

WSU DEPARTMENT OF GEOGRAPHY PROGRAM REVIEW

EXECUTIVE SUMMARY

In the mid 1990s, the department of geography was moved from the College of Science to the College of Social and Behavioral Science. At that time, there were only three full time faculty members, fewer than 25 majors, and only about 10 graduates from the program. Over the ensuing years, three more full time faculty members were carefully hired and the number of geography majors gradually rebounded and rose to our current enrollment of about 80 majors, with about 20 graduates in 2010-2011 (see Appendices A and B for enrollment statistics). Geography is now once again a department (rather than a program) and is headed by a chair (not a director). The department has expanded its curriculum over the years to include majors in general/systematic geography, and geography teaching, along with special emphases in urban & regional planning, ethnic studies, Asian studies, Latin American studies, European studies, and a relatively new program we have initiated in global studies. Some of these emphases just listed are also part of the university's curriculum as stand-alone inter-disciplinary minors or as concentrations within the Bachelor of Integrated Studies program (BIS).

The program continues to attract new majors, many of whom choose to pursue career training in cartography/geographic information systems (GIS) and land use planning, our two leading areas of employment for graduates. Each year, at least two to three graduating seniors gain admission to graduate programs in geography. Common areas of interest for graduate study include public administration in land use planning, natural resource management, and cartography/GIS. Ongoing course and program assessments indicate that objectives are being met for both, though some improvements can still be made, e.g., tracking of graduates and alumni association development.

- **Mission Statement:**

The mission of the geography department is to provide students with an overview of the discipline, specific skills that will help them in their careers (see Appendix G), and knowledge that will help them organize and maintain an effective philosophy of life that reflects an understanding of their natural and cultural surroundings. See extended version of the mission statement below.

- **Curriculum - types of degrees, number of courses, admissions process:**

Two types of degrees are granted. These include the Bachelor of Science, and Bachelor of Integrated Studies (an interdisciplinary program with three major concentrations). Thirty four separate courses are offered in the department. These include six lower division courses, one graduate course, and the rest are upper division courses. There are a number of different tracks in which students can choose to major. These include regular systematic geography, urban and regional planning, geography teaching, Asian studies, American ethnic studies, Latin American studies, European studies, environmental studies, global studies, and a technical emphasis in cartography/GIS. The program offers at least one or two field studies courses each semester and assists students with internships (cooperative work experience). In addition to traditional course work, the curriculum allows for independent, individual research with selected faculty of the students' choosing. Students are admitted to the program at any time during the academic year and meet with the department chair and other faculty for advising. Students also gain information from the department's website at: <http://www.weber.edu/geography/>

A list of all geography courses and their descriptions is available online at the address above or the WSU online course catalog.

- Student learning outcomes and assessment:

The department is currently assessing the three introductory level courses that fulfill General Education requirements. Learning outcomes for these courses were established five to six years ago, and current assessment strategies have been approved by the WSU Curriculum Committee (see Appendix C for assessment samples). Assessment of upper division courses, largely through course evaluations, is ongoing and overseen by the department chair. Assessment of individual courses also emerges during the tenure and promotion review process for individual faculty members. Regarding overall program assessment, exit interviews with graduating seniors are conducted, students gaining admittance to graduate programs are counted and tracked where possible (Appendix G), and follow-up questionnaires are sent to recent graduates. Several years ago an exit exam was administered to graduating seniors, but the results were inconclusive and difficult to interpret, and the exams were discontinued. Student responses in exit interviews and mailed-back questionnaires are discussed in department meetings to see if there are any patterns that might warrant changes in curriculum or assessment procedures. The research seminar offered during the student's final semester in the program provides some of the more meaningful assessment. Geography faculty members meet on a monthly basis to discuss current course assessments, current program offerings and overall program performance.

- Academic Advising:

General education advising is done by the college of social science general education advisor. Major advising is done informally by all faculty whenever a student inquiry is made. Official advising and final major/minor clearances are done by the department chair. Advising for the planning emphasis is done by the coordinator of the urban and regional planning program and approved by the department chair (currently the same faculty member).

- Faculty:

The department has six full time faculty (five of whom are tenured and one on tenure-track). The department also employs seven adjunct faculty (whose salaries are paid by the WSU main campus department of continuing education, the Davis campus continuing education office, and periodically by the college of social sciences). The department accepts many courses that include topics in geography, area studies, and environmental issues taught by faculty in other disciplines (i.e., botany, geology, geospatial analysis, zoology, foreign languages, economics, history, anthropology, sociology, political science, microbiology, and English). See Appendix D for a summary of full time and part time faculty, and Appendix E for abbreviated C.V.s for full time faculty.

- Program Support:

The geography program is adequately supported by the College of Social Science, university library, campus and college computer support, department faculty and alumni scholarship donations, and donations from various local planning agencies (county, city, etc.). Student research efforts and service activities are supported by the Office of Undergraduate Research and the Community Involvement Center (CIC). Faculty members have a strong record of securing internal funding, endowments and awards, but external funding may be expanded.

- Relationships with the External Community:

The department has liaisons with a variety of state, county, and local planning agencies which employ graduates, hire interns, and provide occasional department instruction and guest appearances. Faculty members are also involved with the CIC, which allows students the opportunity to engage with community organizations such as the Nature Center and Friends of Great Salt Lake. Liaisons are also kept with local mapping companies and non-governmental organizations such as, Envision Utah (guest lectures and other on-campus appearances), and the Association of American Geographers (department has hosted visiting scholars from various sub-disciplines in geography). See Appendix F for a partial list of community partners.

DEPARTMENT OF GEOGRAPHY PROGRAM REVIEW

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GEOGRAPHY AT WEBER STATE: EXPANDING OPPORTUNITIES IN LEARNING, SERVICE AND CAREER DEVELOPMENT

The WSU geography program, which originated in the College of Natural Sciences as a part of a geology/geography department in 1964, continues to expand opportunities for student learning, community service and career development. Over the years, geography instruction has grown into a major program with over thirty different courses, including a number of courses cross-listed with and taught by geology, botany, and zoology faculty (i.e., geomorphology, oceanography, conservation & resources, soils, ecology, plant geography, and zoogeography). The two disciplines of geography and geology remained in a joint department until the mid 1980s, when the geologists requested and were granted a separate department. At this time geography became a separate department with four full time faculty and separate majors in physical geography, cartography, geography teaching, and general geography, along with an interdisciplinary program in urban planning.

In the mid 1990s, the department of geography was moved from the College of Science to the College of Social and Behavioral Science. At that time, there were only three full time faculty members, fewer than 25 majors, and only about 10 graduates from the program. Over the ensuing years, three more full time faculty members were carefully hired and the number of geography majors gradually rebounded and rose to our current enrollment of about 80 majors (fall, 2011), with about 20 graduates in AY 2010-2011 (see Appendix B for annual numbers of graduates). Geography is now once again a department (rather than a program) and is headed by a chair (not a director). The department has expanded its curriculum over the years to include majors in general/systematic geography, and geography teaching along with special emphases in urban & regional planning, environmental studies, ethnic studies, Asian studies, Latin American studies, European studies, and a relatively new program we have initiated in global studies. Some of these emphases just listed are also part of the university's curriculum as stand-alone inter-disciplinary minors or as concentrations within the Bachelor of Integrated Studies program (BIS).

Chronology of significant changes/events (1995 to present):

- (1995-96) Geography became a program in the College of Social and Behavioral Sciences, separate from the Department of Geosciences. The separation of the programs had the following results: geography gave up one retirement position to the College of Natural Sciences in order to help with a budget shortfall, geography was administratively moved to the social sciences, was downgraded from a department to a "program," and the department chair was downgraded to an unpaid "program director" teaching a full load of classes each semester.
- (1998-99) In an effort to regain a stronger student base, we successfully implemented an extensive and comprehensive curriculum revision and initiated a number of new practices designed to increase students and majors. This involved (1) the creation of several new courses (including a variable-title course for new and unusual regional offerings); (2) the creation of a new program in Latin American studies; (3) the expansion of our already-existing new environmental studies program to include many more courses from other departments, both in the natural sciences as well as in the humanities, the social sciences, and business (i.e., environmental literature, environmental history, environmental economics, and environmental sociology); (4) the inclusion of introductory GIS instruction in our own cartography classes (with consent from the Geosciences Dept.); (5) the

extensive publicizing of new programs (through multiple visits to the counseling office and through publishing many new flyers describing our programs); (6) the dropping of a requirement that geography majors complete a minor (because of the multiple prerequisites required for many environmental and other courses); and (7) the establishment of several new scholarships funded by faculty and alumni contributions. Partly as a result of all these changes, the department experienced at the end of the 1998-99 school year a near doubling in the number of graduates and an increase in the number of geography majors to 28 (see Appendices A and B).

- (1999-2001) Over a four year period, following many curriculum revisions, course changes, publicity initiatives, personnel changes, and a challenging switch from the quarter system to the semester system, the department's number of majors rose from 8 or 9 in the Fall of the 1997-98 school year, to 28 at the end of the 1998-99 school year, to 41 at the end of the 1999-2000 school year, to 54 at the end of the 2000-01 school year.

- (2001) Following efforts to schedule as many large classes at competitive times as possible, the department's SCH totals increased significantly. Over a three year period (since the Fall of 1997) our SCHs went from 4,949 (1997-98), to 5,670 (1998-99), to 6,503 (1999-2000). This resulted in large measure from scheduling many additional sections of our Natural Environments of the Earth class (formerly physical geography) and our Places and Peoples of the World class (formerly world regional geography). During these years the geography department also registered the highest SCH and FTE gains in the College of Social Science. As a result of these increases, our department was awarded one new faculty position, bringing the total to five geographers.

- (2001-02) The number of geography majors grew to 56. This was the highest since records for the department began in 1967.

- (2002-03) The number of geography majors increased to 76 (a new all-time high). During this year the number of geography graduates increased to 23 (also a new all-time high).

- (2003-04) The department successfully proposed and implemented two new geography emphases in European studies and ethnic studies, as well as two new courses in arid lands and in arctic & alpine environments (which complemented our already-existing wetlands class). By structuring our physical geography instruction in this way, we sought to avoid potential conflicts with the Dept. of Geosciences (whose environmental courses included meteorology, oceanography, geomorphology, and hydrology). We also increased the number of work stations in the department computer lab from 8 to 13 (as before, by taking cast-off computers from other labs on campus) and were able to replace our oldest computers with newer models. Once again, we finished the school year with a departmental budget surplus (for the tenth year in a row). This surplus, which had been earmarked mostly for electronic equipment purchases, had increased over the years and stood at over \$5,000.00. Also, a number of successful grant proposals had been written. These enabled us to equip all our classrooms with new computer projection systems. At the end of the spring semester the number of majors in the department stood at 74 (second highest in department history). The number of geography graduates also remained high at 22 (second highest in department history).

- (2004-05) At the end of the Fall semester of 2004 the department had 80 majors (a new all-time high). As a result of geography's continued growth the department was awarded a new faculty position, which at the start of the next school year brought the size of our department up to six full-time faculty. During the 2004-05 academic year, we were the top department in the social sciences in terms of growth, became one of the top departments on campus in SCHs per

faculty, and the top department at the university in cost per graduate. This was an appreciative change for a department that faced possible elimination after the 1994-95 school year.

- (2005-06) The department underwent the last formal program review. Most significantly, the geography department became “normalized,” meaning the program was returned to the normal status of a department and the chair began a usual 3-year term with a review at the end of that term. We also launched a new global studies emphasis. This option duplicates almost exactly the already-existing geography teaching major, but does not require any education courses. Several students had expressed interest in just such a program, which would be intellectually appealing to some and for others would be helpful in the travel and tourism profession.
- (2006-08) Several tenured faculty received sabbatical leaves prior to budget constraints in spring of 2009. Research efforts focused on transportation planning and climate change (see Appendix E). SCH figures dipped somewhat over the two year period (see Appendix A).
- (2008-09) Following a strongly supportive review, the chair accepted a second 3-year term and continued to guide the department toward continued stability and success. A sixth faculty member was added as full time, tenure track. Several geography classes are listed as requirements for the Environmental Studies Minor, including Natural Environments of the Earth Field Studies (GEOG 1001) (a one-credit outdoor lab to accompany GEOG 1000). Another field course involving orienteering and GPS use is added (GEOG 1002, Map Reading and Land Navigation). Following the economic downturn in the fall of 2008, the University required that most, if not all, departments spend any surplus monies in their accounts. As a result, a variety of expenditures were made: stockpiling of supplies (mainly paper), large format printer for the cartography lab, copy machine for the main office, equipment for the new GEOG 1001 field studies course and other field courses (e.g., remote sensing thermometers, compasses, etc.).
- (2009-Spring 2011) GEOG 1000 physical science general education learning objective assessment completed. Course enrollments rebound to 6247 SCHs and the number of graduates jumps to 23 for AY 2010-2011. New physical science general education course taught for the first time (GEOG PS 1400 The Science of Global Warming).
- (Fall 2011) After 17 years of outstanding service, the former chair has stepped down to allow for a new chair under the leadership of a new dean of the College. The change in leadership was undertaken at this time to allow for overlap with the incoming chair and the outgoing chair before his retirement. The department recently arranged an agreement with the WSU Honors program to have a Geography Honors degree offering. GEOG 1300 and 1520 social science general education learning objective assessment was recently approved by the University Curriculum Committee. Our number of majors reaches 80, a near all time high.

PROGRAM DESCRIPTION AND ANALYSIS

A. Program Mission Statement

The mission of the geography department is to provide students with an overview of the discipline, specific skills that will help them in their careers, and knowledge that will help them organize and maintain an effective philosophy of life that reflects an understanding of their natural and cultural surroundings.

Consistent with the above, the following are goals that the department strives to achieve:

1. To provide students with knowledge about the earth's natural environment and its relationship to society.
2. To provide students with knowledge about the world's peoples, nations, cultural environments, and spatial organization.
3. To provide students with a good grounding in the modern technical skills of the discipline, including computer cartography, spatial analysis, spatially-oriented quantitative methods and techniques, and geographic information systems.
4. To provide (some) students with training emphasizing the understanding of the planning profession and issues related to that field.
5. To instill within each student an appreciation for the great variety of cultural forms and ways of thinking throughout the world, and to help students formulate a world view that uses this appreciation to become responsible citizens in America.

Meeting these objectives will equip students (the department's primary constituents) to function within American society as informed and enlightened citizens, as well as equipping them with specific job skills that help them gain employment and/or admission into graduate schools. These goals are also major goals of the university as a whole.

B. Curriculum

Degrees and Courses

The Geography Department supports programs that enable students to earn either a Bachelor of Science or Bachelor of Integrated Studies degree. Majors exist in geography and geography teaching. Within the geography major, the department supports special emphases in Asian studies, Latin American studies, urban and regional planning, ethnic studies, global studies, cartography, and environmental studies. These emphases within the geography program include courses in the geography department as well as courses from neighboring fields. Geography also provides coursework that contributes to a number of different fields that are stand-alone programs: the ethnic studies and environmental studies concentrations for the Bachelor of Integrated Studies (BIS) program, the urban planning major and minor, the Asian studies minor, the Latin American studies minor, and the European studies minor. Additionally geography courses fulfill program requirements in other departments such as the geology major, the applied environmental geoscience major, the earth science teaching major, and the geospatial analysis minor within the Geosciences department; the international economics major within the Economics department; the archaeological technician program within the Anthropology and Sociology department; the Utah State Office of Education Utah studies certification programs; the social science composite teaching major; the public history emphasis administered by the History department; and most recently the Environmental Studies minor.

Geography offers a number of courses that satisfy university general education and diversity requirements. These include GEOG PS/SI 1000 (Natural Environments of the Earth), GEOG SS/DV 1300 (Places and Peoples of the World), GEOG PS 1400 (The Science of Global

Warming: Myths, Realities and Solutions), GEOG SS/DV 1520 (Geography of the U.S. and Canada), GEOG DV 3540 (Geography of Latin America), GEOG DV 3590 (Geography of Europe), GEOG DV 3620 (Geography of Russia), GEOG DV 3460 (Geography of Asia), GEOG DV 3660 (Geography of China and Japan), GEOG DV 3740 (Geography of Africa), GEOG SI4050 (Quantitative Methods in Geography), and GEOG SI 4990 (Research Seminar in Geography). See www.weber.edu/geography for complete descriptions of all geography courses.

The department has one course offered by distance education: GEOG 1000 (Natural Environments of the Earth). The department also has made plans to develop three online courses, including GEOG 1000 (Natural Environments of the Earth), GEOG 1300 (Places and Peoples of the World), and GEOG 1520 (Geography of the U.S. and Canada). GEOG 1300 will be taught on line this spring semester, 2012. Multiple sections of these three courses are also offered at off-campus locations during the Spring, Fall, and Summer terms.

Field courses, study abroad and other experiential-based learning opportunities are another key component of the geography curriculum. These include GEOG 1001 (Natural Environments Field Studies), GEOG 1002 (Map Reading and Land Navigation), and GEOG 4950 (Advanced Regional Field Studies). GEOG 4950 involves three to four day excursions for field study in Utah and the Intermountain West, as well as study abroad trips (most recently to Rwanda, Ghana and Togo).

