, MA, and PhD degrees in Geography and BS and MS degrees in Atmospheric Science. We are one of the few geography departments in the U.S. to offer both Geography and Atmospheric Science degrees. We hope to eventually offer a MS degree in Geography.

Faculty

With two recent hires, we will have 24 tenure-track faculty at the start of the 2012 fiscal year. Numerous faculty (Braaten, Brown, Egbert, Myers, and O’Lear) have split appointments with other programs and centers, reflecting the strong interdisciplinary nature of our department. Many of our faculty also have close ties with area studies programs on campus (Cheong – East Asian Studies, Myers – African and African American Studies; Brown and Herlihy – Latin American Studies; and O’Lear – Center for Russian, East European and Eurasian Studies). Our faculty are known for their excellent in teaching, as six of them have received the Kemper Teaching Fellowship; other teaching honors have included the Michael J. Young Excellence in Advising Award, John C. Wright Graduate Mentor Award, Byron A. Alexander Graduate Mentor Award, and Chancellor’s Club Teaching Award. In terms of research, for the 2007-2009 period our faculty averaged 2.8 articles per year (about half first-authored) and approximately $115,000 per year in grant funding. On the NRC Research Rankings, we ranked 13th out of 49 geography programs.

Bachelor’s Degrees

The number of Geography undergraduate majors has almost doubled over a 10-year period, from 64 in 1999 to 127 in 2008. Over this same period, the number of graduates has increased from about 30/year to about 40/year. The number of Atmospheric Science majors has remained steady at about 75 during this period, but this is reasonable given that we have only four faculty dedicated to this program; approximately 10 Atmospheric Science students graduate each year. Typically, numerous students have GPAs above 3.5 and many of these go on to graduate programs at Research I universities. Our undergraduate Geography alumni have a very favorable impression of program, as 100% of the 43 Geography alumni responding to our survey indicated that they would advise others to come to KU for education in Geography. The results for our Atmospheric Science alumni were also quite positive, with 71% indicating that they would advise others to come to KU for atmospheric science education. One improvement that was
suggested by several Atmospheric Science alumni (including a couple who were very positive about the program) was the need for greater focus on the real world of weather forecasting.

Master’s Degrees (MA and MS)

The number of students enrolled in the MA and PhD graduate programs has varied from a low of 61 in 2003 to a high of 78 in 2008. The number of MA students has decreased slightly in recent years, but the quality is still high. One indication of quality is that for three years in a row (2007-2009), one of our MA students received the CLAS outstanding thesis award. Since 2003 we have made a concerted effort to reduce the time to degree -- from 2001-2003 the median time to degree varied from 3.1-4.7 years; from 2007-2009 the median time was 2.3-2.7 years. One clear trend for both the MA and PhD is that our students have become more human geography oriented, because of many of our faculty’s regional foci (note the Area Studies connections mentioned above). Our MA alumni students have expressed reasonable satisfaction with our program (a median of 4.0 on a 1 to 5 scale) and have expressed a need for more practical information in our introductory graduate level courses (805 and 806).

The MS in Atmospheric was only recently instituted (in 2009) and so it is difficult to summarize that degree. Presently, we have six enrolled and one has graduated.

Doctoral Degrees (PhD)

The number of PhD students has increased from representing a minority of graduate students early in the record to forming the majority later in the record, reflecting our concerted effort since 2003 to emphasize the Ph.D. program. The time to degree for PhD students has also been reduced, from 5.6-8.2 years in 2001-2003 to 4.6-7.2 years in 2007-2009. PhD students have expressed considerable satisfaction with our program (a median rating of 4.5 on the 1 to 5 scale). Two PhD students, Henry Way (2006) and Josh Long (2008), received Carlin Graduate Teaching Assistant awards (only two are awarded each year in a university-wide competition). Several students have also been awarded Fulbrights and fellowships in the NSF-funded C-Change IGERT program.

Change as a Result of the Review Process

Reviewers were impressed by our department, but felt that it was not quite as well known as it might be. To enhance our visibility, we are establishing research clusters and will clearly display these on a revamped website. Reviewers were also impressed by our undergraduate and graduate programs, but felt that these programs could be strengthened. As a result, we are revising both our BA and BS degrees. A key element for both will be the inclusion of a capstone course. We also plan to evaluate our graduate programs and consider a set of courses that all MA and PhD students will be required to take. This should handle some of the concerns that our MA students have had with 805 and 806, and allow us to integrate the required responsible scholarship guidelines that are now required of all PhD students across the university.

Overall Evaluation
To reiterate, our department is one of the few geography departments in the country that offers both Geography and Atmospheric Sciences degree. We feel that we are successful in both of these realms. We have increased the number of undergraduate Geography majors and added a new MS in Atmospheric Science, while maintaining the quality of our other programs. Some of our research foci, such as the study of global climate change, take advantage of our strengths in both Geography and Atmospheric Science. At the same time, we continue to be very successful in areas outside the realm of Atmospheric Science, such as in Area Studies.