



Unit Plan, 2010-2014

Department of Geography and Planning

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TABLE OF CONTENTS

I.	PLANNING FORM 1. <u>Unit Mission Statement</u>	3
II.	PLANNING FORM 2. <u>Unit Vision Statement</u>	4
III.	PLANNING FORM 3. <u>Strategic Directions and Actions</u>	5
	A. <u>Strategic Planning Statement</u>	5
	B. <u>Strategic Directions and Strategic Actions</u>	7
	1. Maximize New Curriculum Opportunities.....	7
	2. Enhance Graduate Education	8
	3. Strengthen Academic Capabilities	10
	4. Enrich Intellectual Environment	12
	5. Diversify and Increase Student Funding	14
	6. Improve Teaching Facilities	16
	7. Increase Faculty Research Productivity and Grant Activity	18
	8. Increase Regional Outreach	20
IV.	TECHNOLOGY PLAN.....	22

I. PLANNING FORM 1. Unit Mission Statement

As one of the departments in the College of Arts and Sciences, the Department of Geography and Planning promotes excellence in the following four interconnected areas: (1) the scientific understanding of the spatial patterns and processes within the physical systems of the earth's surface and atmosphere; (2) the understanding of human systems in spatial context; (3) the role of planning in achieving a better and more sustainable quality of life for people within those systems; and, (4) the understanding and application of geospatial analysis and technology in geography and planning. The Department provides strong and diverse undergraduate and graduate curricula that aid its students in finding productive and meaningful places in society. In addition to providing instruction of the highest quality, the Department faculty are dedicated to scholarship and service. The Department divides its efforts among teaching, research, and service, although the proportional effort of individual faculty members varies according to their interests, strengths, and abilities in consultation with the chair.

II. PLANNING FORM 2. Unit Vision Statement

Because teaching and scholarship are central to the mission of Appalachian State University, the Department of Geography and Planning cultivates a learning environment wherein diverse populations of faculty and students interact at the highest possible level. The environment we strive to build is conducive to inquiry from a variety of perspectives. It is an environment in which students and faculty are encouraged in their efforts to understand and critically analyze their human and physical environments.

We seek to maintain an environment in which effective scholarship is encouraged and supported. The major purposes of research activities are to expand the frontiers of knowledge, support quality instruction, and/or to serve the needs of the people in the local to global continuum. Teaching and scholarship should be blended effectively; thus, it is important that individuals maintain an on-going research agenda to remain current in their chosen fields and contribute to the understanding of important problems in geography and planning. Faculty members are encouraged and supported to pursue external funding. Service to the discipline, region, and university can be an important component of a faculty member's professional activity.

Appalachian State University is an institution not only in northwestern North Carolina, but of northwestern North Carolina, with linkages to the global community. We seek to serve the people of our region through effective teaching, research, and outreach. We recognize the reciprocal spatial relationships at many scales that influence our region. As a community of scholars we value our home region and its people by engaging with them in our work, offering them our services, and by learning from them.

We value and encourage collaborative efforts with our peers in the Department, the university, and elsewhere. We strive to be ambassadors for sound, sustainable, and inclusive planning practices and human-environmental interactions.

The effective exchange of ideas and information can take place only in an atmosphere free of abuse or harassment and characterized by courtesy and respect. Treating students, staff, and other faculty in a courteous and respectful manner is an expected component of professionalism and vital to the establishment of an appropriate learning environment. All faculty members are expected to conduct themselves in a manner that is free from discriminatory practices and harassment.

III. PLANNING FORM 3. Strategic Directions and Actions.

A. Strategic Planning Statement

The Strategic Directions embodied in this Unit Plan came about through a departmental collaborative effort and consultation with the university's Hubbard Center, assessing the Department's previous Unit Plan and evaluating the Department's strengths, weaknesses, opportunities and threats. This effort was informed not only by changes within the Department, but also by changes within Appalachian State University, the University of North Carolina system, and shifts in the state's demography and economic base.

The Department of Geography and Planning has changed significantly since the last Unit Plan was drafted and implemented. We continue to experience growth in student enrollment in both the geography and planning curricula. This growth enabled the Department to become creative with existing resources, scheduling, and classroom facilities. In addition to an increase in enrollment, an expanded faculty allows the Department to take advantage of new ideas, and new visions for the Department's curriculum and research.