C. Student Learning Outcomes and Assessment

Evidence of Learning: General Education Courses

The assessment of general education courses in geography was begun in 2006 with the identification of learning objectives for all social science courses and physical science courses. Introductory level geography courses being assessed include GEOG 1000, 1300 and 1520.

Assessment of GEOG PS/SI 1000:

In 2010, our physical science gen. ed. course, Natural Environments of the Earth (GEOG 1000) was reviewed by the University Curriculum Committee with the following general learning outcomes identified for natural science courses:

1. **Nature of science.** Scientific knowledge is based on evidence that is repeatedly examined, and can change with new information. Scientific explanations differ fundamentally from those that are not scientific.
2. **Integration of science.** All natural phenomena are interrelated and share basic organizational principles. Scientific explanations obtained from different disciplines should be cohesive and integrated.
3. **Science and society.** The study of science provides explanations that have significant impact on society, including technological advancements, improvement of human life, and better understanding of human and other influences on the earth's environment.
4. **Problem solving and data analysis.** Science relies on empirical data, and such data must be analyzed, interpreted, and generalized in a rigorous manner.

Specific learning outcomes for physical science courses include:

1. **Organization of systems:** The universe is scientifically understandable in terms of interconnected systems. The systems evolve over time according to basic physical laws.
2. **Matter:** Matter comprises an important component of the universe, and has physical properties that can be described over a range of scales.
3. **Energy:** Interactions within the universe can be described in terms of energy exchange and conservation.
4. **Forces:** Equilibrium and change are determined by forces acting at all organizational levels.

Methods of Measurement for GEOG 1000 Assessment

Assessment of learning objectives is being conducted based on **results from homework assignments and exam questions** from GEOG 1000. Sample assignments and exam questions used to evaluate specific outcomes are listed in **Appendix C**. Findings are still inconclusive at this point, but will be forthcoming in 2012.

Assessment of GEOG SS/DV 1300 and GEOG SS/DV 1520:

Learning outcomes and objectives for Places and Peoples of the World (GEOG 1300) and Geography of the United States and Canada (GEOG 1520) include the following skills:

1. Written, oral, or graphic communication
2. Critical thinking, cognitive learning, and individual or group problem solving

Students taking Geography 1300 gain written communication skills through the process of writing term papers, essays and other writing assignments. Class discussions and small group discussions are pivotal to developing skills in **oral communication** and **critical thinking**.

Graphic communication is practiced through extensive use of maps and graphic display of geographic data. Though the latter is certainly not unique to geography classes, it is the main tool by which students of geography learn about the spatial perspective in the social sciences (see further discussion below).

More broadly stated learning outcomes for the two courses include the following:

1. Describe a social science approach to studying and understanding human behavior.
2. Explain the interactions between individuals and their sociocultural and natural environments.
3. Apply a social science perspective to a particular issue and identify factors impacting change (past or present).

Methods of Measurement for GEOG 1300 and 1520 Assessment

Assessment of learning objectives is being conducted based on **results from homework assignments and exam questions** from both courses. Sample exam questions used to evaluate specific outcomes for GEOG 1300 are listed in **Appendix C**. Findings (also shown in Appendix C) reveal that over 75 % of students in 2010 were able to satisfactorily demonstrate learning associated with the specified objectives and outcomes.

Assessment of Courses within the Major and the Overall Program

The Geography Department instituted a learning outcomes assessment procedure beginning in AY 2000 that identified some areas of strength and weakness in our program. We devised several procedures for self-evaluation, including exit interviews with graduating seniors, questionnaires sent out to recent graduates, the attendance of all faculty at the Spring Research Seminar oral presentations by students (each of which were critiqued by the faculty), and a multiple choice test given to the students in our senior seminar. We also attempted to respond to student comments and to some of the results that we discovered in the surveying of our seniors.

Although test results (gathered since the spring of 2001) have been somewhat inconclusive, several areas were found that we felt might be addressed. There were six questions on our assessment exam that more than half the students missed. These were all questions covering material from our upper division regional courses. It was decided that those instructors teaching upper division regional classes should insure that the concepts that had been missed on the 2001 exam should receive a little bit more attention in classes during the 2001-2002 school year. During the spring 2002 semester a second exam was given (also to our senior seminar students, many of whom had taken an upper division regional class during the past year). The results on the 2002 test showed some improvements from the previous year, although the overall test scores were not significantly different. On three of the questions that were singled out there was improvement (.50 to .18 wrong, .85 to .54 wrong, and .50 to .27); on two there was no change; and on one there was a decline (.50 to .72 wrong). We would like to think some of the improvement was the result of our somewhat lengthier treatment in class of the subjects involved. We continue to focus our attention on these specific subject areas.

The tests discussed above were meant to help assess our upper division courses, but not all students take all the same upper division classes, so we now focus primarily on assessment of the two upper division courses required for all majors: Quantitative Methods in Geography (GEOG 4050) and the Senior Research Seminar (GEOG 4990). All upper division courses are assessed upon completion each semester by individual faculty members who specialize in the content area for the given course. All syllabi clearly articulate learning goals or outcomes and exam questions are routinely analyzed and reviewed for the assessment of learning associated with specific outcomes.

Assessment of GEOG 4050 and 4990:

The following learning outcomes, similar to those used in general education courses, are used in the assessment of GEOG 4050 and GEOG 4990: 1) Problem solving and data analysis; 2) Written, oral, or graphic communication; and 3) Critical thinking, cognitive learning, and individual or group problem solving. Assessment of GEOG 4050, in the form of exam results, has revealed that all students learn how to form research questions, state hypotheses, and use statistical testing of data sets to test validity of hypotheses (i.e., accept or reject a null hypothesis). All students learn how to use SPSS software to conduct statistical tests. Results from statistical analyses are presented in graphic and written form, then discussed and critiqued using critical thinking skills. Test results thus far indicate that all students are meeting these outcomes with an expected spectrum of mastery, i.e., some students score higher than others on

exam items designed to assess learning outcomes. In the Research Seminar (GEOG 4990) students give oral presentations of their research projects with geography faculty in attendance to critique content and performance. Thus far, 92 % of graduating geography majors have been able to satisfactorily (demonstrated by a grade of C or higher) conduct research by stating research hypotheses, testing hypotheses and drawing meaningful conclusions. Almost all student research projects involve some form of cartographic representation of social and, or cultural phenomena. Some theses are of publishable quality and are presented at the National Conference for Undergraduate Research (NCUR). In an effort to prepare students for presentations at the NCUR, we are considering offering the seminar during fall semester instead of spring.

Overall Program Assessment:

Exit interviews of students completing their geography degrees revealed that all of them were highly pleased with the education they had received at WSU and that their degrees would aid them significantly in their future careers. They also appreciated personal attention given them by faculty and the opportunities that internships gave them. In exit interviews and informally during the school year, some students voiced concerns about the quality of their experience in the department. These included (1) too few upper division courses being given during the prime morning hours, (2) dangerous classroom conditions (a student was almost struck with a piece of concrete debris during roof repairs), (3) not enough GIS training in the department, and (4) no place to sit before or in between classes.

More recent feedback over the past two years indicates that students find the distribution of upper division classes at different times of the day to be adequate. Some majors request upper division classes during the summer, but we have not been able to draw enough students to offer such courses. In response to item #2 above, after a year of extreme disruption to classes, e.g., drilling for roofing materials that made it next to impossible to lecture, the roof was repaired. Couches and chairs in the hallways now provide students with places to sit, so they no longer sit or lie down on the floor. Also, additional computers were obtained and added to the department computer lab. Following peak enrollments in Cartography (GEOG 3450) during Fall 2011, another section of the course has been added to the class schedule for Spring 2012. A newly hired adjunct instructor will teach the course on the Davis campus. Advanced Cartography will also be offered during Spring 2012 on the main campus. This will provide students with an opportunity to further their skills in this important growing technology.

Evidence of Learning: High Impact Service Learning

The department offers several courses that involve community based service-learning opportunities. Over the past 12 years, the Land Use Planning classes have involved student work on projects of approximately 250-300 hours of service each year, totaling over 3000 hours of service since AY 2000 alone (projects date back to the late 1980s, long before records were kept by the recently founded Community Involvement Center). As part of the Urban and Regional Planning Program, each semester 10 to 15 students are involved in academic service-learning projects focused on urban and regional planning issues. These course projects are conducted as part of upper-division Land Use Planning courses (GEOG 4410 and GEOG 4420). The

Department has partnered with various community agencies including municipal planning departments, planning commissions and/or city council members. A formal partnership was established with the Ogden City Planning Department in 2000. Several projects since then have involved students in community development, transportation planning, and housing condition surveys.

Over the past 10 years, service-learning projects have also involved the drafting of General Plan revisions for the Cities of Marriott-Slaterville, North Ogden, Sunset, Washington Terrace, and Uintah here in northern Utah. Students also assisted in drafting Open Space Conservation Plans for the Cities of Marriott-Slaterville and Plain City, as well as Morgan County. The land conservation projects allow students to work directly with planning and resource management professionals. These community-based, planning research projects, such as General Plan revisions and Parks, Trails and Open Space plans have been published and adopted for official use by municipalities. Student involvement in these service projects has often led to career opportunities and a deeper sense of commitment to community service for our WSU students. In 2005-2006, land use planning and cartography students worked with transportation planning consultants and WSU officials to develop a Transportation Master Plan for the University (adopted for use in 2007).

Students who have participated in study abroad service projects have often been registered for Individual Research (GEOG 4800). Students are required to complete a self-evaluation that is reviewed by the faculty member sponsoring the project. Several of the projects have been funded in part by the WSU Under-Graduate Research program. One service project, begun in 2006, involved research on alternative transportation in West Africa. The service project aims to bring affordable and reliable bicycle transportation to subsistence farmers and low income family members in Ghana and Togo. In spring 2011, students traveled with a WSU Health Sciences faculty member to central Ghana as part of a humanitarian aid, study abroad experience. Fund raising efforts, including a bike-a-thon and silent auction were led by two geography majors working on their senior research projects that built upon the 2006 study. The two students conducted surveys focused on transportation geography, specifically the mobility of women and health care workers in Ghana. The service component of the project included the repair and shipping of about 45 bicycles from Ogden that were then distributed to recipients throughout Ghana. Another geography service project in 2006 raised money for a well that would supply water for an educational center/orphanage in Rwanda, Africa. A total of \$22,871.95 was raised for the Rwanda Project. Six students traveled with a geography faculty member to Rwanda to assist in the well drilling project and to install solar panels for lighting plus cisterns for water storage.

Another faculty member, accompanied by two WSU students, traveled to Europe during summer, 2011 to participate in a 12-week international service learning program entitled "Global Education Opportunity (GEO)". The GEO program provided these students with the opportunity to spend six weeks attending the Human Rights Commission and World Health Assembly at the United Nations in Geneva, Switzerland. The GEO program is under the auspices of the Worldwide Organization for Women (WOW). WOW is a non-profit company with consultative status at the United Nations. The two WSU students prepared and read statements to the UN

body of member states during the Human Rights Commission. The students also spent the remaining six weeks working with grassroots organizations based in the UK creating health and self empowerment programs for women and children in developing nations.

This same faculty member has been working with WSU's Moving Company and Geography students, in conjunction with Repertory Dance Theatre (RDT-an internationally renowned modern dance company based in Salt Lake City) to create a unique arts/environmental education residency program known as the Ogden Green Map Project for public schools based on the Green Map® system, a global movement encouraging communities to take inventory of their local resources. The Ogden Green Map Project was implemented during the 2010-2011 school year and this year will see a continuation of the program with the creation of a web-based Ogden Green map of our community, which will map sustainability practices, nature, and cultural resources found in our area.

Yet another service project involving a third faculty member resulted in a pamphlet titled "Weber State University Goes Green: A Guide to Sustainability." This was a project started with Geography 3060 (World Environmental Issues) students in spring semester, 2011. The finished product was put together by the geography faculty member and staff from WSU's Energy and Sustainability Office/Facilities Management. It is a guide for the WSU community (students, faculty and staff) with tips and information related to energy, air pollution and alternative transit, waste reduction, water, and shopping with the environment in mind. It was ready for distribution at the beginning of AY 2011.

D. Academic Advising

The department chair does all of the official advising in the departmental programs. There is also an advisor for the urban planning program in the department who is also their urban and regional planning coordinator for the University. Advising is available to all students whenever needed or requested. Students receive an orientation to the department and the discipline from the chair following a student's declaration of the geography major. Much of this information is also disseminated via the departmental website: <http://www.weber.edu/geography/> Students are encouraged to meet with the chair at least once a year, particularly during the year of their intended graduation. Students also visit with the College Academic Advisor. A final graduation evaluation is done at this time and the results are entered into the university's Cat Tracks computer system.

The effectiveness of the department's advising is determined by asking students during their graduation evaluation and exit interview how effective they felt their advising was over their years here at WSU. Usually students indicate the advising they received was fine. Occasionally a student will voice some complaint or a negative comment, as was the case several years ago when one student indicated that faculty in another department (ones who were not formally charged with advising) would refuse to advise (formally or informally) a student when asked something about the program. Since this comment was received, it has been the policy that all geography faculty should do informal advising whenever a student asks a question (with the final advising and clearing for the major and minor being done by the chair).

E. Faculty and Staff

The geography department has six full time faculty and seven part time/adjunct faculty (see Appendix D). One faculty member is under review for progress toward tenure and the other five full time faculty members are tenured. Faculty are very supportive of one another and are mentored by the chair inquiring about their professional progress and how the department might help make their goals more easily attainable. In this regard, during the Fall 2002 semester the \$400.00 ceiling on travel money for one trip to a professional meeting (where a paper is being read) was increased to \$600.00 for a maximum of two trips to professional meetings (where a paper is being presented or where a faculty is a discussant or a panel member). During the Fall 2005 semester, restrictions were further relaxed, allowing faculty to use funds for expenses other than travel for conferences at which a paper was being presented (or similar professional activity). These liberalizations were made so that the resources of the department would be more readily available for professional development (e.g., AAG membership dues).

All full-time and part-time faculty are evaluated by students in classes using standardized forms provided by the University. The results of the evaluations are tabulated by the campus testing center, then reviewed by the chair with the faculty. The chair also tries to sit in on each faculty member's classes at least once a year. Faculty are informed of the chair's opinion following each visit and when turning over a set of student evaluations to each faculty member. The department tries to be very responsive to student complaints. For example, negative student comments on evaluations for an adjunct instructor, followed by the chair's visit to a classroom resulted in the termination of one adjunct faculty member.

Appendix E shows research publications and presentations for full time faculty indicating a strong interest in scholarly activity in addition to an ongoing commitment to excellence in teaching. All faculty members show extensive service records and some have received distinguished awards for their work.

F. Support Staff, Administration, Facilities, Equipment and Library

Secretary

The geography department has one part-time secretary. Once a year the chair meets with the secretary and goes over the university personnel performance evaluation. The secretary is informed about her strong points and her weak points (if there are any). These procedures are made uniform across campus by PREP (Performance Review & Enrichment Program) that is part of the university's Banner computer system. The secretary assists with course scheduling, course evaluations, purchases and other budget related items, and spends a significant amount of time helping with majors verifying requirements for graduation (compiles transcript information reviewed by the department chair and enters the info. into the Cat Tracks advising system. The current secretary has been nominated for an Outstanding Staff award.

Library

The library is used as a learning tool in many different ways. In some classes, students are given reserve reading assignments. In other classes, book reports and research papers are

required that necessitate use of the library's resources. Also for many years the department has spent a great deal of its library budget to purchase back issues of geography journals, which are used in many upper division classes, but particularly in the department's senior research seminar. In this class, students become acquainted with the professional literature in the field and come away with a good understanding of what geography journals exist and how they are ranked as to quality and professional influence.

Facilities and Equipment

The Geography Department maintains a modern cartography, GIS (geographic information systems), remote sensing, and planning laboratory in SS345. The lab includes three powerful, large-monitor computers, two high-speed laser printers, a large-format printer/plotter, a table-top scanner, and complete multimedia capabilities. Geography students enjoy access to a full suite of software in the lab, and as part of our campus-wide GIS license, access to ESRI's ArcGIS 10 software in any of Weber State's campus computer centers. Additionally, advanced geography students are offered a copy of the GIS software for home use. This \$1500 program and extensive data sets are provided at no additional cost to students. The department is also equipped with two portable projectors and laptop computers, for use in teaching and at conferences. All geography classrooms are equipped with in-situ computers and ceiling-mounted projectors for display of computer graphics, satellite images, maps, student presentations, and web-based instruction.

Budget

Each year the University allocates approximately \$2000.00 per faculty member in the geography department (\$11,600 for FY 2011-12). This is used judiciously so that each year the department's unspent funds from the operating budget are added to the department's capital equipment budget and the professional travel budget. Over the years the department has always finished the fiscal year with a surplus. In the past this has been as high as \$5,800.00. Budget support for faculty research is generally low, except when the results are presented at professional meetings or when page charges are levied by professional journals. In these cases there is either departmental or university support to help defray individual faculty members' expenses. The department maintains a budget of about \$1500 annually specifically for field courses. Another account exists for the Urban and Regional Planning Program, but funding has declined due to the lack of money available to planning agencies to budget for general plans and other planning projects. The Budget Analysis Summary in Appendix A shows the very low cost per student FTE (just over \$2500 in 20100-2011).

