Indiana State University

2004 - 2005 Academic Annual Report

Department of Geography, Geology, Anthropology

Year in Review

Accomplishments

As you have heard, increasing public awareness of Indiana State University's accomplishments is crucial to building student enrollment, influencing policy makers, and developing a place of pre-eminence in the Midwest. What do you consider to be your department's 5-10 top accomplishments for the 2004-2005 year that will help contribute to this effort?

International academic involvement: Welcomed Two Fullbright Scholars who participated in research activities involving our Geography Program: Fullbright Visiting Scholar, Dr. Lai Vinh Cam, Institute of Geography, Vietnamese Academy of Sciences, Hanoi. January - September 2004. Fullbright Visiting Scholar, Dr. Taieb Boumeaza, Hassan II University – Mohammedia, Morocco. September – December 2004. Co-hosted the Vietnamese Delegation visiting from Institute of Geography, Vietnamese Academy of Sciences, Hanoi. September 8 – 16, 2004. GGA signed a Memorandum of Cooperation with the Vietnamese Academy of Science and Technology's Institute of Geography. Co-hosted Visiting Scientist from The University of Newcastle, Australia. Dr. Howard Bridgman is aProfessor of Geography in the School of Environmental and Life Sciences. He worked with Dr. John Oliver, Geography emeritus faculty member and with geography colleagues at Indiana University. Co-hosted four faculty members in July from Mzuzu University in Malawi. This was made possible through a USAID grant with Susan Macke, ISU College of Education. ISU Geology Professor invited to present research (P. Dutta) at International Geological Conference held in Florence, Italy on August 22, 2004. ISU Geology Assistant Professor (A. Rathburn) invited to present and participate in the Venice Water Authority/International Venice Lagoon Workshop Meeting (March 2004) and has been invited back in late June 2005 along with an undergraduate geology major to participate in the 2005 international workshop/meeting. ISU Geology Assistant Professor (A. Rathburn) invited to teach a week-long graduate and post-graduate level course at the University of Concepcion in Chile (January 2004)with post-doctoral researcher, E. Perez, as course assistant. *** National Academic Involvement: Collaborative NSF research involving Peridical Cicadas and Forest Community Dynamics. Research conducted by J. Speer (with K. Clay from IU-Bloomington). Faculty organizer J. Speer, has been selected to organize the North American Dendroecological Fieldweek again (3rd year) in Idaho during late June 2005. J. Speer will have 3 (2 geography and 1 geology) graduate students assisting with the field week. New initiative: In July 2004, the "Center for Urban and Environmental Change" (director: Q. Weng) replaced the former "Center for Urban and Regional Studies". The new Center is focused on studies of the causes, effects, and responses to environmental change in cities and urban/suburban areas, especially those in Indiana and the Midwest. Programs and activities relate to both the science and the management of urban environmental change, including policy, regulation, technology, impact adaptation, mitigation, and remediation.

Research and Scholarship

What is your assessment of accomplishments in the area of research and scholarship? Are you satisfied overall? In which areas do you feel your department does particularly well? In which areas do you feel your department needs to improve?

Our department faculty and graduate students excel in research and scholarship. We continue to

increase our productivity as individuals and as collaborators. In part, this is possible because of funds being made available for experiential learning. Note: The count listed above does not include those FAR forms that were NOT electronically entered... 2 books have been authored/edited and at least 3 journals are edited by GGA faculty members.

Grants, Contracts & Off Campus Professional Service

What is your assessment of accomplishments in the area of grants, contracts, and off campus professional service? Are you satisfied overall? In which areas do you feel your department does particularly well? In which areas do you feel your department needs to improve?

Faculty in our department excel at pursuing and being granted research opportunities, contracts (Anthropology Lab), and contributing to off-campus professional service. We are striving to increase our off campus professional service involvement over the next academic year.

Best Practices

Describe the progress your unit has made thus far. Were you able to take these steps? What steps or goals have been particularly difficult to achieve and why? What practices, actions, initiatives are you doing that could be considered eminent?

