

2014-2019 Strategic Plan
Department of Geography, Geology, and the Environment
Illinois State University

Adopted February 21, 2014

PREFACE

The Department of Geography, Geology, and the Environment is among the most diverse in the University in terms of faculty interests and expertise. Teaching and research in Human Geography explores spatial patterns of human behavior and activity. Its sub-disciplines include urban, political, and regional geography. Geology and Physical Geography involve the scientific investigation of the physical spheres of our environment including the nature of the Earth's interior, the lithosphere, hydrosphere, biosphere, and atmosphere, as well as forces that influence the development, distribution, and organization of such features. The interactions between these natural systems and our societies are explored through the lens of Environmental Geography. The state-of-the-art methodologies and technologies that allow us to investigate the construction of multidimensional representations of the Earth and study the various natural and human systems (as well as the interaction between them) include cartography, satellite imagery interpretation, Global Positioning Systems, and Geographic Information Systems (GIS) and Science.

Geography, Geology, and the Environment comprises of 14 tenured or tenure-track faculty members (including the chair) and four support staff that support the teaching and research missions in the aforementioned scientific and humanistic areas. The cornerstones of the Department are our traditional B.S./B.A. programs in geography and geology, each with a teacher education sequence. Our educational philosophy is firmly rooted in the liberal arts tradition. The common goal of each of these programs is to graduate broadly trained students who are equally prepared to pursue an advanced degree or obtain suitable employment as professionals within or outside of the discipline. These cornerstones are strengthened by our involvement in the interdisciplinary minor programs, including Environmental Studies, which allow us to service students who pursue degrees in other programs.

The graduate degree program offered by the Department is an M.S. program in Hydrogeology. This program is highly specialized; it involves assessing and solving societally relevant, scientifically important problems through applied and theoretical research in the broad field of groundwater science.

The Department is an essential contributor to the General Education curriculum, has played an important role in the development of the program, and will continue to do so as the program evolves and matures.

The following pages outline the five major Goals supported by numerous Priorities and Action items that together depict our mission, vision, and values, and constitute the *2014-2019 Strategic Plan*.

GOAL 1: Strengthen and enhance the quality, capability, and commitment of our faculty

Priority 1: Maintain a high-quality, broadly trained, and diverse faculty of at least 16 tenure-line positions. (E.I. Goal 2; CAS Strategic Focuses 1 and 3)

Action: Seek return of all vacated tenure-line faculty positions. In 2001, Geography, Geology, and the Environment had 16 tenure-line faculty members. At the time of this writing we have 13.

Adequate tenure-line faculty staffing is essential for us to advance our mission. As tenure-line faculty lines are filled, we will not seek variance to pay for the great many part-time non-tenure line individuals who are part of our staff now.

Action: Attempt to fill the vacant positions with broadly trained individuals who are able to contribute to several aspects of our programs.

Action: The hiring priority, in terms of faculty expertise in Geology, include geophysics, hydrogeology, and mineralogy/petrology. In Geography is in climatology or meteorology. These priorities will be evaluated annually in light of new hires and faculty vacancies.

Action: Maintain a faculty where at least three tenure-line individuals have international regional expertise. Add to our faculty expertise in regions such as Africa and South Asia/East Asia.

Action: Actively recruit faculty candidates from underrepresented groups.

Action: Continue to seek competitive salaries for incoming and continuing faculty.

Action: Continue to seek appropriate startup packages for incoming faculty.

Action: Develop and grow endowed faculty positions.

Action: Improve the existing research and plan for new dedicated space for the department to ensure appropriate research laboratory space and office space for faculty members.

Action: Enhance the teaching facilities.

Action: Continue to develop and maintain computer infrastructure for research and teaching.

Action: Obtain permanent support staff necessary to assist lead staff in the Departmental Office.

Priority 2: Set appropriate and unambiguous scholarly productivity standards for tenure and promotion. Enable faculty to meet these goals. (E.I. Goal 2; CAS Strategic Focus 1)

Action: Encourage all faculty members to maintain scholarly activity of an average of 1 publication per year. Most of these publications should be 1) senior-authored, 2) peer-reviewed, and 3) in leading journals or other appropriate outlets.

Action: Recognize and respect fundamental differences in publication rates and publication venues, and the role of collaborative research for the various specialties represented by our faculty.

Action: Encourage faculty to apply for external and internal grants to support research and other professional activities. Set a departmental goal of >\$300,000 in external support annually.

Action: Increase our pursuit of scholarly grants from prestigious sources like NSF, including through collaborations, in order to enhance the reputation of our faculty and generate indirect costs.