G. Relationships with External Communities

Speakers and collaborators from off-campus are frequently asked to come to the department and give talks on their areas of expertise. Most recently, renowned geographer, Billy Lee Turner gave a guest lecture as part of a joint visit with Utah State University. The visit was funded, in part by the AAG, and was the second year of the partnership with USU. Guest lecturers are routinely invited into upper-division classes. Community service projects discussed in Part C above, under "High Impact Service Learning," provide details of relationships with

various community partners. Also, faculty members have served, and in some cases, continue to serve on boards, such as Weber Pathways, the Ogden Nature Center, and international organizations such as the Worldwide Organization for Women. Appendix F provides a partial listing of community partners. The department works closely with the WSU Community Involvement Center to expand the number of community partners and to track student involvement with community partnerships.

H. Significant Changes Since the Last Program Review

Changes in Enrollments

The department's enrollment figures since 2005 have fluctuated (see Appendix A). Despite a considerable drop in student credit hours in geography courses from 2007-2008, our numbers appear to be rebounding. The dip in SCHs may have been, in part, due to several faculty sabbatical absences and the distinct possibility that SCH counts by WSU Institutional Research (IR) were based on incomplete estimates. This discrepancy in statistical summaries provided by IR and records from individual departments in the college has been a problem noted in the past. For example, IR estimates of geography graduates do not always include geography teaching majors and students with geography as part of a dual major (Appendix A shows discrepancies between IR and departmental estimates). Estimates appearing in Appendices A and B therefore should be interpreted with caution. Regardless of accuracy, these semester by semester fluctuations may be the result of several factors. First, course offerings vary with sabbatical leaves and the number of classes taught by adjunct faculty, which are not always counted in SCH or FTE totals. The restructuring of the geography curriculum during the 1998-99 school year, the creation of new degree tracks, new courses (including courses from other departments), new course titles and descriptions, and new scholarships for students may have all been contributing factors that exert an effect on SCH estimates. Creation of our new physical science general education course, The Science of Global Warming (GEOG PS 1400) will also help to boost SCHs. While enrollments have varied over the past five to six years, the number of majors and graduates has steadily risen (again, please see Appendices A and B).

Ongoing Course and Program Assessment

Arguably one of the most significant changes made since 2006 has been a response to the University's need for greater course and program assessment. While most of the processes and preliminary results for outcomes assessment are discussed above in Section C under the heading of "Student Learning Outcomes Assessment," there are several points that should be highlighted:

- The geography department has instituted an outcomes assessment procedure that includes exit interviews, questionnaires sent out to recent graduates, tracking of graduates who were admitted to graduate school, and the attendance of all faculty at oral presentations by students in the department's senior seminar. The administration of a short exit examination to all graduating seniors was discontinued because of unresolved difficulties in how to interpret the results.
- Number of graduates entering graduate programs and careers in geography (Appendix G) is a clear indication of the success of the program.
- Advising is available from all faculty to all students whenever needed or requested. Students are oriented into both the department and the discipline from the chair following a student's

declaration of the geography major. Students are encouraged to meet with the chair at least once a year. Other faculty also advise students when requested.

- Faculty evaluation, as described above in Part E, is done by the chair via the tallying and printing of faculty evaluations administered by the dept. secretary and processed by the campus testing center. Numerous other occasions of informal mentoring and critique also occur during the school year as well as visits to classrooms.
- Ongoing discussion and consideration of specific recommendations made by the last review committee (completed in April, 2006):
 - 1) Upgrade the computer hardware on a regular basis, perhaps every three years.
 - 2) Invest energy and resources in the Geography Teaching Major, for there is an opportunity for the Geography Department at Weber State to become the Center of Geographic Education in the state of Utah. In fact, the college and/or department should make every effort to attract the Utah Geographic Alliance (UGA) to campus and even to make it a partner with the Social Science Institute! The UGA now has its \$1,000,000 Endowment for permanent future funding! This move would also put WSU at the center of geography education within the state of Utah and both provide a direct pipeline to NGS funding as well as a national presence.
 - 3) The Geography teaching major should include a “Teaching Methods in Geography” course to be taught on a regular/annual basis.
 - 4) Now that the size of the full time faculty is stable, there is a need to focus on a selected sub-set of specializations within the discipline of geography. The department should concentrate its teaching effort in areas in which it has a comparative advantage and not continue to spread itself thinner and thinner by offering a large set of course offerings. Once accomplished, the Head, the faculty, and the Dean could jointly determine the areas of specialization, and then future faculty could be hired so as to strengthen these specializations.

The department’s responses to these recommendations have been as follows (reviewed again during a faculty meeting in October, 2011):

- 1) Periodically upgrade the department’s computer cartography and geographic information systems laboratory with new equipment and software. Major acquisitions continue to rely on equipment recently replaced in the university’s student computer labs or successful technology grant writing, and on funding possibilities that result from savings out of the department’s operating budget. New developments in this area are likely to emerge with future plans to remodel the Social Sciences Building (see “Future Plans” below).
- 2) Interest in our teaching major remains a function of the number of students enrolled in the WSU Department of Education’s certification program to teach geography at the secondary level. A scholarship specifically for teaching majors has continued to draw students into the program. The Utah Geographic Alliance (UGA, supported by the National Council for Geographic Education and the National Geographic Society) services high school and middle school teachers, but funding has diminished significantly since 2005. Much of the money that was available was earmarked for summer workshops and presentations to teachers and did not immediately benefit students. It also has little potential for attracting new majors and potential graduates to our department. Furthermore, the administration of this program takes up vast amounts of time and resources, i.e., money. This is a major reason why our department terminated its involvement in such a program many years ago.

3) Every year we have only between one and four geography teaching majors which is not enough to support a teaching methods course specific to geography. Also, we have no faculty members currently trained or interested in teaching such a course.

4) The department is not in any way spread thin. Every semester our upper division geography courses have at least 8 or 10 students and as many as 40 students. When last quantified, the average size of our twelve upper division classes was 15.6. This number is typical of every semester's enrollments and it is designed to be that way (i.e., by limiting the number of upper division courses offered and scheduling them so they do not to compete with each other in the same time slots). It is true that in our various emphases we accept many classes from cognate disciplines. But many of these courses, at other universities, are taught in geography departments. The committee's recommendation to hire faculty in specific a priori specialties is exactly the opposite of how we have operated over the last ten to fifteen years (with increasing success). Generally we specify only two introductory teaching areas that candidates should be able to teach. We then hire the one who, among other things, does the best in front of a class (with the hiring committee sitting with the students). We then gradually incorporate that person's research and teaching specialties into our department curriculum. This has led to some very interesting curriculum additions and continued strengthening of faculty expertise. For further discussion, see item #3 below titled "Faculty goals."

Future Plans

1) Course assessment: We will continue the assessment process for all courses, both lower division and upper division. Results from "Chi Tester" exam questions will be analyzed for introductory classes being used to assess general education course learning objectives. Course evaluations will continue to be reviewed by the department chair and discussed with individual faculty after review by the dean. Quantitative Methods in Geography (GEOG 4050) will be changed to GEOG 3600 to be consistent with other statistics classes in the college. Our hope is that students will then be aware that the Quantitative Methods course is to be taken *before* the senior research seminar (GEOG 4990). This proposed change will go before the Curriculum Committee in spring, 2012. There are no immediate plans for new course development other than adding on line versions of GEOG 1000 and eventually GEOG 1520. We plan to build upon experiential learning opportunities through continued field course offerings and community-based service learning projects.

2) Program assessment/expansions: Program revision will be ongoing as we meet to discuss graduate exit interviews and feedback from students in the senior research seminar class. Expansion of internship opportunities, ongoing career placements, and graduate program placement for graduates will remain a high priority for the program. We hope to have at least one or two majors graduate with honors in geography each year. We also will be working to increase enrollments in our classes and to increase our number of majors. More majors will increase the number of upper division courses that can be offered by the department (in response to the wishes of some of our students expressed in their exit interviews). In the past, our strategy has been to keep SCHs for introductory level classes as high as possible in an effort to attract new majors. However, some of the lower division sections have been slightly under-enrolled (15-20 students) in comparison to other sections (80+ students). As a result, we will likely offer

fewer sections of introductory level classes, which will naturally occur as we have a steady rotation of full time faculty applying for, and hopefully taking sabbatical leaves. Another factor influencing face to face introductory class enrollments will be online course offers (our first scheduled GEOG 1300 course online has recently closed out at 40 students, as of 11/22/11).

3) Faculty goals: With all but one of six full time faculty already tenured, the department will remain committed to supporting excellence in teaching, individual faculty research and community service. Several members of the faculty plan to apply for sabbatical leave in the coming years. We view leaves for the pursuit of research interests and service to be vital to the strengthening of course offerings and the overall geography program. Consistent with incentives being offered by the college, faculty members are strongly encouraged to seek external funding (in addition to building upon a strong record of internal funding). Ideally, we would expand our department faculty to seven members with the addition of another faculty member who can help teach and expand the department's GIS program. Given the current economic trends, we hope to at least retain the current sixth faculty position which may open upon retirement of a senior faculty member in the coming years. We are planning on another faculty retreat in September, 2012 since the retreat to the City of Rocks Reserve in Sept., 2011 was a success. The retreat provides an important chance for faculty to consider future plans for the program without the encumbrance of "official" departmental decision making. No significant departmental policy changes are anticipated. The Association of American Geographers' Healthy Department Initiative will continue to provide guidance for faculty support and program building.

4) Geography Alumni outreach: If we can identify a coordinator, we would like to support formation of a future Geography Alumni Association. Reasons for forming such an association include networking opportunities for geography graduates seeking career openings and changes, pursuit of graduate study, and possible future financial support (donations) for the geography program (scholarships, etc.). Finding graduates with the time and willingness to commit to an association remains a challenge, let alone the difficulty of keeping addresses, e-mail, etc. of graduates up to date.

5) Facilities/Cartography Lab: Plans for a new Social Sciences building or major remodeling will include the possible development of a cartography/GIS lab. Currently, we have one full time faculty member who teaches a full load and oversees the cartography program. With rising demand, we would need another full time, or possibly part time instructor or staff person to maintain a cartography lab (computers, scanners, printers, digitizers, and software) and possibly teach classes. Demands for a well-equipped lab have increased, particularly as the department honors our agreement with the Department of Geosciences to continue to teach the 3000 level Cartography/GIS classes that meet the needs of students going on to specialize in Geomatics and Geospatial Analysis. Many other disciplines (Botany, Anthropology, Criminal Justice, Environmental Studies, and the Health Sciences for example) have encouraged their students to include geotechnical tools such as cartography and GIS in their field of study. These classes have seen substantially increased enrollments. Additionally, the department maintains and hopes to expand a growing supply of field gear and equipment: GPS units, compasses, transceivers, field maps, atmospheric instruments (thermometers, barometers, humidity sensors, etc.), and camping equipment. These too require more space and maintenance.

APPENDIX A: DEPARTMENT OF GEOGRAPHY SCH & FTE STATISTICS

Student and Faculty Statistical Summary 2005-2011

(data provided by Institutional Research*)

	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11
Student Credit Hours Total	5,636	4,991	4,548	4,808	5,592	6,247
Student FTE Total	187.87	166.37	151.60	160.27	186.40	208.23
Student Majors*						
Geography	53 (76)	55 (63)	54 (59)	52 (67)	61 (63)	62 (65)
Program Graduates*						
Bachelor Degree	10 (12)	5 (22)	19 (31)	17 (18)	16 (17)	17 (23)
Student Demographic Profile	53	55	54	52	61	62
Female	15	16	17	15	20	25
Male	38	39	37	37	41	37
Faculty FTE Total	8.54	9.20	8.58	8.58	9.01	NA
Adjunct FTE	2.54	3.20	2.97	2.9	2.9	NA
Contract FTE	6	6	5.61	5.68	6.11	NA
Student/Faculty Ratio	22.00	18.09	17.67	18.68	20.69	NA

*Excludes geography teaching majors and students with geography as part of a dual major. Estimates in parentheses include teaching and dual majors from departmental records. As of Nov. 15, 2011, there were 78 student majors and 3 BIS student concentrations in geography.

Student and Faculty Statistical Summary 2000-2005

(data provided by WSU Institutional Research and STAARZ, 2005)

School Year	2000-01	2001-02	2002-03	2003-04	2004-05
Student Credit Hours (semester)	6,349	6,452	6,701	6,842	6,839
Student FTE	140.94	143.36	148.91	151.89	151.82
Student Majors	54	56	76	74	80
Student Minors	14	17	25	32	28
Program Graduates (Majors)	14	11	23	22	17
Full Time Faculty	2	3	4	4	6

Faculty Teaching Equivalents 2000-2005

(data provided by Institutional Research)

	2000-01	2001-02	2002-03	2003-04	2004-05
Adjunct FTE	2.51	2.23	1.47	3.25	3.14
Contract FTE	3.00	4.00	5.00	4.02	5.50
Tenure Track/Tenure FTE	5.51	6.23	6.47	7.27	8.64
Total FTE (semester)	26.43	23.01	23.02	20.91	17.59

Financial Analysis Summary

(data provided by Provost's Office)

Department of Geography					
Cost	06-07	07-08	08-09	09-10	10-11
Direct Instructional Expenditures	446,642	497,429	515,804	499,399	524,547
Cost Per Student FTE	2,685	3,281	3,218	2,679	2,519
Funding	06-07	07-08	08-09	09-10	10-11
Appropriated Fund	446,642	497,429	515,804	499,399	524,547
Other:					
Special Legislative Appropriation					
Grants of Contracts					
Special Fees/Differential Tuition					
Total	446,642	497,429	515,804	499,399	524,547

APPENDIX B: GEOGRAPHY MAJORS AND GRADUATES STATISTICS

Number of Geography Majors and Graduates (1990 to present):

(semester or quarter with highest figure, updated Sept, 2011)

2011 fall:	Majors	__78__	Major Grads	NA	Minors	__17__	Faculty	__6__	Adjuncts	__7__
2010-2011:	Majors	__65__	Major Grads	__23__	Minors	__21__	Faculty	__6__	Adjuncts	__7__
2009-2010:	Majors	__63__	Major Grads	__17__	Minors	__14__	Faculty	__6__	Adjuncts	__8__
2008-2009:	Majors	__67__	Major Grads	__18__	Minors	__18__	Faculty	__6__	Adjuncts	__8__
2007-2008:	Majors	__59__	Major Grads	__31__	Minors	__11__	Faculty	__6__	Adjuncts	__7__
2006-2007:	Majors	__63__	Major Grads	__22__	Minors	__18__	Faculty	__6__	Adjuncts	__6__
2005-2006:	Majors	__76__	Major Grads	__12__	Minors	__20__	Faculty	__6__	Adjuncts	__8__
2004-2005:	Majors	__80__	Major Grads	__17__	Minors	__28__	Faculty	__6__	Adjuncts	__9__
2003-2004:	Majors	__74__	Major Grads	__22__	Minors	__32__	Faculty	__5__	Adjuncts	__10__
2002-2003:	Majors	__76__	Major Grads	__23__	Minors	__25__	Faculty	__5__	Adjuncts	__7__
2001-2002:	Majors	__56__	Major Grads	__11__	Minors	__17__	Faculty	__4__	Adjuncts	__7__
2000-2001:	Majors	__54__	Major Grads	__14__	Minors	__14__	Faculty	__4__	Adjuncts	__5__
1999-2000:	Majors	__41__	Major Grads	__11__	Minors	__19__	Faculty	__4__	Adjuncts	__3__
1998-1999:	Majors	__28__	Major Grads	__13__	Minors	__20__	Faculty	__4__	Adjuncts	__4__
1997-1998:	Majors	__19__	Major Grads	__7__	Minors	__25__	Faculty	__4__	Adjuncts	__4__
1996-1997:	Majors	__30__	Major Grads	__16__	Minors	__23__	Faculty	__3__	Adjuncts	__4__
1995-1996:	Majors	__41__	Major Grads	__12__	Minors	__10__	Faculty	__3__	Adjuncts	__5__
1994-1995:	Majors	__55__	Major Grads	__14__	Minors	__46__	Faculty	__3__	Adjuncts	__5__
1993-1994:	Majors	__41__	Major Grads	__7__			Faculty	__5__	Adjuncts	__4__
1992-1993:	Majors	__37__	Major Grads	__7__			Faculty	__5__	Adjuncts	__4__
1991-1992:	Majors	__35__	Major Grads	__9__			Faculty	__5__	Adjuncts	__3__
1990-1991:	Majors	__29__	Major Grads	__8__			Faculty	__5__	Adjuncts	__3__
1989-1990:	Majors	__28__	Major Grads	__8__			Faculty	__4__	Adjuncts	__3__

APPENDIX C: GEOGRAPHY COURSE ASSESSMENT SAMPLES

NATURAL SCIENCES LEARNING OUTCOMES

(NS Learning Outcome 1) Nature of science-Scientific knowledge is based on evidence that is repeatedly examined, and can change with new information. Scientific explanations differ fundamentally from those that are not scientific.