We have: A: retained all faculty members since July 2002 and recruited 2 new hires in that time period. B: completed our faculty retreat (February 2005) and started working out the logistics of several initiatives: possibility of a common Ph.D., identifying common courses (cross-disciplinary) to assist with enrollment concerns, and provided a portion of our subvention funds for direct use by PI's on subvention-generating grants. C: addressed student advising-related issues by involving more faculty as advisors. Most successful has been our attempts to increase experiential learning opportunities for our students.

Student Credit Hours

What did you learn? What steps will you take during 2004-05 to meet your department's student credit hour target by fall 2005?

We remain "in line" with SCH target predictions.

Budget

Identify and describe any collaborative efforts that have been undertaken by your department with other academic or administrative units to maximize resources to meet departmental goals. Please also consider collaborative opportunities with external partners.

GRANTS: Indiana Department of Natural Resources, 2003-2006. "Biodiversity and Habitat Mapping for Indiana." ($588,253: PI: S. Berta CoPI with C. Amlaner, J.Whitaker, and Q. Weng). Cooperators include J. Speer, R. Jensen, S. Lima, and P. Scott. Teacher Development in Earth science at Mzuzu University, Malawi, Africa. Co-investigators include S. Macke, E. Chaqra, R. Jensen, J. Gatrell, and Q. Weng. BOOKS: GEOSPATIAL TECHNOLOGIES IN URBAN ENVIRONMENTS, 2005. Authors: R. Jensen, J. Gatrell, and D. McLean (eds). Heidelberg, Germany: Springer-Verlag. NOTE: numerous chapters in this book were co-authored by ISU faculty and graduate students. THE GLOBAL ECONOMY: SPATIAL CONTEXT AND REGIONAL CHANGE, 2nd Edition. Authors: J. Gatrell and N. Reid. Dubuque, IA: Kendall-Hunt. (N. Reid is an external collaborator) Instructor's Manual and Test Bank. 2004. To accompany "Globalization and Diversity"; each authored by N. Obermeyer. Upper Saddle River: Prentice Hall. ARTICLES: Remote Sensing, GIS and geostatistical topics published with colleagues and/or students in: ECOLOGY AND SOCIETY, TOXICOLOGOICAL AND ENVIRONMENTAL CHEMISTRY,

ARBORIST NEWS, GEOCARTO INTERNATIONAL, INTERNATIONAL JOURNAL OF REMOTE SENSING, SOCIETY AND NATURAL RESOURCES, ENVIRONMENTAL GEOLOGY, GISCIENCE AND REMOTE SENSING, JOURNAL OF ARBORICULTURE, REMOTE SENSING OF ENVIRONMENT, JOURNAL OF ENVIRONMENTAL MANAGEMENT, PHOTOGRAMMETRIC ENGINEERING AND REMOTE SENSING, Methods and basic science research published with colleagues and/or students in: JOURNAL OF ARCHAEOLOGICAL SCIENCE; INTERNATIONAL JOURNAL OF THE HUMANITIES; GEOCHEMISTRY, GEOPHISICS AND GEOSYSTEMS; RESEARCH IN GEOGRAPHIC EDUCATION; JOURNAL OF SCIENCE TEACHER EDUCATION; GEOMICROBIOLOGY; ENVIRONMENTAL GEOLOGY; ENVIRONMENTAL CHEMISTRY AND ECOTOXICOLOGY; JOURNAL OF GEOPHYSICAL RESEARCH; GEOLOGY; JOURNAL OF GEOLOGY; TREE-RING RESEARCH; THE HOLOCENE; THE HOOSIER SCIENCE TEACHER; THE PROFESSIONAL GEOGRAPHER; THE GREAT LAKES GEOGRAPHER; JOURNAL OF THE INDIANA ACADEMY OF SOCIAL SCIENCES; and PROGRESS IN PHYSICAL GEOGRAPHY.

Outreach

What are the outreach opportunities for your discipline? (non-traditional modes of delivery and timing, etc)

We offer 5 web-based general education courses (GEOG 115, 130, 210, 314 and 431)and 2 distance education courses (ANTH and GEOG 130). We offer multiple sections of GEOG 111 and GEOL 160 through the correctional facility program.