Action: Encourage the development of partnerships with other programs and centers that support research.

Action: Faculty members will regularly take leadership positions on editorial boards and in national and international professional societies.

Priority 3: Ensure that all tenure-line faculty members have equitable and appropriate teaching loads that are in balance with scholarly and service expectations. (E.I. Goals 2 and 3; CAS Strategic Focus 1)

Action: Maintain appropriate balance between teaching and other commitments. Over the past 5 years, the mode has been about 4 courses per year. A one-course release per semester is given to active scholars. Large lectures can be double-counted. Instruction of associated labs, scholarly or

service commitments, student research advisement, academic advisement, administrative appointments, or other situations may also warrant a further reduction in teaching load.

Action: Encourage faculty to develop advanced courses in their areas of expertise and interest to help enhance their scholarship. Modify the curriculum to accommodate these new courses.

Action: Tenure-line faculty members, as staffing levels permit, will teach a combination of general education and advanced courses regularly.

Action: Promote teaching excellence through participation in CTLT events.

Action: Nominate tenure-line faculty for teaching awards as appropriate.

Priority 4: Enhance research support for faculty. (E.I. Goal 2 and 3; CAS Strategic Focuses 1, 2, and 3)

Action: Permit course releases for productive scholars.

Action: The Department will support research sabbaticals for faculty when they are eligible.

Action: Increase travel funds for faculty to attend professional meetings.

Action: Encourage faculty to develop collaborative research relationships with scholars and researchers in other departments, universities, and agencies.

Action: Where appropriate, encourage faculty to sit on graduate committees in other departments and at other universities.

Action: Nominate faculty for research awards.

Action: Reallocate space to develop new laboratories and offices.

Action: Develop a centralized inter-departmental laboratory space for environmental analysis.

Action: Looking long term, begin the process of planning for a new facility. The research and instructional facilities at Felmley Hall are insufficient for modern Geography and Geology programs.

Action: Grow GEOMAP.

Priority 5: Maintain department climate that values collegiality, diversity, and shared governance. (E.I. Goal 3 and 4, Strategic Focuses 1, 2, and 3)

Action: Reevaluate and revise by-laws regularly.

Action: In the spirit of shared governance, all departmental faculty members will serve at least one term on a University or College Committee in any five-year period.

Action: Maintain a brown bag series for faculty that highlights faculty teaching and research.

Action: Encourage all faculty members to regularly attend and participate in the GGCEO colloquium and endowed lectures.

Action: Encourage all faculty members to participate regularly in department-sponsored events, such as student career development events and commencement.

Action: Encourage all faculty members to participate in all aspects of the program, including mentoring student research, participating in student extracurricular activities, and participating in governance at the department level.

Action: Maintain a “common” time when all faculty can gather for informal discussion.

GOAL 2: Strengthen and enhance the undergraduate programs and offerings

Priority 1: Attract a greater number of capable, motivated students to our major programs. (E.I. Goal 1 and 2; CAS Strategic Focus 1)

Action: Serve 200 undergraduate majors annually. This includes 60 in geology, 65 in geography, 25 in ESSE and 50 in GTE.

Action: Have 50 students complete their degree requirements annually.

Action: Work closely with the Admissions Office and Academic Advisement to ensure that incoming freshmen are aware of the opportunity to major in our programs.

Action: Continue to develop strategies and scholarship programs to be used, in part, for recruitment of majors from high schools and community colleges.

Action: Increase the percentage of students who are enrolled in the Honors Program.

Action: Actively recruit majors from the 100-level General Education GEO courses: 102, 138, & 142.

Action: Maintain recruiting activities – student lunches, open houses, visits to Geography, Geology, and the Environment classes, etc.

Action: Encourage clubs to mentor incoming (freshman) majors (e.g., events, field trips).

Action: Encourage a greater number of students to utilize Illinois Geographic Alliance (IGA) resources and participate in IGA workshops, conferences, and programs.

Priority 2: Enhance curricular and co-curricular activities. (E.I. Goal 1 and 2; CAS Strategic Focuses 1, 3, and 4)

Action: Foster an environment where all faculty members take an active role in mentoring of students.

Action: Maintain the diversity of elective courses.

Action: Continue to support our high quality field course in Geology as the capstone experience in Geology.

Action: Continue to support our high quality internship program as part of the capstone experience in Geography.

Action: Develop internship partnerships with industry and government agencies for Geology students.

Action: Continue to offer field experiences to students in all programs.

Action: Increase the percentage of students engaged in research projects.

Action: Increase student participation in professional society meetings.