Regardless of who teaches the class, GEOG 1000 includes a discussion of the nature of science and the scientific method early in the semester. A typical example of the approach used is to pose a question and ask students for scientific versus non-scientific answers, sparking a conversation about requirements such as testability and consistency with existing information, and the need to keep testing and re-examining hypotheses in the light of new information.

Sample assessment tools:

Sample 1: Homework assignment

One example is a homework assignment in which students build a hypothesis about how rivers in two different parts of Utah will respond to a rainstorm, then test the hypothesis by analyzing measurements of stream flow changes over time (See **Appendix B**). Based on material from class, students should expect that a river in southern Utah will respond quickly to a rainstorm ('flash flood'), while a river in northern Utah will respond more slowly, assuming the storms are equal. However, the data, if analyzed correctly, give the opposite result. Students are asked whether or not their results support their hypothesis, and if not, what other factors need to be considered. The more observant students notice that the drainage basins of the two rivers are of very different sizes, a factor not considered in the hypothesis-building stage of the homework. Typically some 20% or so of students completing this exercise blithely claim that their results support their hypothesis, when the opposite is true.

Sample 2: Examination questions

1. Our model of the Earth's interior includes layers such as the core, asthenosphere, mantle and lithosphere. How have we built up this picture of the Earth's layered interior?
 - a. Direct sampling of *each layer* using very deep drilling.
 - b. Work in Earth's deepest caves.
 - c. Historical documents dating from over 3000 years ago.
 - d. Indirect evidence derived from the analysis of seismic (earthquake) waves.
2. Which of the following is **not** a source of evidence for the theory of plate tectonics?
 - a. The pattern of the ages of rocks on the ocean floor
 - b. The geographical pattern of earthquake activity
 - c. The internal structure of the Earth, deduced from earthquake waves
 - d. The location of deserts on the Earth's surface
3. The acceptance of a scientific idea or principle is based on _____.
 - a. Statements by Experts
 - b. Evidence and Testing
 - c. Movies
 - d. Guesses
4. T/F Continental Drift has been an accepted theory for centuries.
5. T/F Scientists have proven the exact nature of the interior of the Earth.

(NS Learning Outcome 2) Integration of science-All natural phenomena are interrelated and share basic organizational principles. Scientific explanations obtained from different disciplines should be cohesive and integrated.

Concepts that explain patterns and processes across broad disciplinary boundaries, such as ecology, hydrology and meteorology, are fundamental to an integrative discipline such as physical geography. Study of the technical properties of energy (including the laws of thermodynamics) is one way to address this learning outcome (see also PS learning outcome #3, below); another is to consider similar surface features being sculpted by both air and water, producing similar features in desert and river environments.

Sample assessment tools:

Sample 1: Examination questions

1. Why are the transportation and erosional processes in rivers quite similar to the processes found in desert environments?
 - a. Geographers ran out of names for things.
 - b. Water and air behave in somewhat similar ways because they are both fluids.
 - c. Deserts are not really all that dry; in fact, water erosion is very common.
 - d. The intense sunshine in desert areas causes rock to melt and flow like water.
2. Freeze-thaw weathering will be most effective in which of the following locations?
 - a. Extremely cold places such as the edge of the Antarctic ice sheet
 - b. Desert environments where there is very little water, such as southern Utah
 - c. Low-latitude rainforest environments
 - d. High mountains in the mid-latitudes, where temperatures often fluctuate above and below freezing
3. Most (but not all) life on Earth is ultimately dependent on sunlight for its energy source. **Why** is most life ultimately dependent on sunlight for its energy source?
 - a. Sunlight is necessary for green plants to grow; herbivores eat green plants; carnivores eat herbivores.
 - b. Because all animals soak up solar energy through their skins
 - c. Because all plants and all animals generate food for themselves through photosynthesis
 - d. None of the above explains why almost all life is dependent on sunlight
4. Life can exist in the absence of sunlight, at the very bottom of the oceans near hydrothermal vents (mid-ocean ridges). What process allows an ecosystem to exist here?
 - a. Photosynthesis
 - b. Respiration
 - c. Chemosynthesis
 - d. All of the above
5. In the functioning of ecosystems, the 10% rule indicates that:
 - a. the numbers of individuals in a trophic level drops by 10% for each step up the food chain.
 - b. pesticides typically kill 10% of the population in any given trophic level
 - c. 10% of the world's population subsists entirely on a vegetarian diet
 - d. 10% of the energy stored in a trophic level is available to the next level up the food chain.

(NS Learning Outcome 3) Science and society-The study of science provides explanations that have significant impact on society, including technological advancements, improvement of human life, and better understanding of human and other influences on the earth's environment.

Geography's integrative nature means that societal implications of physical geographic processes are readily apparent, for example as with earthquake and volcano hazards or global warming. Physical geographic implications of societal actions are also readily examined, as with tropical deforestation, for example.

Sample assessment tools:

Sample 1: Homework assignment

A homework assignment dealing with natural hazards (see **Appendix C**).

Sample 2: Examination questions

1. Which of the following is a good argument for not destroying tropical rain forests?
 - a. The soil is poor and will not support the agriculture that often replaces rain forests.
 - b. There may be a cure for cancer (or other important drugs) to be found in the rain forest.
 - c. The rain forests help reduce the amount of carbon dioxide in the atmosphere.
 - d. All of the above are good reasons for not destroying tropical rain forests.
2. Which of the following hazards could be associated with a volcanic eruption?
 - a. Lava bombs
 - b. Lahars
 - c. Nuées ardentes
 - d. All of the above

3. If an earthquake suddenly hit the Wasatch Front, liquefaction would be most likely to take place:
- on solid rock surfaces
 - on unconsolidated sediments down in the Salt Lake valley and up on the benches
 - high up in the canyons (Weber Canyon, Ogden Canyon, Big and Little Cottonwood Canyons)
 - Both (b) and (c)

(NS Learning Outcome 4) Problem solving and data analysis-Science relies on empirical data, and such data must be analyzed, interpreted, and generalized in a rigorous manner.

Quantitative analysis is a key part of physical geography, and is typically incorporated into GEOG 1000 through homework assignments. Examples include the rivers homework noted above for NS learning outcome #1 (nature of science). Others are provided below.

Sample assessment tools:

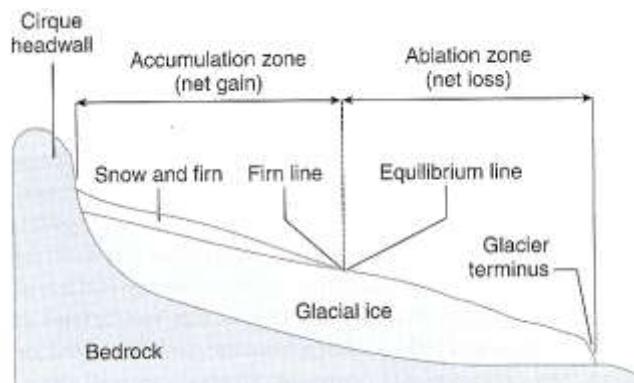
Sample 1: Homework assignment

Part 1: Study the glacial ice profile diagram shown below and in your text (p. 530). Read pages 530-532 (Chapter 19) of your text and concentrate your reading on glacial mass balance.

Part 2: Using the following formula $B_n = B_s + B_w$, where B_n is net balance, B_s is the summer balance and B_w is the winter balance, calculate the glacial net balance for Emmons Glacier at the various elevations.

Part 3: Discuss the general relationship between altitude and net mass balance.

If a glacier continues to diminish over many years, how will the equilibrium line respond? Why?



Elevation (feet)	Glacial Mass Balance-Emmons Glacier (units in water equivalent)		
	Bs	Bw	Bn
14,500	0	100	
13,500	0	90	
12,500	-50	85	
11,500	-80	80	
10,500	-135	80	
9,500	-185	90	
8,500	-225	100	
7,500	-243	110	
6,500	-250	75	
5,500	-300	30	

PHYSICAL SCIENCE SPECIFIC LEARNING OUTCOMES

(PS Learning Outcome 1) Organization of systems: The universe is scientifically understandable in terms of interconnected systems. The systems evolve over time according to basic physical laws.

Students are taught the concept of system organization in Natural Environments 1000 during the first lecture of the semester. The following, received from one instructor, is illustrative.

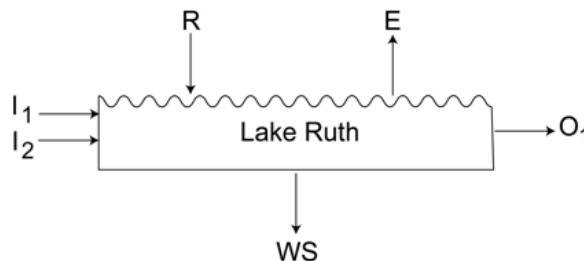
The course begins with defining a system and subsystem. A discussion follows on how the human body is a system that is comprised of subsystems (i.e., the respiratory, and circulation subsystem). The lecture then focuses on identifying Earth's subsystems, such as the hydrosphere, and how these evolve or change over time due to inputs and outputs and how some systems are closed while others are open. Other important concepts include feedback mechanisms that cause change or adjustment in a system. In order to determine if students have learned these concepts, there are a series of assignments given at the beginning of the semester that tests their understanding. Questions on an exam also allow the instructor to assess the progress the student is making with regards to understanding the concepts. **Sample assessment tools:**

Sample 1: Homework assignment

Part 1: Scenic Lake Ruth has two rivers flowing into it from the north. The rivers can be identified at INPUT 1 (I_1) and INPUT 2 (I_2). An additional input is rainfall (R) that occurs over the lake. The lake has three outputs of water: evaporation (E) from the lake's surface; groundwater seepage out of the lake (WS) and water flowing out of a single river to the south of the lake (O_1). See figure below that depicts inputs and outputs.

Part 2: The function of a system can be assessed using a budget approach that evaluates changes of inputs and outputs, and storage in the system. Which formula can be used to calculate the amount of water in Lake Ruth (LR)?

- A. $LR=(I_1+I_2+R)-(E+WS+O_1)$
- B. $LR=(I_1+I_2+E)-(R+WS+O_1)$
- C. $LR=(E+WS+R)-(I_1+I_2+O_1)$
- D. $LR=(I_2+O_1+R)-(E+WS+O_1)$



Part 3: From July 1, 1998 through July 8, 1998 the level of Lake Ruth did not change during that period, 1000 m^3 of water flowed into the lake from river 1 and 1500 m^3 of water entered from river 2. Evaporation during that time was 350 m^3 . Calculate the volume of water that had to flow out of the river at the south end of Lake Ruth plus the amount of ground water. Write an equation and show your calculations. Please circle your answer.

Sample 2: Examination questions

1. The term "system," as defined by geographers, means:
 - a. a set of objects whose size, shape, and temperature can be measured.
 - b. a set of objects linked together by their relationships to one another.
 - c. a set of objects comprised of continents, oceans, forests, and deserts.
 - d. all of these
2. The chain of processes in a system that operate in repeating or changing cycle is called:
 - a. positive feedback.
 - b. negative feedback.
 - c. steady state.
 - d. feedback loop.

3. Equilibrium in most natural Earth subsystems generally means:
 - a. the factors in a system are in a static balance.
 - b. interrelated factors in a system are in a state of continual adjustment to each other.
 - c. that all factors in a system are equally important to the way that the system functions.
 - d. none of these
4. Which of the earth's major "spheres" is most closely associated with non-living rock and mineral material?
 - a. atmosphere b. lithosphere c. hydrosphere d. biosphere
5. Which of the following phenomena represents interaction between the atmosphere and the lithosphere?
 - a. A volcanic eruption
 - b. Lichen growing on a rock
 - c. A river carving a canyon through rock
 - d. None of the above represents interaction between the atmosphere and the lithosphere

(PS Learning Outcome 2) Matter- Matter comprises an important component of the universe, and has physical properties that can be described over a range of scales.

Students are introduced to the basic principles of matter and its various states in the beginning of the course and these are revisited when discussing the Earth's atmosphere or Earth's solid materials, specifically minerals and rocks. Lectures cover arrangements of atoms that can be united into compounds such as the creation of ozone in the stratosphere. For instance, students learn about the atomic structure of ozone, the mechanisms that allow the formation of ozone and how an abundance of ozone molecules make up the ozone layer of the stratosphere. Later in the course students are taught about chemical bonds that hold atoms and molecules together to compose a mineral and how various minerals combine to produce a variety of rock types, which are the fundamental building materials of the Earth's lithosphere.

Sample assessment tools:

Sample 1: Homework assignment questions

What function does ozone play in the support of life on Earth?

Where and how is ozone formed?

At what approximate altitude is the ozone layer found?

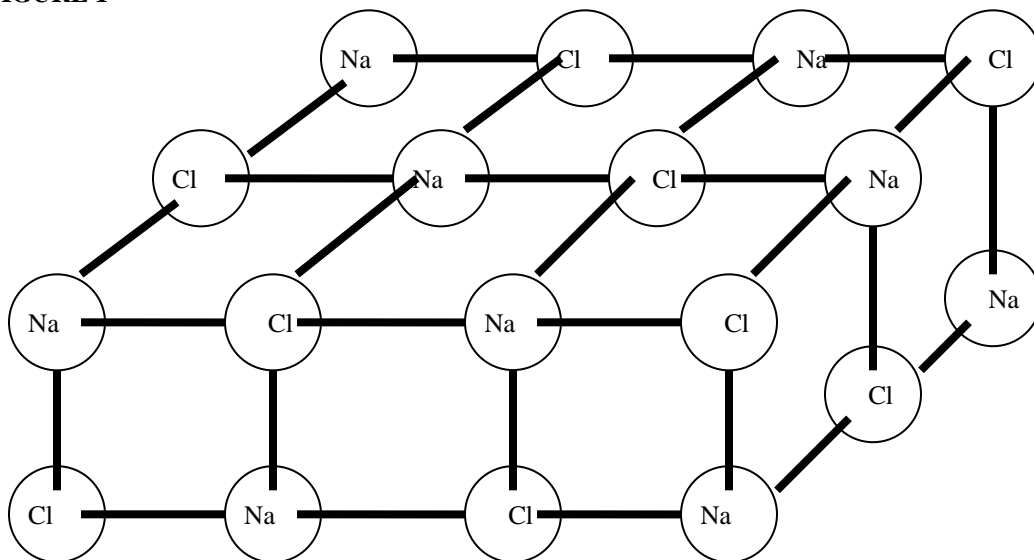
Discuss the formation of ozone in the upper atmosphere on a molecular level and the interaction with UV radiation.

Include the chemical formulas to show this process.

Sample 2: Examination questions

1. The surface air, after being heated by conduction and radiation:
 - a. expands in volume and increases in density.
 - b. expands in volume and decreases in density.
 - c. decreases in volume and increases in density.
 - d. decreases in volume and decreases in density.
2. If the ozone in the atmosphere were to be destroyed, which of the following effects would you expect NOT to occur?
 - a. The thermal structure of the atmosphere would change.
 - b. More shortwave radiation would penetrate the atmosphere.
 - c. There would be a decrease in the receipt of ultraviolet radiation at the surface.
 - d. All of these would occur.
3. The diagram shown in figure 1 below indicates the arrangement of atoms in a particular mineral. Which mineral is identified by this diagram?

FIGURE 1



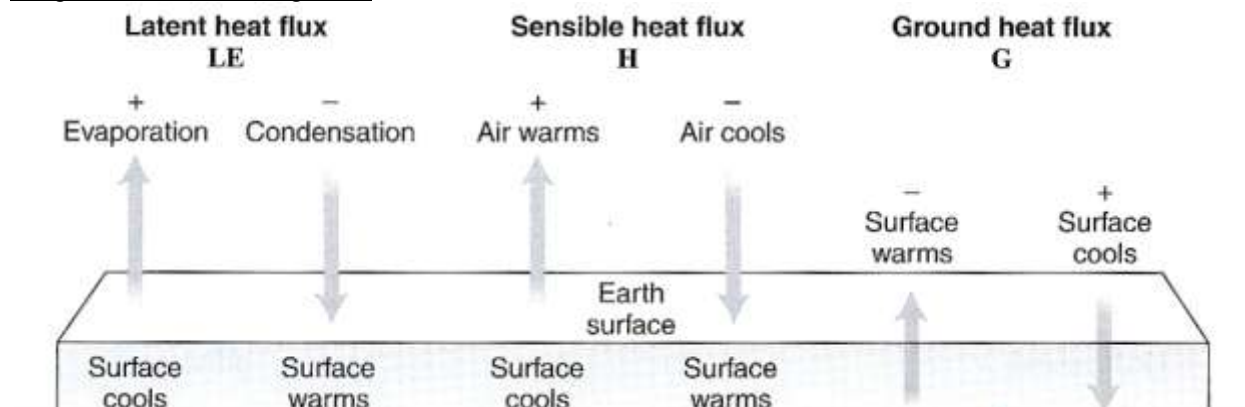
- a. Quartz
- b. Halite
- c. Potassium feldspar
- d. The diagram could represent any of the above minerals.

(PS Learning Outcome 3) Energy- Interactions within the universe can be described in terms of energy exchange and conservation.