Assessment

For each program in the department, provide one or two examples of how the program is using assessment and evaluation (student outcomes, program review, and/or accreditation) to enhance student learning and program strength this year.

Geography - recently changed instructors for one of our required undergraduate courses after evaluating comments included in student outcome assessments from past and current students in an effort to increase retention of majors. Geology - establishing "learning communities" among majors to assist with success in calculus, physics and chemistry courses required outside of geology courses. Anthropology - developed and offered a capstone course that is more relevant to Anthropology (and Geography and Geography) majors than was previously available to our students.

Strategic Initiatives

Development Activities

What steps have you taken to support development activities in your department? How can your efforts be supported?

We offer up to $300 towards travel-related expenses per year for qualified undergraduate and graduate students who are presenting their research at a geography, geology, and/or anthropology conference. Many students present their research in poster format. GGA absorbs the cost of printing and laminating one poster per student per academic year to encourage their participation in national, regional and local conferences. Funding for these travel allocations is provided from our department's subvention account. Faculty are offered travel funds (up to $500 for tenured faculty and up to $800 for non-tenured faculty) per year to be used towards reimbursement for those faculty members presenting their research at a nationally- or regionally-recognized conference.

Experiential Learning

Please provide examples of experiential learning in which your department was engaged in 2004-2005.

July 2004: Research Cruise off coast of Anchorage, Alaska: 3 undergraduate geology majors, 1 graduate geology student, 1 post-doctoral research scientist and 1 geology faculty member participated in 2-week long expedition. Marine research scientists and 60 undergraduate and graduate students from the University of San Diego and Scripps Institution of Oceanography also participated. July 2004: 4 students participated in the 14th Annual North American Dendroecological Fieldweek (held in Itasca State Park, Minnesota this year). This is an international workshop that was organized by Dr. James Speer (GGA) and partially supported through GGA. October 2004: Third successive year, students participated in a marine research cruise off coast of San Diego, California: 3 undergraduate geology majors and 1 post-doctoral research scientist participated in 24-hour, educational/research cruise run by the University of San Diego. Courses involving extensive "field-based" experiential learning included GEOG 490/590: Biogeography (2 week field trip to various federal lands throughout southwest U.S.), GEOG 442: Conservation of Natural Resources (2 week field trip to various federal lands throughout the Rocky Mountains), GEOL 575: Stratigraphy and Sedimentation (4 weekend field trips to central Missouri, Tennessee, and southern and central Indiana), GEOL 4/565, GEOG 4/565, and ANTH 4/565 (cross-listed): Fundamentals of Tree Ring Research (various federal lands studied from Indiana to Utah over Spring Break as well as 5 local day-long field trips to ISU field campus in Brazil, Forest Park, Keiwig Woods, and Landsbaum Woods), GEOG 4/515: Field Geography of the United States (2 week field study in southern Colorado's San Isabell National Forest), and ANTH 4/569: Archeological Field School (5 weeks of daily field study at an archeological site in Vigo Co.). Many of our courses are not "field-based" yet still incorporate experiential learning (mapping exercises in GEOG 110, 111, 112, 115, 242, 312, 314, 316, 4/505, 4/506, 4/507, 4/508, 4/512, 4/516, ...

Future Goals

Future Goals

The University is highlighting experiential learning, community engagement, and eminent programs as aspects of our campus that will attract students and resources. How is your department planning to contribute to these strategic initiatives in ways that will help ISU be recognized as a Pre-eminent University?

Experiential learning: Attempt to maintain and, if possible with the predicted upcoming budget shortfalls, increase our capacity to offer field-based experiential learning for our students. This will include internships as well as projects targeted at community "quality of life" improvements. Community Engagement: Currently we have several faculty members who serve as board members on connunity-based organizations. We will explore and expand the internship opportunities that may be available through these organizations. We will continue to look for opportunities to become more engaged in community development. Eminent Programs: Our existing excellence in geospatial research (primarily remote sensing and GIS-related research) will continue to evolve. With this evolution comes an increasing opportunity to search for funds to support graduate and undergraduate research assistants and an ever-incrasing opportunity to attract more qualifed students to our programs.