Action: Continue to offer outstanding career development opportunities for our students.

Action: Increase the number of students participating in the ISU Undergraduate and Graduate Research Symposia.

Action: Institute a forum for oral presentations of student research.

Action: Increase Undergraduate Teaching Assistant (UTA) opportunities

Action: Encourage students to apply for internal and external scholarships and awards.

Action: Encourage a greater percentage of majors to take advantage of our GGGeo colloquium series.

Action: Invite students to participate in a “common” time for informal discussion.

Action: In Geography, restructure our academic advisement model to include all faculty members mentoring advanced students. Continue to develop and modify the concentrations.

Action: Increase the opportunity for field studies by developing additional regional and area studies courses, and build in field trips to existing courses.

Action: Integrate student research into GEOMAP.

Action: Encourage a greater percentage of our recent Geography graduates to pursue graduate degrees.

Action: Maintain significant percentage (>40%) of our recent Geology graduates to pursue graduate degrees.

Action: Maintain the high percentage (>80%) of all our majors whose first career step is strongly related to their degree.

Priority 3: Develop a new undergraduate degree program in Environmental Science and Studies. (E.I. Goals 1, 2, and 3; CAS Strategic Focus 1)

Action: Finalize the proposal for submission to the University and Illinois Board of Higher Education.

Action: Obtain three new tenure-line faculty positions with primary responsibilities to support instruction, research, and capstone supervision in the Environmental Program.

Action: Develop collaborations with other departments and units to solidify the interdisciplinary nature of the program.

Action: Continue to build library holdings related to the mission of the program.

GOAL 3: Strengthen and enhance graduate programs and offerings

Priority 1: Attract and retain high quality graduate faculty. (E.I. Goals 1 and 2; CAS Strategic Focuses 1 and 3)

Action: Obtain two new tenure-line faculty positions with primary responsibilities to support instruction, research, and thesis supervision in the Hydrogeology Program.

Action: Reduce teaching load by one course per year for faculty who advise three or more graduate theses.

Action: Obtain permanent support staff necessary to maintain department research facilities such as laboratories, specialized scientific instruments, field stations, and computing facilities.

Action: Increase the number of faculty who contribute to graduate research and teaching.

Action: Maintain interactions with other institutions and state agencies.

Action: Grant Adjunct Faculty status to outside scientists that continually interact with the program.

Priority 2: Attract and retain high quality graduate students in Hydrogeology. (E.I. Goals 1, 2, and 3; CAS Strategic Focuses 1 and 3)

Action: Increase T.A. stipends to \$13,000/year in order to attract excellent students and allow them to concentrate on their studies.

Action: Encourage graduate faculty to obtain grants with monies for graduate R.A. positions. Set goal of at least five externally supported graduate students per year.

Action: Continue to seek alternative sources of summer funding for graduate students.

Action: Maintain an enrollment of about 16 students annually in Hydrogeology.

Action: Graduate an average of 6 students annually in Hydrogeology.

Action: Obtain and maintain modern equipment necessary for graduate student education and research.

Action: Modify the admission requirements to attract students who have a B.S. degree in disciplines other than Geology. This includes reducing the number of deficiencies on a case-by-case basis.

Action: Maintain the program webpage to advertise the program and attract students.

Action: Maintain the number of student applications each year at about 20.

Action: Increase the quality of the incoming students including increasing the average GRE scores.

Action: Increase student participation in professional internships whenever appropriate; increase the diversity of internship possibilities.

Action: Increase the percentage of students who engage in peer-reviewed publication.

Action: Recap instructional labs and classrooms regularly to ensure we remain at the leading edge of instruction and research.

Action: Establish an endowment designed to provide graduate students with small stipends to cover research expenses.

Priority 3: Enhance the reputation of our graduate program on and off campus. (E.I. Goals 1, 2, and 3; CAS Strategic Focuses 3 and 4)

Action: Continue to build research partnerships with business, government, and industry.

Action: Increase the participation of scientists external to ISU.

Action: Increase collaboration with other departments such as Biology, Chemistry, Agriculture, and Health Sciences.

Action: Continue to nominate our graduate students for research and teaching awards.

Action: Increase the number of students applying for external research grants.

Action: Increase the number of students who present the results of their research at professional meetings.

Action: For students completing a thesis, encourage a manuscript be submitted for peer-review before a student graduates.

Action: Continue to prepare students for employment; help seek appropriate professional opportunities after graduation.

Action: Continue to encourage students to apply to PhD programs as appropriate.

Action: Continue to maintain a strong online presence.