Technical concepts relating to energy, including the laws of thermodynamics, are essential to understanding the processes studied by physical geography, in part because the discipline of geography is by its nature integrative. Energy is one fundamental concept that bridges processes as diverse as river flow, hurricane formation, the general circulation of the atmosphere, movement of tectonic plates, and ecosystem characteristics.

Sample assessment tools:

Sample 1: Homework assignment



Part 1: Read pages 95-97 of your text (Chapter 4) to define the following terms: Latent heat flux, Sensible heat flux, and Ground heat flux.

Part 2: Discuss how much energy (calories) must be added to water from the environment to form water vapor and how much energy is released to the environment through condensation (see Figure 4.12, page 95). Discuss the sublimation process and how much energy is needed to convert solid water to water vapor.

Sample 2: Examination questions

1. With regard to river energy, what would be the effects of a drop in sea level?
 - a. This would reduce a river's kinetic energy
 - b. This would increase a river's potential energy
 - c. This would reduce a river's potential energy
 - d. None of the above is correct
2. The Sun generates energy through which of the following processes?
 - a. Nuclear fission
 - b. Nuclear fusion (hydrogen fusion)
 - c. Burning of oil
 - d. None of the above
3. How can solar energy best be characterized?
 - a. It is mainly visible light and infrared energy
 - b. It is mainly ultraviolet and x-rays
 - c. It is only radiant energy that is entirely beneficial to life
 - d. None of the above
4. The Stefan-Boltzmann law states, in effect, that:
 - a. all molecular motion ceases at -20 degrees Celsius.
 - b. the greenhouse effect helps keep the Earth warm.
 - c. radiation passes through space without the use of an intervening medium.
 - d. hot things radiate much more than cold things.
5. The greenhouse effect helps keep Earth's surface tolerably warm. Which of the following is an accurate description of the greenhouse effect's workings?
 - a. longwave energy from the Earth is reflected by the atmosphere back to the Earth's surface
 - b. shortwave energy from the Earth is absorbed by the atmosphere, and re-radiated back to the Earth's surface
 - c. shortwave energy from the sun hits the Earth's surface; longwave energy from the Earth is then radiated into the atmosphere; the atmosphere absorbs and re-radiates this longwave energy.
 - d. longwave energy from the sun is trapped by clouds, which radiate shortwave energy to Earth's surface.
6. Which of the following processes of energy transfer involves energy being moved from place to place by vertical currents in a fluid medium, such as a liquid or a gas?
 - a. conduction
 - b. radiation
 - c. advection
 - d. convection

(PS Learning Outcome 4) Forces-Equilibrium and change are determined by forces acting at all organizational levels.

Physical geography involves many opportunities to study equilibrium and the forces responsible for change, such as the movement of Earth's tectonic plates, the forces associated with slope instability and mass movements (landslides), or the processes responsible for glacier advance or retreat.

Sample assessment tools:

Sample 1: Examination questions

1. What causes the Earth's lithospheric (tectonic) plates to move?
 - a. Surface winds
 - b. Powerful ocean currents
 - c. Gravitational attraction from the Sun and the Moon (tidal forces)
 - d. Convection currents within the Earth's mantle
2. The steepness of a slope that determines where loose material comes to rest is known as the:
 - a. height of the slope
 - b. angle of repose

- c. mass movement gradient
 - d. speed of the particles
3. A rapid mass movement occurs on a slope when:
- a. the angle of repose is reached
 - b. the resisting forces exceed the driving forces
 - c. the driving forces exceed the resisting forces
 - d. All of the above must occur for a rapid mass movement to take place
4. A glacier that is experiencing net ablation is:
- a. retreating.
 - b. advancing.
 - c. in equilibrium.
 - d. lengthening.

Sample Exam Questions for Assessment of GEOG 1300 (Listed by Outcome)

Outcome #1. Describe a social science approach to studying and understanding human behavior.

1. Geography is united by a _____ perspective, common to all of its subfields (e.g., cultural, economic and physical geography).
 - a. temporal
 - b. institutional
 - c. spatial
 - d. functional
 - e. theoretical
2. Which of the following academic disciplines might be incorporated, used, or drawn from in the study of geography?
 - a.) history
 - b.) geology
 - c.) political science
 - d.) economics
 - e.) all of the above

Outcome #4. Explain the interactions between individuals and their sociocultural and/or natural environments.

1. In terms of physical geography, the world's great population clusters are related to (think about the regions of the world we have studied and where population settlement is the greatest in each of those regions):
 - a. climate
 - b. soil fertility
 - c. coastal access
 - d. river systems
 - e. all of the above
2. What was the Green Revolution?
 - a. A science based approach to agriculture which greatly increased crop yields through high-yielding varieties of plants.
 - b. An approach to agriculture which polluted the environment with pesticides.
 - c. An approach to agriculture which benefited rich farmers much more than poor farmers.
 - d. All of the above
 - e. Both (b) and (c).
3. Which of the following is **not** a reason for tropical deforestation in Latin America?
 - a. new "frontier" settlements to alleviate population pressures
 - b. globalization of international wood products commerce
 - c. the world's growing appetite for beef
 - d. scarce timber resources in the northwestern U.S.
 - e. the expansion of coca leaf production for cocaine production
4. Which of the following has NOT been a factor contributing to deforestation in the Caribbean?
 - a. need for fuel
 - b. population growth
 - c. sugarcane plantations
 - d. subsistence agriculture
 - e. none of the above; all have contributed to deforestation in the region
5. Which of the following is NOT correct regarding tourism in the Caribbean?
 - a. It is an important contributor to the economy of the region.
 - b. It has been costly for countries to provide the infrastructure needed to support the industry.
 - c. The majority of profits made through tourism does not remain in (and so does not benefit) the region
 - d. Very few people in the region are employed in the tourist industry.
 - e. It can help to encourage environmental protection in the region, by protecting natural resources that serve as attractions for tourists.

6. Given the political and economic history of the region, in which area of Europe do environmental conditions tend to be the worst?
- Benelux countries (Belgium, Netherlands, Luxembourg)
 - Eastern Europe
 - Iberian Peninsula
 - Scandinavia
 - Southern Europe
7. What heavily influenced the surge of immigration to European countries such as Germany in recent years?
- the collapse of the Soviet Union
 - the releasing of the last German colony in Africa in 1989
 - the expulsion of many foreign-born immigrants from France
 - the environmental disasters that occurred in the Balkans
 - the adoption of the Euro as a common currency among European Union members

Outcome #5. Apply a social science perspective to a particular issue and identify factors impacting change (past or present).

- Which of the following is a reason why Japan has been so successful in its forest conservation efforts?
 - They have developed wood-free paper.
 - On a per capita basis, the Japanese use fewer wood products as compared to other places.
 - The fertile Japanese soils allow for astounding rates of vegetation re-growth.
 - The Japanese import most of their wood products from other locations around the world.
 - They implemented a sustainable logging program in the 1950s.
- All of the following are accurate statements about China's "one child policy" **EXCEPT**:
 - It developed in the late 1970s out of concern for China's ability to feed its rapidly increasing population.
 - It has been successful in terms of slowing the rate of population growth in the country.
 - It has not had any negative consequences.
 - It has recently been relaxed slightly.
 - It tended to be implemented/enforced mainly in China's urban environments.
- Of the following places in East Asia, which one now has the highest rate of natural increase, likely associated with the high level of poverty found in the country?
 - Taiwan
 - North Korea
 - Japan
 - China
 - South Korea
- Which of the following is **NOT** an example of the colonial legacy (think of the colonial legacies in the regions of the world we studied)?
 - export economies
 - hearths of civilization
 - religion and language
 - administrative systems
 - land use patterns
- Similar to the situation in the Tigris and Euphrates Valleys, the Indus Valley suffers from
 - foreign logging companies extracting valuable hardwoods.
 - agricultural soil salinization.
 - a lack of water for irrigation due to upstream dams.
 - water pollution from heavy industry along the river.
 - religious-based territorial conflicts.
- Given what you know of the tectonic setting for Europe, the earthquake activity that is experienced by Italy and the Balkans is primarily a result of
 - the movement of the North American Plate against the Eurasian Plate.
 - the movement of the African Plate against the Eurasian Plate.

- c. the movement of the African Plate against the North American Plate.
- d. the movement of Arabian Plate against the Eurasian Plate.
- e. the spreading of the mid-Atlantic ridge.

7. The landscape of Europe shows the influence of many different historical periods. Which of the following is an example of the landscape influence of the medieval period?

- a. Large-scale civil engineering projects, such as aqueducts or amphitheatres.
- b. Extensive transportation infrastructure, especially canals.
- c. Walled villages, established in defensive positions, such as the perched villages of France.
- d. All of the above are good examples of the European medieval landscape.
- e. None of the above is a good example of the European medieval landscape.

8. Which of the following is NOT an example of Europe “coming together” through centripetal forces?

- a. the expansion of NATO to include more eastern European countries
- b. the European Union
- c. the creation of several smaller states out of what used to be the former Yugoslavia
- d. the reunification of Germany
- e. the establishment of Euroland

9. What was the purpose of Russification (the Soviet policy of resettling Russians into non-Russian portions of the former USSR)?

- a. to drain some of the population from Moscow, which had become a primate city
- b. to increase Russian dominance in outlying portions of the former USSR
- c. to provide laborers to under-populated regions of the former USSR
- d. to bring Russian teachers to under-populated regions of the former USSR
- e. to establish military outposts for defensive purposes in the former USSR

10. Which of the following are typical consequences of over-urbanization?

- a. insufficient job availability in the city
- b. lack of adequate housing with decent sanitation and services
- c. the creation and/or expansion of favelas (squatter settlements)
- d. insufficient transportation infrastructure
- e. all of the above are likely consequences of over-urbanization

11. Which of the following is NOT the consequence of the *Columbian Exchange*?

- a. The death of many in the indigenous populations of Latin America due to Old World diseases.
- b. The prevalence of the potato and tomato in the foods of various European countries, such as Ireland and Italy, respectively.
- c. Horses in Latin America
- d. Corn (maize) in Latin America
- e. Brazilians of European descent

SS Gen. Ed. Assessment Results for Outcomes #1, 4 and 5 GEOG SS/DV1300

Semester of assessment	Number of student respondents	Percentage* of correct responses Outcome #1	Percentage* of correct responses Outcome #4	Percentage* of correct responses Outcome #5
Fall, 2006	57	78	72	75
Fall, 2008	55	81	74	75
Fall, 2010	62	86	82	78

APPENDIX D: GEOGRAPHY FACULTY

Current Full Time Faculty

Name	Gender	Ethnicity	Rank	Tenure Status	Highest Degree	Years of Teaching			Areas of Expertise
						WSU	Other	Total	
Hal Elliott	M	Eur	Prof	Tenured	Ph.D.	32	3	35	Asia Urban
Eric Ewert	M	Eur	Assoc Prof	Tenured	Ph.D.	10	10	20	Econ, Cart GIS
Julie Rich	F	Eur	Assoc Prof	Tenured	D Phil	13	2	15	Arid Lands, Paleoclimates
Dan Bedford	M	Eur	Assoc Prof	Tenured	Ph.D.	9	7	16	Arctic, Climate
Bryan Dorsey	M	Eur	Prof	Tenured	Ph.D.	14	5	19	Africa, Planning
Alice Mulder	F	Eur	Asst Prof	Tenure Track	Ph.D.	7	1	8	W Reg, Envir. & Society
Total	2 F, 4 M			5 Tenured		85	28	113	

Current Adjunct Faculty

Name	Gender	Ethnicity	Rank	Tenure Status	Highest Degree	Years of Teaching			Areas of Expertise
						WSU	Other	Total	
Shaunna Burbidge	F	Eur	Instr	Adj	Ph.D.	1st	5	5	Urban, Planning
Wendy Dickie	F	Eur	Instr	Adj	MS	3	10	13	W Reg, Phys
Kim Hadfield	M	Eur	Instr	Adj	M.Ed.	18	27	27	W Reg, Phys
Anna Lang	F	Minority	Instr	Adj	Ph.D.	5	4	9	Biogeog
Matt McCullough	M	Eur	Instr	Adj	MS	1st	1	1	GIS
Klaus Gurgel	M	Eur	Instr	Adj	ABD	27	2	29	Historical
Paul Richards	M	Eur	Instr	Adj	MS	4	10	10	Phys, Cult Resources

APPENDIX D continued: DEPARTMENT STAFF

Name	Gender	Ethnicity	Job Title	Years of Employment			Areas of Expertise
				WSU	Other	Total	
Debra Lacey	F	Eur	Secretary	5		5	Office Management

APPENDIX E: ABBREVIATED FACULTY VITAE

DANIEL BEDFORD, Ph.D. (Geography), University of Colorado (1997)

TEACHING EXPERIENCE & INNOVATIONS: I have taught 8 different classes at WSU over the last 10 years, including one class for the Honors program on the Great Salt Lake, in which extensive field trips were an integral part of the class. This particular class garnered considerable publicity, including a news article in the *Deseret News*. I have recently introduced a new physical science general education course to the curriculum, GEOG PS 1400 The Science of Global Warming (university approval of new general education courses is a particularly rigorous process). I am regularly involved in university-wide experiments with new teaching approaches, such as 2005's Learning Communities Initiative, an attempt to encourage students to meet with faculty in a more informal setting outside the classroom. Since fall 2002 I have been developing electronic media for use in the classroom, which can be made available for student access outside of class. Student evaluations indicate that these materials are an invaluable study aid. These materials may be accessed via <http://faculty.weber.edu/dbedford/> . My scholarship and service is increasingly intertwined with teaching, as outlined below.

RESEARCH /SCHOLARSHIP: My current research now focuses on various aspects of the Great Salt Lake. Ongoing research in this program includes analysis of the variable marine climatic influence of the lake on near-shore locations as the lake rises and falls over time; as well as student opinion about, understanding of, and learning processes related to climate change in general. In particular, I am now engaged in the scholarship of teaching and learning on student opinions about human-induced global warming. I have organized paper and panel sessions at the national AAG conference in four of the last five years.

Refereed Publications:

Bedford, D. 2010. Agnotology as a teaching tool: Learning climate science by studying misinformation. *Journal of Geography*, 109: 4, 159-165.

Bedford, D. 2009. The Great Salt Lake: America's Aral Sea? *Environment* 51:5, 8-19.

Bedford, D. 2008. Agnotology, community attitudes, and student critical-thinking skills. In A. Johnston and J. Settlage (Eds.), *Proceedings of the Science Education at the Crossroads Conference* (pp. 12-13). Alta, UT: National Science Foundation [Available online at www.sciexroads.org/proceedings2008.html].

- Bedford, D., and A. Douglass. 2008. Changing properties of snowpack in the Great Salt Lake Basin, western United States, from a 26-year SNOTEL record. *The Professional Geographer* 60:3, 374-386.
- Bedford, D. 2005. Utah's Great Salt Lake: A complex environmental-societal system. *Geographical Review* 95: 1, 73-96.
- Bedford, D.P. 1996. International water management in the Aral Sea basin. *Water International* 21: 2, 63-69.
- Bedford, D.P., and R.G. Barry. 1995. Glacier trends in the Caucasus, 1960s to 1980s. *Physical Geography* 15: 5, 414-424.

Non-Refereed Publications:

- Bedford, D.P., R.G. Barry, and C.D. Haggerty. 1996. Analysis of mass balance indicators in the new glacier inventory of the former Soviet Union. In Colbeck, S.C. (ed.), *Glaciers, Ice Sheets and Volcanoes: A Tribute to Mark F. Meier*, pp. 12-16, CRREL Special Report 96-27, US Army Corps of Engineers, Hanover, New Hampshire.
- Bedford, D.P., and C.D. Haggerty. 1996. New digitized glacier inventory for the former Soviet Union and China. *NOAA Earth Systems Monitor* vol. 6 no. 3, pp. 8-10.
- Bedford, D.P., and R.G. Barry. 1995. New cryospheric data sets from the former Soviet Union. *International GEWEX Workshop on Cold-Season/Region Hydrometeorology: Summary Report and Proceedings*, compiled by Krauss, T.W., and Carroll, T.R., IGBPO Publication Series No. 15, UCAR, pp. 179-182.

Book Reviews:

- McNeill, J.R., 2000, *Something New Under the Sun: an Environmental History of the Twentieth-century World*, published by W.W. Norton and Company; review published in *Ethics, Place and Environment*, vol. 5 no. 2, pp. 158-161, June 2002.
- Merrett, S., 1997, *Introduction to the Economics of Water Resources: An International Perspective*, published by Rowman & Littlefield; review published in *The Professional Geographer*, vol. 51 no. 2, pp. 323-324, May 1999.

CONFERENCE PRESENTATIONS (last 10 years only):

- Bedford, D.P., *Student Opinions on Global Warming* (paper), AAG national meeting in Seattle, WA, 2011.
- Bedford, D.P., *Student Opinions on Global Warming* (paper), AAG national meeting in Washington, DC, 2010.
- Bedford, D.P., *Temperature effects of areal fluctuations of Great Salt Lake, Utah: summer versus autumn* (paper), AAG national meeting in Boston, MA, 2008.
- Bedford, D.P., *Changing Properties of Northern Utah Snowpack from a 20+ Year SNOTEL Record* (paper), AAG national meeting in San Francisco, CA, 2007.
- Bedford, D.P., *Maritime Climatic Influence of the Great Salt Lake, Utah* (paper), Association of American Geographers' (AAG) national meeting in Chicago, IL, 2006.
- Bedford, D.P., *Variable Maritime Climatic Influence of the Great Salt Lake, Utah* (paper), Second Annual Faculty Forum, Weber State University, Ogden, UT, 2006.
- Bedford, D.P., *Human Ecology And Great Salt Lake-Effect Snowstorms: Prospects For Regional Anthropogenic Climate Change*, Society for Human Ecology national meeting, Salt Lake City, UT, 2005.