Appalachian State University's Strategic Plan calls for an intellectually engaged student body with active interdisciplinary learning environments and scholarly mentoring. One strategy the university has adopted is the General Education initiative which restructures the way the university offers core curriculum for all students. This presented the Department with an opportunity to reflect on its own course offerings and participate in the university's initiative in a meaningful way. In addition to the General Education effort, the university has stated goals to increase regional and statewide visibility and influence in the areas of the environment, energy policy and economic development. Due to the Department of Geography and Planning's inherent interdisciplinary, it is well situated to assist the university in its efforts.

The University of North Carolina has likewise issued a statement for a new direction called the University of North Carolina Tomorrow Commission Final Report. The university system has been charged with addressing seven categorical goals to

“...respond more directly and proactively to the 21st century challenges facing North Carolina both now and in the future through the efficient and effective fulfillment of its three-pronged mission of teaching, research and scholarship, and public service.”

As with Appalachian State University's new strategic direction, the Department of Geography and Planning is well situated to assist the UNC system in addressing its findings in the areas of Our Global Readiness, Our Communities and their Economic Transformation, Our Environment and Our University's Outreach and Engagement.

We strive to become an even more efficient and effective department, to become a more integral part of Appalachian State University's mission and to be involved in the success of UNC Tomorrow's strategy. We value the virtues of a liberal arts education, and our primary

mission is to prepare our students to succeed in their chosen careers and to become responsible and contributing citizens in society. The Department recognizes the changing socio-economic and environmental circumstances in the state of North Carolina and beyond. The population of North Carolina continues to grow among all dimensions of demography; we are a destination for retirees, young families and university students. Our urban areas are expanding and our rural areas are facing serious challenges. In addition to the increasing diversity of our population, our economic base continues to diversify statewide. This increase and shift of demography and economy in North Carolina presents a policy challenge, but it also presents an opportunity for geographers and planners. The goal of the Department is to recognize these changes, incorporate this knowledge into our research and curriculum, and produce students who can embrace these opportunities and challenges.

B. Strategic Directions and Strategic Actions

1. Strategic Direction: Maximize New Curriculum Opportunities

As Appalachian has begun the implementation of a “signature general education program” (General Education Task Force Final report) the Department of Geography and Planning will continue to maximize our contribution to this effort. We see opportunities to contribute to the General Education curriculum within the Science Inquiry, Local to Global, and Historical and Social Perspectives. In particular, we have collaborated with other departments to develop innovative themes related to our expertise and research in environmental science, global environmental change, sustainability, globalization and international issues. We will continue to contribute high quality courses to these interdisciplinary themes by revising existing courses and by developing new courses.

The new vertical curriculum model will demand a substantial redevelopment of several of our upper-division courses. The Department has met some of these requirements with the development of writing in the discipline (WID) courses and our capstone experiences.

Strategic Actions

1. Continue to collaborate with other departments to develop interdisciplinary themes for the General Education curriculum, initially focusing our attention on themes within the Science Inquiry, Local to Global, and Historical and Social Perspectives. Also, the Department of Geography and Planning will continue to develop and propose courses that contribute to these themes.
2. Secure funding for the development, maintenance and upgrade of laboratory facilities in order to fulfill the needs of courses within the Science Inquiry Perspective, and in alignment with faculty research.
3. Capitalize on the international expertise of departmental faculty to foster Global Readiness (UNC Tomorrow, section 4.1).
4. Continue to capitalize on faculty and curricular strengths to address community and regional needs in accordance with the ASU Strategic Plan.

2. Strategic Direction: Enhance Graduate Education

The graduate program continues to be a top priority for the faculty of the Department of Geography and Planning. A healthy graduate program enhances teaching and research. We have devoted considerable time and energy to revising our graduate program. We have developed a curriculum that allows more flexibility and a stronger role for advisors. Faculty strive to provide a high quality graduate education that prepares students with the knowledge and skills geographers and planners need to be successful in the 21st Century. To best meet the needs of our students and the State of North Carolina, our faculty requires flexibility to provide a wide range of courses at the graduate level. To enhance our graduate program we need to continue to attract high quality students in numbers that are large enough to sustain diverse course offerings. The Department of Geography and Planning is committed to making a meaningful effort to attract and admit traditionally underrepresented students.

The Department receives numerous applications from well-qualified students every year. For the 2008-2009 academic year, forty six applications were considered. Many of the best qualified out-of-state students enroll at other institutions because we are not able to offer competitive funding packages. Faculty recognize that providing funding for graduate students is a shared responsibility. In addition to assistantships and scholarships (offered in the form of out-of-state tuition waivers), external grants and departmental scholarships will continue to be important funding sources for our students. The Department is fortunate to be able to offer the Stephen Vacendak Graduate Fellowship which specifically targets the recruitment of high quality students.