Priority 4: Explore the development of a graduate program in Geography (E.I. Goal 2; CAS Strategic Focus 1)

Action: Investigate the demand for a graduate program in Geography.

Action: Investigate the potential job market for graduates.

Action: Explore potential support for a graduate program in Geography (e.g., teaching assistantships, faculty lines) at the College and University levels.

Action: Develop a proposal for submission to the University and Illinois Board of Higher Education.

GOAL 4: Continue to build, grow, and support research infrastructure within the department

Priority 1: Maintain and expand GEOMAP's presence as a leader in applied geospatial analysis and mapping among public universities in the state of Illinois. (E.I. Goals 2, 3 and 4; CAS Strategic Focuses 2, 3, and 4)

Action: Serve as the intellectual home of GIScience on the ISU campus.

Action: Supplement all research and collaborative endeavors with grants and contract monies from commercial, federal, state, and other agencies. As appropriate, develop relationships and partnerships with federal, state, and local agencies to provide mutual benefits.

Action: Continue to develop a high-level research support group in GIScience, Remote Sensing, Cartography, and Global Position System (GPS) technologies for faculty, students, and staff in the Department of Geography, Geology, and the Environment.

Action: Continue to serve as a source of expertise for the university in the areas of GIScience, Remote Sensing, Cartography, and Global Positioning System (GPS) and to develop collaborative research ventures with other Departments and University units.

Action: Continue to collaborate with non-academic and administrative units in the University, as well as area governments, nonprofits, and businesses and collaborate on various initiatives related to geospatial technologies.

Action: Serve in leadership positions in state, county, and local GIS organizations.

Action: Promote the discipline of Geography and Geospatial Sciences on campus and in the community.

Action: Increase fundraising efforts.

Action: Provide advice and leadership to other University units on matters related to GIS implementation and curriculum development.

Action: Continue to lead and promote initiatives of the ISU GIS Council across campus.

Priority 2: Modify and expand research infrastructure to elevate the research capabilities and profile of the Department (E.I. Goals 2, and 3; CAS Strategic Focuses 1, 2, and 3)

Action: Develop lab space for a dedicated sediment core lab.

Action: Consolidate instruments used for environmental sample analyses into a single space to improve efficiency, facilitate management, and increase interactions among students and faculty. These instruments are currently distributed across campus and shared by faculty in geology, biology, and agriculture.

Action: Make efforts to acquire support for a research technician to assist with management and training and facilitate water sample analyses.

Action: Continue to apply for funds to help maintain equipment and infrastructure and to help support access to these instruments for non-funded research projects.

Action: To develop effective analytical price structures and cost-sharing approaches that allow researchers to allocate funds in their budgets towards analyses and allow other researchers to utilize our facility.

Action: Continue to foster collaborative relationships with other departments and institutions that enhance research capabilities of faculty members.

GOAL 5: Enhance Geography, Geology, and the Environment's role in advancing the ISU mission in the Educating Illinois Plan.

Priority 1: Maintain our commitment to the General Education program. (E.I. Goal 1; CAS Strategic Focus 1)

Action: Schedule a variety of General Education courses that meet student demand.

Action: Routinely offer Honors sections for General Education courses and encourage faculty members to supervise in-course honors projects.

Action: Develop new General Education courses that enhance and promote our undergraduate programs.

Priority 2: Expand our efforts in outreach, continuing education, and service learning. (E.I. Goals 2 and 3; CAS Strategic Focus 4)

Action: Encourage faculty to offer service-learning opportunities in their courses as appropriate.

Action: Continue to offer summer workshops for in-service teachers.

Action: Develop summer courses for in-service teachers.

Action: Expand our continuing education efforts with government agencies and industry.

Action: Increase the usage of our learning resource center.

Action: Continue to serve as the host department for the Illinois Geographic Alliance (IGA) and provide support as needed.

Action: Support faculty members to become engaged in local and regional boards/associations.

Priority 3: Expand our commitment to international efforts. (E.I. Goals 1 and 3; CAS Strategic Focuses 1, 3, and 4)

Action: Encourage faculty to participate and take leadership roles in various regional/global research groups and academic programs.

Action: Develop, or collaborate in existing, international field courses.

Action: Continue to support the Scientific Mobility Program.

Action: Increase our student participation in study abroad programs.

Priority 4: Expand our interaction with alumni. (E.I. Goals 3 and 4; CAS Strategic Focus 4).

Action: Work to implement a Departmental Development Plan.

Action: Set up alumni and advisory boards for each program.

Action: Publish our newsletters online.

Action: Invite alumni to back to campus to speak about their career pathways and experience with our students.