Bedford, D.P., *Climate-Society Interactions and Utah's Great Salt Lake* (paper), AAG meeting in Denver, CO, 2005.

Bedford, D.P., *Establishing a heat budget-water clarity relationship for Utah's Great Salt Lake* (paper), First Annual Faculty Forum, Weber State University, Ogden, UT, 2005.

Bedford, D.P., *Establishing a heat budget-water clarity relationship for Utah's Great Salt Lake* (paper), AAG meeting in Philadelphia, PA, 2004.

Bedford, D.P., *Changes in Salinity Levels of Utah's Great Salt Lake and their Environmental and Societal Consequences* (paper), AAG meeting in New Orleans, LA, 2003.

Bedford, D.P., *Snowmelt Runoff Modeling of the New Haven River Basin* (paper), AAG meeting in Los Angeles, CA, 2002.

AWARDS AND HONORS:

College Endowed Professor, College of Social and Behavioral Sciences, Weber State University, 2010-2013.

Honors Nye Cortez Professor of the Year, 2009-2010.

Honors Eccles Fellow, 2008.

Crystal Crest Master Teacher award, finalist 2005 and 2009.

UNIVERSITY & COMMUNITY SERVICE ACTIVITIES:

WSU Committees (highlights only)

- 2004-06 College representative to Academic Resources and Computing Committee (ARCC), during which I secured nearly \$50,000 in grant money for multimedia classrooms in the Social Sciences building. I served as assistant chair of ARCC in 2005-06.
- 2005-09 Faculty trustee of the Hemingway Foundation (*ex officio* in 2009).
- 2006-07 Chair of General Education Improvement and Assessment Committee. I served as chair of this committee during the first year of its formal existence as a permanent faculty senate committee, at the end of which we had to prepare for a visit from Northwest Accreditation to assess progress in general education reform at WSU.
- 2007-10 Member of Environmental Issues Committee. During this time I have organized numerous events on campus, including a panel discussion on outdoor recreation and environmental stewardship with high-profile panelists such as Mayor Matt Godfrey and Peter Metcalf, CEO of outdoor equipment manufacturer Black Diamond. This event filled the Wildcat Theater, and was featured on the front page of the *Standard-Examiner*. I also hosted screenings of the global warming documentary *An Inconvenient Truth*, attended by around 400 people in total (mostly community members, not students), and arranged for presentations from Brian Moench, president of Utah Physicians for a Healthy Environment, and Tom Zeller, Jr., *New York Times* environment editor and correspondent.
- 2007 to present: faculty advisor to the WSU Environmental Club, one of the most active clubs on campus (twice finalists for, once winners of Crystal Crest award, club of the year).
- Currently a member of the University Teaching, learning and Assessment Committee.

Presentations to community groups: Too numerous to list in detail, but include Wasatch Front Audubon Society, US Forest Service, Ogden Noon Exchange Club, Forest Service retirees, Weber Historical Society, DaVinci Academy, League of Women Voters, all since 2004-05. I have also written several op-ed pieces for the *Standard-Examiner*, debunking erroneous claims about climate change.

BRYAN DORSEY, Ph.D., (Geography), University of Colorado-Boulder (1996).

TEACHING EXPERIENCE & INNOVATIONS: I have taught 8 different courses over the past 14 years at WSU. I regularly teach two high-enrollment, lower division courses, and two upper division courses each semester. Beginning in 2001, I have offered over half a dozen field studies courses for students. The first involved field studies in the San Rafael Swell of Central Utah, and the second took students to Southern Idaho and Northeastern Nevada (jointly taught with the Anthropology Department). I have offered other field courses in the Escalante area of Southern Utah (2003 and 2004), as well as courses at the City of Rocks, ID (2005, 2009, and 2010). Field courses allow students to experience geography, and study land use planning, physical and cultural geography topics in the field. The ultimate field course experience came in the Spring of 2008 when I taught three geography classes as part of the Semester at Sea Program. We visited a dozen countries and I led field course work during half of those visits as we circumnavigated the world. Upon my return in the fall of 2008, I developed and taught a new course, "Natural Environments Field Studies" (Geogr 1001) that accompanies Geogr 1000. I developed another new course in 1999, "World Environmental Issues" (Geogr 3060), that I have taught periodically over the years. The course, formally approved for the WSU curriculum in 1999, entails a detailed geographic analysis of global and local environmental issues such as the impacts of development in prime agricultural regions on food production, solid waste management, toxic (including nuclear) waste management, and problems of energy efficiency within built environments. Both Geogr 3060 and 1001 are required for students completing a minor in Environmental Studies. As coordinator of the Urban and Regional Planning Emphasis, I teach two Land Use Planning courses (Geogr 4410 and 4420) which incorporate community service-learning pedagogy. As such, the course provides a community service as students work with community agencies on projects relevant to theory and principles of planning. Courses involve preparation and presentation of draft general plans for surrounding municipalities. In addition to teaching, I advise students in the Urban and Regional Planning program and act as the liaison for the Department's Geography Club.

RESEARCH/SCHOLARSHIP: Land use and transportation planning: sabbatical research in 2006 focused on inadequacies of parking requirements and mass transit incentive programs at WSU. I am also interested in researching alternative modes of transportation in West Africa (also part of sabbatical research in 2006). Geography education/service-learning: I am currently involved in developing service-learning partnerships with local agencies that deal with land use planning issues. Much of the course material emerging from this work focuses on sustainable land use practices.

Publications in Refereed Journals:

- Dorsey, B. 2008. Sustainable intermediate transport in West Africa: Quality before quantity. *World Transport Policy and Practice* 14 (2): 8-20.
- Dorsey, B. 2005. Mass transit trends and the role of unlimited access in transportation demand management. *Journal of Transport Geography* 13 (3): 235-246.
- Dorsey, B. 2004. Review of *The Institutions of Local Development*, by Fabio Sforzi, ed. *Southeastern Geographer* 44 (1): 129-130.
- Dorsey, B. 2001. Linking Theories of Service-Learning and Undergraduate Geography Education. *Journal of Geography* 100: 124-132.

Dorsey, B. 1999. Agricultural Intensification, Diversification, and Commercial Production among Smallholder Coffee Growers in Central Kenya. *Economic Geography* 75 (2): 178-195.

Publications (Non-Refereed):

Dorsey, B. and Blaisdell, T. 2003. Changing lanes: Transportation along the Wasatch Front, Utah, in Richard Jackson and Mark Jackson, eds., *Geography, Culture and Change in the Mormon West: 1847-2003*. National Council for Geographic Education *Pathways* Series, no. 27: 109-117.

Havlick, S.W. and Dorsey, B. 1993. To Plan or Not to Plan: Opportunities for Natural Hazards Information in Graduate Planning, *Natural Hazards Observer*, 18 (2): 4-5. Boulder, CO: Natural Hazards Research and Applications Information Center.

Hill, A.D., Dorsey, B., Dunn, J. M., and Klein, P. 1992. The Geographic Inquiry into Global Issues Project: Rationale, Development and Evaluation, in *International Perspectives on Geographic Education*, Hill, A.D., ed., Boulder, CO: Center for Geographic Education.

Dorsey, B. 1995. Building New Nation-States, in *Geographic Inquiry into Global Issues*, Hill, Dunn, and Klein, eds., Chicago: Encyclopedia Britannica Educational Corporation.

Publications for Land Use Planning Agencies:

Dorsey, B., ed. 2010. Weber County Pathways Master Plan.

Dorsey, B. and G. Ellis. 2007. Plain City Parks, Trails and Open Space Master Plan.

Dorsey, B., ed. 2006. North Ogden City Parks and Trails Plan.

Dorsey, B., ed. 2005. Uintah City Draft General Plan. In-house publication by WSU Dept. of Geography for Uintah City Planning Commission.

Dorsey, B., ed. 2004. Central Ogden Revitalization Project Report. In-house publication by WSU Dept. of Geography for Ogden City Community Development Department.

Dorsey, B., ed. 2003. Morgan County Land Preservation Plan. In-house publication by WSU Dept. of Geography for Morgan County Planning Department. This plan provides guidance to Morgan County officials as they attempt to preserve open space.

Dorsey, B., ed. 2002. Washington Terrace City Draft General Plan. In-house publication by WSU Dept. of Geography for Washington Terrace City Planning Commission.

Dorsey, B., ed. 2002. Ogden City Parking Study. In-house publication by WSU Dept. of Geography for Ogden City Planning Department.

Dorsey, B., ed. 2001. Sunset City Draft General Plan. In-house publication by WSU Dept. of Geography. Adopted and reprinted for official use by Sunset City Planning Department, September, 2002.

Dorsey, B., ed. 2000. Retaining Marriott-Slaterville's Rural Character: Open Space Preservation and Pathway Development. This plan provides guidance to Marriott-Slaterville City officials as they attempt to preserve open space.

Dorsey, B., ed. 1999. Marriott-Slaterville Draft General Plan. In-house publication by WSU Dept. of Geography. Adopted and reprinted for official use by Marriott-Slaterville City Planning Department, September, 1999.

PROFESSIONAL PRESENTATIONS (last 10 years only):

Dorsey, B. "Program Building for Current and Future Geography Dept. Chairs." Association of American Geographers Regional Meeting, Denver, CO. October, 2011.

Dorsey, B. "Transit Oriented Development and the College Campus: Weber State University Case Study." Association of American Geographers Annual Meeting, Seattle, WA. April, 2011.

- Dorsey, B. and J. Jones. "Linking undergraduate research to community service: Cases in land use planning and your discipline." Utah Campus Compact Annual Conference. SLC, UT. February, 2010.
- Dorsey, B. and A. Mulder. "Struggle for Land Use Control and Community Identity in Northern Utah." Association of American Geographers, Rocky Mountain Regional Meeting, Logan, UT. September, 2009.
- Dorsey, B. "Sustainable Intermediate Transport in West African Secondary Cities." Association of American Geographers, Annual Meeting, San Francisco, CA. April, 2007.
- Dorsey, B. and S. Havlick. "Integrating Comprehensive Transportation Demand Management with Campus Planning." Association of American Geographers, Annual Meeting, Denver, CO. April, 2005.
- Dorsey, B. "Mass Transit Trends and the Role of Unlimited Access in Transportation Demand Management." Association of American Geographers, Annual Meeting, Philadelphia, PA. March, 2004.
- Dorsey, B. and Bedford, D. "Environmental and Social Implications of Climate Change." WSU Honors Issues Forum, February, 2004.
- Dorsey, B. "Service-Learning in Geography and Applications to Urban Geographic Studies." Panel discussant, Association of American Geographers, Annual Meeting, Los Angeles, CA. March, 2002.
- Dorsey, B. "Urban Sprawl and the Subdivision Dilemma." The North American Interdisciplinary Conference on Environment and Community, Weber State University, March, 2002.
- Dorsey, B. "Linking Theories of Service-Learning and Undergraduate Geography Education." Association of American Geographers, Annual Meeting, New York, NY. March, 2001.

AWARDS AND HONORS:

- John A. Lindquist Award for Community Service, April 2010.
- George and Beth Lowe Innovative Teaching Award, 2007. Honored and awarded for commitment to teaching excellence.
- Gwen Williams Award of Excellence for participation in civic engagement with other WSU faculty, 2004.
- Finalist for Weber State University Crystal Crest, Master Teaching Award. 2004.
- Awarded "Recognition of Outstanding Civic Engagement" by the Utah Campus Compact in April, 2003 for community-based academic service-learning projects in land use planning.

UNIVERSITY & COMMUNITY SERVICE ACTIVITIES:

UNIVERSITY SERVICE: I began chairing the Geography Department in July, 2011 after attending a geography leadership workshop at the University of Colorado in June, 2011. As chair, I serve on the Social and Behavioral Science College Council. In addition to serving on departmental committees, I chaired the University Environmental Issues Committee (1998-2006), and served on the University Curriculum Committee (2000-2003). Service-Learning Grant/Project: continue to work with other Weber State University faculty to promote service-learning partnerships with community organizations.

COMMUNITY SERVICE: Service to Marriott-Slaterville City, UT: prepared and presented a draft general plan, with assistance from Advanced Planning course participants, for the Marriott-Slaterville Planning Commission and City Council (the plan was adopted for use by the City in the Fall of 1999). Extended in Spring, 2000 to develop an Open Space Preservation Plan. Service to City of Ogden, UT:

met with Ogden City Mayor and other officials to establish community service-learning partnerships with Weber State University. Provided assistance with Ogden City's general plan, and made recommendations for the city's recycling program. Continue to assist with the regional planning effort, Envision Utah. Service to Washington Terrace City, UT: prepared and presented a draft general plan for the Washington Terrace Planning Commission.

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HAL ELLIOTT, Ph. D. (Geography), University of Oklahoma (1978)

TEACHING EXPERIENCE & INNOVATIONS: Primary teaching interests focus on the following courses:

Historical and Cultural Geography	Geography of Europe
World Regional Geography	Geography of Asia
Geography of China and Japan	Urban Geography
Geography of the United States	Geography of India and the Middle East

I have also taught the Quantitative Methods course and kept current with SPSS software for the past 15 or more years.

PUBLICATIONS:

"Drawing Blackboard Maps: Focus on the Eastern Hemisphere," The Journal of Geography, Vol. 73, No. 2 (February 1974), pp. 48-53. "Cao Dai, A Vietnamese Religion," Ecumene, Vol. 6 (May 1974), pp. 6-13. "Regional Phylogeny" Ecumene, Vol. 9 (April 1977), pp. 40-47. "The Geographic Expansion of National Airlines," The Florida Geographer, Vol. 12, No. 2 (August 1978), pp. 26-32. "Mental Maps and Ethnocentrism: Geographic Characterizations in the Past," The Journal of Geography, Vol. 78, No. 7 (December 1979), pp. 250-265. "The Food Crisis in Prehistory: Overpopulation and the Origins of Agriculture, by Mark Nathan Cohen," Book Review, The Professional Geographer, Vol. 31, No. 4 (November 1979), pp. 435-436. "The Historical Geography of Western Airlines," Yearbook of the Association of Pacific Coast Geographers, Vol. 43 (1981), pp. 77-100. "Macrocalifornia and the Urban Gradient," The California Geographer, Vol. 21 (1981), pp. 1-17. "The Pacific Coast Nearest Larger Neighbor Gradient," Yearbook of the Association of Pacific Coast Geographers, Vol. 44 (1982), pp. 29-45. "Machine Space and the Computer Network: A New Technology in the California Landscape," The California Geographer, Vol. 22 (1982), pp. 50-66. "Surrounding Larger Neighbors and the Atlantic Coast Cardinal Neighbor Gradient," Economic Geography, Vol. 59, No. 4 (October 1983), pp. 426-444. "Cardinal Place Geometry in the American South," Southeastern Geographer, Vol. 24, No. 2 (November 1984), pp. 65-77. "Cardinal Places and the Urban Gradient," Urban Geography, Vol. 5, No. 3 (July 1984), pp. 223-239. "Cardinal Place Geometry," Geographical Analysis, Vol. 17, No. 1 (Jan. 1985), pp. 16-35. "World Regional Geography: Issues for Today, by Richard H. Jackson and Lloyd E. Hudman," Book Review, The Annals of Regional Science, Vol. 19, No. 3 (November 1985), pp. 147-150. "Changing Spatial Structure in the Rocky Mountain Regional System," Yearbook of the Association of Pacific Coast Geographers, Vol. 48 (1986), pp. 149-167. "Cardinal Directions, Southpaws, and Geographic Place Names," Sport Place: International Journal of Sports Geography, Vol. 2, No. 2 (Fall 1988), pp. 39-41. "Records From the Journal of John Woods," The Ohio Genealogical Society Report, Vol. 34, No. 3 (Fall 1994), pp. 132-133. "Maps of Holmes County and Its Surrounding Neighbors: Some Observations," The Ohio Genealogical Society Report, Vol. 35, No. 1 (Spring 1995), pp. 4-7. "Early Origins of the Scots," The

Scottish-American Patriot, Vol. 13, No. 4 (Fall 1995), pp. 6-8. "Holmes County and the 67th Ohio Volunteers," The Ohio Genealogical Society Report, Vol. 35, No. 3 (Fall 1995), pp. 115-123. "Life in Holmes County from First Settlement to the Mexican War," The Ohio Genealogical Society Report, Vol. 36, No. 2 (Summer 1996), pp. 100-102. "The Picts, Priteni, and Caledonii of Ancient Scotland," The Scottish-American Patriot, Vol.19, No.1 (January 1999), pp 16-20. "Scots in the United States," The Scottish-American Patriot, Vol. 19, No. 3 (Summer 1999), pp.10-13. "The Ancient Celts: Who Were They?" The Scottish-American Patriot, Vol. 21, No. 1 (March 2001), pp.34-36. "Symbolism in Scottish Clan Tartans and Costumes," The Scottish-American Patriot, (2005) (forthcoming). "John Woods' Early Years in Holmes County," The Ohio Genealogical Society Quarterly, (2005) (forthcoming).