The Department's graduate education has benefited from the development of an off-campus graduate cohort at the Graduate Center of UNC-Asheville. The Asheville Planning Concentration enhances the visibility and effectiveness of the Department and the University. In combination with the on-campus graduate classes, the two groups provide benefits greater than the sum of their parts. By enhancing our teaching delivery for the Asheville cohort through the use of distance learning technologies, we are also able to deliver that coursework to our on-campus students with little added imposition on departmental resources. We are committed to continuing discussion regarding the establishment of an accredited master's degree in City and Regional Planning.

Strategic Actions

1. Attract high quality applicants. This outcome will be enhanced through research publications, active participation in our professional organizations, and through our personal contacts and web page.
2. Enroll more of the highest-scoring students that apply to our program. This can be accomplished by providing larger stipends and scholarships, an increased number of out-of-state tuition waivers, and more externally funded grants.

3. Continue to maintain a professional web page, in alignment with the College of Arts and Sciences protocols.
4. Increase (non dual-listed) graduate student course offerings. For example, we should develop and regularly offer a graduate planning seminar course.
5. Commit to the success of our off-campus degree program(s), while ensuring consistency with on-campus programs.
6. Explore opportunities that distance learning technology may provide to expand course offerings and integrate on and off-campus graduate programs.
7. Renew departmental discussions regarding the establishment of a master's degree in City and Regional Planning.

3. Strategic Direction: Strengthen Academic Capabilities

Significant progress has been achieved within this strategic direction since the writing of the last strategic plan. For example, revisions have been made to the overall structure of the undergraduate and graduate curricula, and concentrations and certificate programs have been added. For example, the number of required graduate courses has been reduced to allow for more flexibility in the graduate program. As targeted in the last strategic plan a graduate concentration in planning and additional field courses have been developed. In addition, the off-campus concentration in planning at UNC Asheville has been created. A graduate concentration in GIScience has been established, and graduate (GIScience) and undergraduate (GIS) certificate programs are now being offered. To encourage highly motivated undergraduate geography and planning majors to enroll in our graduate program, we have established a 4+1 program wherein undergraduates can take undergraduate/graduate dual-listed courses in the Department for graduate credit to accelerate their graduate program. Tenure track faculty lines have been filled in physical geography, human geography, GIScience and planning. In addition, a temporary faculty position has been filled in planning. Goals from the previous strategic plan that have not been accomplished include the hiring of an endowed chair.

A strength of this Department has been the provision of a strong well-balanced education with the capability to provide significant depth in the different sub-fields of geography and planning. Three concerns that the Department must address are: offering additional courses according to student demand, responding to university strategic directions, and acting on departmental strategic initiatives.

The University is expected to increase enrollment, both as a function of policy and demographics. The Department of Geography and Planning fully expects to contribute to serving this expansion in the student body. For example, the GIScience and Community and Regional Planning courses offered by the Department are experiencing considerable increases in enrollment. The Department will continue to address this expansion through its curriculum and course offerings, and by hiring additional faculty.

The Department's specific objectives to achieve the goal of strengthening its academic capabilities include: hiring four additional faculty members (emphasizing diversity in faculty hires), enhancing linkages between courses, developing new courses (emphasizing faculty research interests), and the development of field methods courses (or the integration of field methods in current courses).

The Department has not fully taken advantage of the expertise of the faculty given the current curriculum and resource allocation. The Department's curriculum must be revised to tap this latent expertise in order to increase faculty satisfaction and provide an avenue for this expertise to be transmitted to students through new course offerings. Likewise, outdated courses must be dropped or revised to meet the evolving needs of the educational objectives of the university and demands of the job market.

Strategic Actions

1. Convert current non-tenure track faculty lines to tenure track positions as appropriate to departmental needs.
2. Hire additional faculty as appropriate to departmental needs to maintain the Department's standard of excellence.
 - a. Hire four additional tenure track faculty members, representing GIScience (remote sensing/GIS), community and regional planning, human geography, and human-environment.
 - b. Emphasize diversity in new faculty hires.
3. Enhance intradepartmental and interdepartmental linkages among courses. Possibilities for linkages include shared reading assignments, shared lectures (guest or otherwise), movies, exhibits, student presentations, and faculty awareness of complementary course content.
4. Capitalize on the primary research interests of faculty to guide the development of new course offerings, being mindful of ASU's Strategic Plan and UNC Tomorrow's key findings and goals.
 - a. Courses we may develop include: Geography of the American South, GIS Database Design and Development, Planning for Economic Development, Human-Environment Interactions, Collaboration and Facilitation for Environmental Disputes, and Principles in Dendrochronology.
 - b. Design cross-listed courses that may be taught by either geographers or planners.
5. Consider developing field methods courses within geography and planning.
6. Continue to review and revise the undergraduate curriculum as needed.
7. Convert our part-time administrative staff position to a full-time position to support administration of our academic program.