PRESENTATIONS: Over forty research papers delivered at professional meetings, including presentations at the annual conventions of the Association of American Geographers, Congress International de Geographie, National Council for Geographic Education, Southwestern Social Science Association, Association of Pacific Coast Geographers, Great Plains-Rocky Mountain AAG, Western Social Science Association, and American Society of Photogrammetry.

AWARDS AND HONORS:

Weber State University 25 Year Certificate of Recognition, 2004
 Dello Dayton Award for Academic Excellence & Professional Service, Weber State, 2004.
 Certificate of Appreciation, Reserve Officers Association National Convention, 2004.
 Selected for Who's Who Among American Teachers, 9th edition, 2004-2005.
 Selected for Who's Who Among American Teachers, 10th edition, 2005-2006.
 Weber State University 30 Year Certificate of Recognition, 2009.
 Included in Marquis Who's Who in the World, 31st edition, 2010. http://www.credoreference.com/entry/marquisworld/elliott_harold_marshall
 Included in Marquis Who's Who in America, 64th edition, 2010, p.1320. http://www.credo-reference.com/entry/marquisworld/elliott_harold_marshall

PROFESSIONAL SERVICE: Cartography Respondent, Vocational Interest Inventory (University of Minnesota). Geography Respondent, Vocational Strong Interest Inventory (Stanford University). Cartographic Consultant, Mr. Map Vending Co. (Miami, Florida). Geographic Consultant, Merrill Lynch Investment Services. Manuscript Referee, Economic Geography, Urban Geography, Encyclopaedia, Yearbook of the Association of Pacific Coast Geographers, Selected Papers in Asian Studies, Environment and Planning A, and The Florida Geographer. M.A. Thesis Committee (University of Utah). Session Chair, annual meetings of the Utah Academy of Sciences, Great Plains-Rocky Mountain AAG, and Western Conference of the Association for Asian Studies. Manuscript Reviewer, John Wiley & Sons, McGraw-Hill, Saunders College Publishing Company, WCB/McGraw-Hill, and W.H. Freeman & Company. Program Chairman, annual meetings of the Great Plains-Rocky Mountain Division of the AAG and Utah Geographical Society. Organizer and Chair, numerous annual meetings of the Utah Geographical Society. Session Discussant, annual meeting of the National Council for Geographic Education. Planning Committee, Utah Geographic Alliance Annual Spring Conference. Associate Editor, Scottish-American Patriot.

UNIVERSITY & COMMUNITY SERVICE: Member and occasional Chairman, numerous academic committees at Weber State. Faculty Advisor, Alpha Phi Omega Fraternity (Cameron College), Gamma Theta Upsilon (Weber State), Geojournal (Weber State), and Natural Sciences Student Council (Weber State). Delegate, Weber County Democratic Convention. Judge and Judging Team Captain at numerous Utah High School Science and History Fairs. Faculty Contestant, WSU College Bowl Quiz Panels. Planning Committee and Judge, several Utah Geography Olympiads. Planning Staff and Counselor, Utah Boys' State.

Commander, Vice Commander, and Adjutant, American Legion Post 139. Distinguished Guest Committee, 1996 American Legion National Convention (principle escort for delegation of general officers from the Republic of China). Judge, American Legion Oratorical Contests. Co-sponsor of the Dr. Anna J. Lang Scholarship for Future Geography Teachers. State Board of Directors and Secretary, Ogden Chapter of the Sons of the American Revolution. Post Adjutant, Scottish-American Military Society and member of the Scottish-American Military Society Color Guard (marching in numerous parades with various Utah bagpipe bands). Geography Representative, Utah Higher Education Board of Regents Articulation Conferences. Presenter, Utah State Office of Education Task Force on Social Studies Teaching. State Executive Committee, Reserve Officers Association and Staff Volunteer, 2004 Reserve Officers Association National Convention.

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ERIC EWERT, Ph.D. (Geography), University of Idaho (2002)

TEACHING EXPERIENCE & INOVATIONS: I have taught for more than 20 years at three different universities and one community college, instructing now seventeen different courses. In addition to the traditional classroom lecture, I've led field trips, instructed laboratory sections, taught on TV, directed internships, integrated community service, and guided students on the Internet. Recently, I've converted an entire class to software and data sets that allow students to work from home. Earlier, I was involved in a number of innovative programs: Geography Advisor/Teacher for Fusion: Integrating the Social Sciences: a State of Washington Education Project for Professors of Education and Their Primary and Secondary Education Students, 2001. Author of World Regional Geography Class Website, University of Idaho, 2000. Guest Lecturer for the Alliance of Idaho Geographers' Summer Institute for Primary and Secondary School Teachers, 1999. Course Author of "Introduction to Physical Geography" and "Introduction to Anthropology," six college courses authored and presented via Distance Learning Television Network, College of Eastern Utah. Served communities throughout southeastern Utah and the Navajo and Ute Mountain Indian Reservations in Arizona, New Mexico, and Utah, through 1997. Program Creator/ Coordinator, "Environmental Studies," a comprehensive, field-based seven-credit hour college course offered at College of Eastern Utah, through 1997.

RESEARCH/SCHOLARSHIP: My current research interests lie in Environmental Studies, the American West, Population, Historical, & Economic Geography. I have lived in western states from Arizona to Alaska. A life-long and mesmerized observer of the region, my contemporary research and writing focus on the rapid demographic and economic change occurring in the American West and the costs associated with such environmental and cultural transgressions.
Ewert, EC. "Utah Growing Like a Third-World Country" Editorial, The Salt Lake Tribune, March 26, 2011.

Ewert, EC. "Welcome to Utah – Just Don't Breathe" Editorial, *The Standard Examiner*, January 24, 2010.

Ewert, EC. "Searching for the 'Old West' in the Theme Towns of the New West," (submitted to *MONTANA: The Magazine of Western History* and forthcoming).

Ewert, EC. "Four Great Salt Lake Maps: Region, Study Area, Weber County, and Davis County" for a colleague's dissertation, conference presentations, and articles (2008).

Ewert, EC. "From Hinterland to Bellwether: A Century of Demographic and Economic Change in the Pacific Northwest" (*The Journal of the West*, Vol. 45, No. 1, Winter 2006, pp 41-51).

Ewert, EC. "Lemhi Pass and Tendoy, Idaho," in *America's Historic Sites* (Pasadena: Salem Press, 2000).

Ewert, EC. "Setting the Pacific Northwest Stage: The Influence of the Natural Environment," Chapter 1 in Dale D. Goble and Paul W. Hirt, eds., *Northwest Lands, Northwest Peoples: Readings in Environmental History* (Seattle: University of Washington Press, 1999).

Ewert, EC. "Rural Place Redevelopment and the 'Rise of Theme Towns.'" Published Abstracts, Annual Conference Southwestern Division of the Association of American Geographers, Conference Guide, Texas State University, San Marcos, Texas, 2008.

Ewert, EC. "Are Crowds Better than Cows? The Conversion to Tourism, Recreation, and Retirement in the Pacific Northwest's Amenity Towns." Published Abstracts, Planetary Stewardship: an Interdisciplinary Conference on the Environment, Conference Guide, The Borah Foundation, University of Idaho, Moscow, Idaho, 1998.

Ewert, EC. "From Extractive to Attractive: Demographic and Economic Boom and Bust in the Non-Metropolitan American West." F. Andrew Schoolmaster, editor, (*Papers and Proceedings of the Applied Geography Conferences*, Volume 20, 1997, page 354)

PRESENTATIONS:

Ewert, EC. "Remaking the Rural West: The Costs of Attracting Tourists, Recreationists, Retirees, and Footloose Industries" - paper presentation at the Annual Meetings of Great Plains/Rocky Mountain Division of the Association of American Geographers (GPRMAAG), Logan, Utah, September 25-26, 2009.

Ewert, EC. "Tourism Redevelopment Strategies: Are Western Theme Towns the Answer?" - paper presented at the Annual Meetings of the Association of American Geographers (AAG), Las Vegas, Nevada, March 22-27, 2009.

Ewert, EC. "10th Annual GIS Day," Co-Director, Workshops and Presentations, Weber State University, November 19, 2008.

Ewert, EC. "The View from the River: A Writer and a Geographer Raft the Grand Canyon," invited presentation to the Weber County Historical Society, Weber State University, Alumni Center, November 17, 2008

Ewert, EC. "Rural Place Redevelopment and the Rise of 'Theme Towns,'" - paper presentation at the Annual Meetings of Southwestern Division of the Association of American Geographers (SWAAG), San Marcos, Texas, October 23-25, 2008.

Ewert, EC. "Introduction to Geographic Information Systems (GIS)," Invited Talks: WSU College of Social and Behavioral Sciences and departments of Criminal Justice and Political Science, 2006-2008.

Ewert, EC. "GIS for Beginners Workshop," Co-Leader, Workshop for Faculty and Staff, Weber State University, August 20, 2007

Ewert, EC. "From Hinterland to Bellwether: A Century of Demographic and Economic Change in the Pacific Northwest" - paper presentation at the 100th Annual Meetings of the Association of American Geographers (AAG), Philadelphia, Pennsylvania, March 15-19, 2004.

Ewert, EC. "Searching for the 'Real West' in the Theme Towns of the New West," - paper presentation at the Annual Meetings of the Western Historical Association (WHA), Fort Worth, Texas, October 8-11, 2003.

Ewert, EC. "Grand Canyon Geography," invited presentation, National Geography Awareness Week, Moscow, Idaho, November 2000.

Ewert, EC. "Beyond Capitals and Countries: Essential Geography," invited lectures, The Alliance of Idaho Geographers Institute, Clark Fork, Idaho, June 1999.

Ewert, EC. "Are Crowds Better Than Cows? The Conversion to Tourism, Recreation, and Retirement in the Pacific Northwest's Amenity Towns," The Borah Conference, Moscow, Idaho, April 1998.

Ewert, EC. "From Extractive to Attractive: Demographic and Economic Boom and Bust in the Non-Metropolitan American West," National Meetings, Association of Applied Geographers, Albuquerque, New Mexico, November 1997.

Ewert, EC. "From Extractive to Attractive: The Boom, Bust, and Boom Again of Natural Resource Towns in the American West," - paper presentation at the Annual Meetings of the Association of American Geographers, Fort Worth, Texas, April 1997.

AWARDS AND HONORS AND GRANTS:

Research, Scholarship and Profession Growth Grant, Weber State University, Autumn 2008

Academic Resources and Computing Committee Grant, Weber State University, Spring 2006

Campus-wide Geographic Information Systems (G.I.S.) Grant, in collaboration with the department of Geosciences, Weber State University, 2004-present

Putting Students Through Recognition Award, Weber State University, Spring 2006

Research, Scholarship and Profession Growth Grant, Weber State University, 2004

Hemingway Faculty Vitality Award, Weber State University, 2003

Higher Education Technology Initiative Grant, Weber State University Spring 2002

Academic Resources and Computing Committee Grant, WSU, Spring 2002

Excellence in Teaching Award, University of Idaho, 2001

Norman M. Smith Scholarship for Academic Excellence, University of Idaho, 1999

Excellence in Environmental Service/Teaching Award, College of Eastern Utah, 1997

Title III Distance Learning Grant for Course Development, College of Eastern Utah, 1995

PROFESSIONAL SERVICE:

Radio Interview, "Population Growth in Utah and the West" KPCW-NPR, March 31, 2011.

Panel Member, "Liquid Assets," an Evaluation of the United States' Water Infrastructure. Weber State University, Water and the West Series, November 10, 2008.

Session Chair, "Tourism Geographies," Annual Meetings of Southwestern Division of the Association of American Geographers (SWAAG), San Marcos, Texas, October 23-25, 2008.

Session Chair, "Assessing Impacts of Urban Demographic Change," Association of American Geographers, 100th Annual Meeting, Philadelphia, Pennsylvania, March 19, 2004.

Session Chair, "Paper Presentations," Utah Geographical Society, 18th Annual Fall Meeting, University of Utah, Friday, October 18, 2002.

Session Chair, "Paper Presentations," Utah Geographical Society, 17th Annual Fall Meeting, Weber State University, Friday, September 14, 2001.

Geography Editor, Idaho History, A Regional Textbook for Secondary Schools (Billings: Montana Speaks, forthcoming).

Content Consultant and Review, National Geographic Guide to America's Outdoors: Northern Rockies (Washington DC: National Geographic Society, 2000).

Content Consultant and Review, National Geographic Guide to America's Outdoors: Pacific Northwest (Washington DC: National Geographic Society, 2000).

Textbook Review, The Geography of North America, 1st Ed. by S. Hardwick (Holtgrieve, 2010).

Textbook Review, Understanding Physical Geography by Pidwirny et al (McGraw-Hill, 2007).

Textbook Review, Earth Environments by M. Bradshaw (Boston: Mosby-Year Book, 1991).

UNIVERSITY & COMMUNITY SERVICE:

Member, Social Science Tenure Policy Revision Committee, 2011-2012

Member, Campus Environmental Issues Committee, (2010-present)

Advisor, Deliberative Democracy Project, (2008-2010)

Designer, Department of Geography Website, Masthead, and Bookmarks (Autumn, 2008)

Member, Water and the West, ad hoc committee (2008-2010)

Member, Faculty Senate, (2007-2010)

Member, College of Social Science Curriculum Committee, (2007-2010)

Member, Geosciences Accreditation and Review Committee, (Spring, 2008)

Co-Director, Weber State University GIS Users Group, (2006-present)

Faculty Advisor, Geography Club, (2005-2010)

Advisor, BIS, Honors, and Directed Research Students (2003-present)

Member, College of Social Science Computer Committee, (2001-present)

Principle Participant, Major Fest, (2004-present)

Co-founder and Contributor, Geography Alumni Scholarship Fund, (2001-present)

Participant, Service Learning Workshop, February 2008

Member, Department of Geography Faculty Search Committee, (Autumn, 2004)

Member, Department of Geosciences Faculty Search Committee, (Autumn, 2002)

Member, Department of Geography Faculty Search Committee, (Autumn, 2001)

Participant, Civil Rights, Affirmative Action, and ADD Training, (October, 2001)

Cartographic Consultation, Ogden Nature Center Project and Brochure. 2008-2009.

Presenter, "Honeybees", Melba S. Lehner Children's School at Weber State University, (2007).

Volunteer, Weber County Pathways, Trailbuilder, (2007).

Supervisor, Geography Student Community Internships/Service Learning, (2001-present).

Rider and Fund Raiser, American Lung Association Big (bicycle) Ride Across America, (1998).

Raised more than \$6000 in donations and bicycled 3200 miles from Seattle to Washington D.C.

Author, "Introduction to Physical Geography" and "Introduction to Anthropology," six college courses authored and presented via Distance Learning Television Network, College of Eastern Utah. Served communities throughout southeastern Utah and the Navajo and Ute Mountain Indian Reservations in Arizona, New Mexico, and Utah, (1993-1996).

Contributor, State of Utah, Bureau of Land Management's Wilderness Lands Designation Project (1994-1997).

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ALICE MULDER, Ph.D. (Geography), University of Colorado (2003).

TEACHING DEVELOPMENTS & INNOVATIONS: Fall 2011, developing a multi-disciplinary, field-based course, “Stewardship of Public Lands: Fire in the West- Yellowstone and Beyond,” with colleagues from History, Political Science and Botany to be offered Summer 2012.

August 2011, participant in a week-long faculty workshop, “The Stewardship of Public Lands,” offered by the Association of American Colleges and Universities’ American Democracy Project in Yellowstone National Park. This program combined formal presentation from various perspectives and in-the-field actors (e.g., National Park Service wildlife biologist and an administrator, animal rights activists) with our own experience of the place and natural resources, as well as an opportunity to hear from other stakeholders with varying perspectives in the region.

RESEARCH/SCHOLARSHIP:

PUBLICATIONS:

(Under review) Dorsey, Bryan, **Alice Mulder**, and Sidney Noyce, “Planning, zoning and building consensus for transit-oriented development: the case of light rail and streetcar systems in Utah,” submitted to *Journal of Transport Geography*, August 2011.

PRESENTATIONS:

2007, April 17-22, “Place for Sale? Privatism, Community, and Urban Development in Ogden, Utah,” at the Association of American Geographers (AAG) annual meeting, San Francisco, CA.

2006, March 7-12, “Shaping Place: Exploring Issues of Foothills Conservation in Utah’s Wasatch Front,” at the AAG annual meeting, Chicago, IL.

2005, April, “Your Place or Mine? A Consideration of the Politics of Place in the Local Land Conservation Context,” at the AAG annual Meeting, Denver, CO.

2004, March, “People, Place, and Open Space: Thinking about Place in Local Land Conservation,” at the AAG annual meeting, Philadelphia, PA.

March 2002, “Lilliputians at Work Local Land Trusts, Relationships, and Land Conservation in New York’s Hudson Valley,” AAG annual meeting, Los Angeles, CA.

March 2001, “Green Space as Public Space? Rethinking Public Space in the Context of Private Rural Land Conservation,” AAG annual meeting, New York, NY.

April 2000, “Private Property, Public Good: The Paradox of Private Land Trusts, New York’s Hudson Valley,” AAG annual meeting, Pittsburgh, PA.

March 1998, “Living History: Place, Identity, and the Re-Enactment of the 1847 Mormon Trek,” AAG annual meeting, Boston, MA.

March 1997, “For the Love of Place: A Study of Student Environmental Activism,” AAG annual meeting, Fort Worth, TX.

October, 1996, “The Powers of Place: A Framework for the Study of Environmental Activism.” Regional meeting of the AAG, Rocky Mountain-Great Plains division, Greeley, CO.

AWARDS AND HONORS:

Crystal Crest Master Teacher award finalist, 2011.

UNIVERSITY & COMMUNITY SERVICE:

Fall 2011, Geography Department Honors Advisor

Fall 2011, volunteer abstract reviewer for the National Conference on Undergraduate Research (NCUR) being hosted at WSU in 2012.

2011, creation of the pamphlet “WSU Goes Green: A Guide to Sustainability” for the campus community. This began as a class project in my Geography 3060 course spring semester 2011.

2008-present, Faculty Senate Environmental Issues Committee (EIC). My service with this committee has included preparation of the newsletter, work on the film/speaker series, work on recycling signage for the campus, writing definitions regarding sustainability for WSU for the purpose of evaluation under the national Sustainability Tracking and Rating System (STARS), and helping to inventory sustainability-related and focused courses on campus.

2010-2011, and 2011-present, College Curriculum Committee.

2010, October, prepared Department of Geography proposal for BA/BS implementation.

2008-2009, College Scholarship Committee.

2007-2008, Faculty Senate Environmental Initiatives Ad hoc Committee.

2007, August, presentation at the New Faculty Retreat held at Weber State University on “Campus Environmental and Recycling Initiatives.”

2007, Spring semester, conducted a project on recycling at the Davis campus as part of my Geography 3060 course, which led to the creation and posting of informational signs for each recycling bin in the building.

2006-2007, member of the Environmental Initiatives group of faculty, staff, and students brought together by WSU Trustee Kathryn Lindquist. This was the predecessor to the formal faculty senate committee.

2006, August, served on a panel of second-year faculty for the New Faculty Retreat.

JULIE RICH, D.Phil, (Geography) Oxford (2003)

TEACHING EXPERIENCE & INNOVATIONS: I have been associated with WSU for nearly 25 years and teach the following courses: Natural Environments, People and Places, Arid Lands, Weather and Climate, European Geography, Geography of Utah, and Field Studies. I bring to the university and the classroom a wealth of international experience due to traveling to over 87 countries and living for an extended period (over 6 months) in 9. I have organized humanitarian projects in Morocco, Rwanda, Kyrgyzstan, plus consulted at the United Nations for the David M. Kennedy Center for 2 years (2003-05). This international experience has broadened my educational base, given me a greater understanding of landscapes and cultures, and provides a tremendous foundation of knowledge from which to draw when sharing experiences in the classroom to reinforce theories or ideas. I have a very strong belief in getting the student out of the classroom as much as possible and into the earth-space (which is the Geographers Laboratory) that surrounds them. Thus, I have organized five study-abroad programs visiting 25 countries. Conducted student field excursions to 24 western U.S. locations. Over the past five years I have attended 12 different workshops that has helped me implement creative teaching techniques and service learning projects in the classroom. For instance, I have integrated Community Based Learning (CBL) into the curriculum of two courses. In the Geography of Utah class, students coordinated with Friends of the Great Salt Lake to develop lessons plans geared towards 7th grade that

connect Great Salt Lake concepts with the Utah Core Curriculum for social studies (<http://www.fogsl.org/education/additional-educational-resources>). In the Cooperative Work Experience Class this semester, students are producing a digital “Ogden Green Map”, which maps items such as sustainability practices, local businesses, places of scenic beauty, etc. for the city of Ogden. <http://www.greenmap.org/greenhouse/en/home>. I endeavor to involve students in research. I recently received in-house funding to investigate and optically date the St. Anthony Dunes, Idaho. Students assisted with fieldwork. One student is following through with sample preparation and recently submitted an abstract to the National Conference on Undergraduate Research, which meeting will be held at WSU in March 2013.

RESEARCH/SCHOLARSHIP:

Refereed Publications:

J. Rich and S. Stokes, “200,000-year record for late Quaternary Aeolian sedimentation on the Southern High Plains and nearby Pecos River valley, USA” *Aeolian Research*, March 2011, Vol. 2:221-240.

Julie Rich, “South Arm Circulation of the Great Salt Lake” in **Physical, Chemical and Economic aspects of the Great Salt Lake, Utah**. J. Wallace Gwynn, editor, Utah Geological Survey, Department of Natural Resources Special Publication, January 2003, 584 pgs.

J. Rich, S. Stokes, W. Wood, R. Bailey, “Optical dating of tufa via in-situ aeolian sand grains: a case example from the Southern High Plains, USA”, *Quaternary Science Reviews*, 2003, Vol. 22:1145-1152. (ISI Impact Factor – 4.113)

Warren Wood, Stephen Stokes, and **Julie Rich**, “Implications of water supply for indigenous Americans during Holocene aridity phases on the Southern High Plains, USA”, *Quaternary Research*, 2002, Vol. 58:139-148. (ISI Impact Factor – 2.319)

J. Rich and S. Stokes “Optical dating of geoarchaeologically significant sites from the Southern High Plains and South Texas, USA”, *Quaternary Science Reviews*, 2001, Vol. 20:949-959. (ISI Impact Factor – 4.113)

Warren W. Wood, **Julie Rich**, and Stephen Stokes, “Location of Water Supplies during Periods of Aridity in the Late Pleistocene and Holocene, Southern High Plains, USA”, Geological Society of America, 2001 annual meeting, Abstracts with Programs - *Geological Society of America*. S. Stokes, A.E.L. Colls, M. Fattahi, **J. Rich**, “Investigations of the performance of quartz single aliquot D_e determination procedures”, *Radiation Measurements*, 2000, Vol. 32:585-594. Stephen Stokes, **Julie Rich**, Jim Swinehart, “Holocene timing of megabarchan dune construction in the Nebraska Sand Hills”, Geological Society of America, Oct. 25-28, 1999 annual meeting, Boulder CO, Abstracts with Programs - *Geological Society of America* 31, No. 7: 231. (ISI Impact Factor – 2.82)

J. Rich and S. Stokes, “Holocene chronology for lunette dune deposition on the Southern High Plains, USA”, *Zeitschrift für Geomorphologie*, 1999, Supplement band 116: 165-180.

J. Rich and S. Stokes, “New applications of luminescence dating to Late Quaternary lunette deposits on the Southern High Plains, USA”, *Current Research in the Pleistocene*, 1999, Vol. 16:143-146.

Non-Refereed Publications:

Julie Rich, “Glacial Ice, Global Warming, Global Warning”, an interview with James Balog, *Weber: The Contemporary West*, (to be published Spring/Summer 2012)

ORAL PRESENTATIONS:

Geology Seminar Series, Utah State University, Logan, Utah January 2011, *Oral presentation*: “Quaternary eolian sedimentation on the Southern high Plains, Texas”

Annual Conference on Civic Engagement – Utah Campus Compact, February 2011, West Valley City, Utah, *Oral presentation*: “Interdisciplinary Service-Learning and the Green Map[®] System”

Luminescence and Electron Spin Resonance Dating (LED) Conference June 2002, Reno, Nevada
Oral presentation: “Optical Dating of tufa via in-situ aeolian sand grains: a case example from the Southern High Plains, USA”

University of Oxford Guest Lecture Series, Oxford, England, June 2001 *Oral Presentation*: “High Plains Drifter-the Sand Seas of the Southern High Plains”

University of Oxford Research Laboratory for Archaeology and the History of Art-Lecture Series, Oxford, England, April 2001 *Oral Presentation*: “Southern High Plains playa basin lunettes: A record of climate change for the past 250,000 years”

Utah Geographical Society, 17th Annual Fall Meeting, Weber State University, September 14, 2001
Oral Presentation: “Southern High Plains lunettes”

Luminescence and Electron Spin Resonance Dating (LED) Conference September 1999, Rome, Italy *Poster*: “Optical Dating of Geoarchaeologically-Significant Sites from the Southern High Plains and South Texas, USA” *Oral Presentation*: “An Empirical evaluation of SAAD and SAR procedures”

Luminescence Conference, May 1999, Aberystwyth, Wales *Oral Presentation*: “Preliminary results of dating sediments from the Southern High Plains, USA”

University of Oxford Quaternary Lecture series, Oxford, England, February 1999 *Oral Presentation*: “Quaternary Environments of the Southern High Plains, USA”

Luminescence and ESR Research Seminar, Cheltenham, England, September 1998

Oral presentation: “Chronologies for Later Lunette deposition of the Southern High Plains, USA”

International Conference on Aeolian Research (ICAR), Oxford England, July 1998 *Oral presentation*: “Chronostratigraphy of later Quaternary lunette deposition on the Southern High Plains, USA: Implications for their formation and palaeoclimatic significance”

Association of American Geographers (AAG) National Meetings, San Diego, CA, USA Spring, 1992
Oral presentation: “Lithuania and the Baltic University”

RESEARCH PROJECTS AND GRANTS:

RSPG Committee Faculty Vitality Award, “Optical Dating and Investigation of St. Anthony Dunes, Idaho”, Weber State University - \$2500.00 (2010)

Alan E. and Jeanne N. Hall Endowment for Community Outreach, “Green Mapping Project”, Weber State University - \$11,520.00 (2010)

Hemingway Collaborative Award, “Green Mapping Project”, Weber State University - \$5900.00 (2010)

R.A.M.P. Grant, “Green Mapping Project”, Weber County - \$2000.00 (2010)

Hemingway Faculty Excellence Award, “Rwanda Well Project”, Weber State University - \$3000.00 (2006)

University of Oxford, School of Geography - \$800.00 Research grant (1999)

United States Geological Survey, Research grant to study lunette dunes in Texas - \$2500.00 (1999)

University of Oxford, St. John's College - \$900.00 Research grant (1998)

Hemingway Foundation, Research grant - \$1200.00 (1992)

Weber State University, Development grant - \$1250.00 (1991)

AWARDS AND HONORS:

Crystal Crest Master Teacher Award 2011-Finalist

Outstanding Civic Engagement 2010-Finalist - Utah Campus Compact

Hemingway Collaborative Award, 2010

Annual Faculty Awards, 25-years of Service, March 24, 2009

Hemingway Faculty Excellence Award, 2006

Nominated for Crystal Crest Master Teacher Award, 2003, 2005

Teaching Fellow, University of Utah, 1989-1991

National Sojourners Award 1979

UNIVERSITY & COMMUNITY SERVICE:

Since 2005-2011 served on the following committees: General Education, Scholarship, University Council on Teacher Education, Curriculum, Computing Services, Young Woman Scientist, Online Course Evaluation. Departmental duties include: Faculty Review committee, Faculty advisor for Gamma Theta Upsilon and Geography Club, internship and academic advising.

Over the past 9 years have offered 23 community presentations on topics ranging from "The Geography of Frankenstein" to "The Mississippi River in Tom and Huck's Adventures".

As President of the Worldwide Organization for Women (WOW) (www.wowinfo.org), I have helped implement a new program, with Afton Beutler (VP of WOW) - the Global Education Opportunity (GEO) that allows students to live and work in Geneva, Switzerland under the direction of WOW. Students spend about half of a semester in Geneva doing research on global challenges, attending and presenting at UN meetings. The second half of the semester students are offered a grass-roots learning experience in one of the countries faced with the issues they had been researching in Geneva. This past school year (2010-11) WSU students participated in the GEO Program, where they had the opportunity to go to Geneva and attend the World Health Forum and Human Rights Commission. Students then worked with a grassroots organization, the Girl Child Network Worldwide (GCNW) (<http://girlchildnetworkworldwide.org>), located in Essex, England headed by Betty Makoni, a CNN nominated Hero of the Year 2009. The student's work focused on helping to ameliorate women's health issues for disadvantaged women and girls worldwide.

Organized the Worldwide Organization for Women Conference "Women and Their Worldwide Influence for Peace" held at Weber State University (October 2009). Keynote speaker - Asha Hafi Elmi, founder of the "Save Somali Women and Children (SSWC)" and 2009 Clinton Global Citizen Award winner.

Organized a community humanitarian project in 2008 to supply a Kyrgyzstan orphanage with educational supplies, wheelchairs, clothing, and swing sets. Other donated service hours include volunteering for the "Special Olympics Utah Winter Games" and the "Ogden Volunteer Earthquake Drill and Resource Fair".

Organized the Rwanda Well project, an international service-learning project that brought needed water and light to an orphanage/educational center in East Africa. The project raised \$22,871.95 and included

traveling, with six WSU students, to Rwanda to oversee the well-drilling project and the installation of solar panels plus cisterns for water storage.

Representative for David M. Kennedy International Center (Brigham Young University) for consultative work at the United Nations, Geneva, Switzerland (2003-2005).

APPENDIX F: COMMUNITY PARTNERS (partial listing)

<u>Name</u>	<u>Employer</u>
Shaunna Burbidge	Envision Utah; Metro Analytics and Active Planning
Erik Crosman	University of Utah, Department of Meteorology
Janet Hoffman-Stewart	Sheridan, WY Planning Office
John Horel	University of Utah, Department of Meteorology
Mayor & City Council members	Marriott-Slaterville City
Mayor & City Council members	Ogden City
Mayor & City Council members	PlainCity
Mayor & City Council members	Sunset City
Scott Mendoza	Weber County Planning Office
Greg Montgomery	Ogden City Planning Office
Justin Morris	Weber County Planning Office (WSU Geog. Grad.)
Planning Officials	Washington Terrace City
Claudia Radel,	Utah State University, Dept. of Natural Resources
Rob Scott	Weber County Planning Office, Director
Adam Sobek	Director of the DIGIT Lab, University of Utah
Ray Wiggins	Redcon Inc., Bountiful, UT

A list of Community Partnering Agencies can be found at:

<http://www.weber.edu/geography/default.html>

APPENDIX G: GRADUATE STUDENTS & CAREER PLACEMENTS

WSU Geography Alumni in Planning (Urban and Regional Planning) Careers since 2000:

Sean Allen, Planner, Sandy City, UT
David Bennett, Utah Transit Authority, SLC, UT
Gregg Benson, Planning Director, Clearfield City, UT
Trevan Blaisddell, Utah Transit Authority, Ogden, UT
Scott Burningham, Utah Transit Authority, SLC, UT
Shaunna Burbidge, Metro Analytics and Active Planning, Northern Utah
Dennis L. Marker, Community Development Director, Santaquin City, UT
Steven McRann, Planner, Evanston, WY
Scott Mendoza, Planner, Weber County, UT
Justin Morris, Planner, Weber County, UT
Thomas Powell, Planner, Planner, Rock Springs, WY
Justin Ryan, Planner, Marion County, Ocala, FL
Joseph Simpson, Planner, Ogden City, UT
Brandon Toponce, Assistant Planner, Centerville City, UT
Shaun Wilkinson, Planner, Weber County, UT
Chad Wilkinson, Community Development Planner, Murray, UT

WSU Geography Alumni in Cartography/GIS Careers:

Andrea Douglass, Ogden City GIS , UT

Justin Hillier, National Intelligence Service NIS

James McBride, Weber County GIS, UT

A list of agencies employing our graduates can be found at:

http://www.weber.edu/geography/News_and_Events/Recent_Graduates.html

WSU Geography Alumni Entered in Graduate Programs since 2000:

Sean Allen, University of Utah, Public Administration

David Breen, Weber State University, Education

Shaunna Burbidge, University of California- Santa Barbara, Ph.D. Geography

Scott Burningham, University of Utah, Planning/Geography

Rebecca Ciconne, University of Nevada-Reno, Natural Resource Management

Greg Fryer, University of Utah, Geography/GIS

Deanna Halseth, University of Utah, Geography

Will Haurand, University of Utah, Geography

Alisha Jiminez, Texas State University, Geography

Josh Jones (BIS), University of Kansas, Public Administration

John Mathias, University of Utah, Asian Studies

Julie McGrew, Utah State University, Natural Resource Management

Andrew Phillips, University of Colorado, Environmental Law

Marshall Roses, University of Oregon, Geography

Annette Snow, University of Utah, Geography

Daniel Svensson, University of Arizona, Geography

WSU Geography Alumni Entered in Graduate Programs before 2000:

Matt Sagers, Ph.D., geog, Ohio State.

Ethan Jorgenson, M.A., geog, UCLA

Raymond Rounds, J.D., Idaho

Greg Schlenker, Ph.D. geog, Texas A&M

Pak Yen Lim, geography, Kansas, U.C. Santa Barbara

Blake Hills, M.S. , J.D., planning, law, Utah

Eugenie Williams, Ph.D., geog, Clark

Robin Pesca, geog, Utah

Richard Frye, geog, Chicago

Chris Hall, M.A., geog, Syracuse

Mike Havertz, geog, Utah

Kevin Poff, M.S. , geog, Utah State

Colin Homer, M.S., geog, Utah State