4. Strategic Direction: Enrich Intellectual Environment

The Department of Geography and Planning provides an open, inclusive environment for academic inquiry. Our curriculum, research, and speaker series all contribute to creating an atmosphere of engaged learning. Because of our diverse research and teaching interests, one ongoing challenge is that of fostering a more intellectually stimulating environment that promotes conversation and collaboration across specialties and sub-disciplines. As the Department looks to strengthen our students' intellectual and analytical skills, increase their awareness of the role they play in creating a sustainable future for this region and the globe, and prepare them for successful careers in geography and planning, it must also consider ways to engage all members of our Department (undergraduates, graduates and faculty) in the broader debates that are active in our disciplines.

We have built on our strength as a Department with high levels of student satisfaction and excellent faculty-student relationships by invigorating the departmental speaker series over the past few years. Presently, the Department hosts a speaker monthly, and seminars are attended by many faculty and students. This series has exposed us to new ideas and enabled us to create professional contacts with researchers in other departments and at other institutions. The series has also increased our visibility within the university and community at large.

We can further enhance the value of the speaker series by engaging our students more actively in planning the series, inviting and hosting speakers, and in exploring seminar content. We have active student geography and planning clubs, as well as an energetic collection of graduate students. These groups could become involved in the speaker series to help ensure that topics are pertinent to student interests. In other departments, graduate students have considerable responsibility for organizing and maintaining speaker series; a similar model may work here. Our students would benefit from increased interaction with visiting researchers in geography, planning, and related fields.

Informal reading groups could also bring students and faculty together for intellectual exchange. In a reading group, faculty and students with shared interests meet on an informal basis to discuss a jointly agreed upon text, or set of journal articles. This should be a multidisciplinary endeavor, focusing on discussion of important themes and debates in geography and planning. Our faculty and graduate students are engaged in a wide variety of intellectual endeavors. Our undergraduates are as promising as any on campus and they too should be encouraged to participate in these discussions.

The departmental intellectual environment would also be strengthened by increased visibility, broader advertisement of, and greater attendance at student internship and thesis presentations. In addition, we recognize the importance of communicating our activities and interests to a broad audience within and outside the Department through the departmental web page.

Continued professional development through active participation in professional organizations would also provide an avenue to strengthen the intellectual environment. Faculty and students should be encouraged and supported to participate in at least one professional meeting per year. Participation implies the presentation of scholarly work, organization of sessions, registration for workshops, or other activities.

Strategic Actions

1. Enhance the speaker series. Continue to schedule speakers at least once per month, emphasizing relevance to our diverse community in geography and planning, and student involvement.
2. Increase visibility and discussion of faculty and student research.
 - a. Create informal or formal opportunities for presentation and discussion of faculty research; increase attendance at student thesis and internship presentations.
 - b. Encourage faculty and student participation in the Celebration of Student Research and Creative Endeavors Day.
3. Encourage faculty to update and maintain their professional profiles on the departmental web page.
4. Establish reading groups. Organize at least one ongoing reading group per semester.
5. Encourage professional activity. Specifically, increase the number of students and faculty who publish and present papers at professional meetings, and are active and assume leadership roles in professional organizations.
6. Nominate deserving faculty and students for awards and recognition.

5. Strategic Direction: Diversify and Increase Student Funding

It is imperative that the Department of Geography and Planning seek diverse sources of funding for its programs, its faculty, and its students. At the same time, it is essential that the College and the University increase base funding support. Without reliably adequate financial resources, instruction will suffer, as will our ability to attract high quality graduate students.

The Department has established several graduate and undergraduate scholarships for our geography and planning students. These include The Robert E. Reiman Planning Scholarship, The Julian Yoder Scholarship in Geography, The Faye and Moses Crutchfield Geography Scholarship, The Neal Lineback Scholarship, The Garland P. Stout Annual Scholarship for Geography and the Stephen Vacendak Graduate Fellowship for Geography. Scholarship funds provide an excellent means of recruiting and rewarding top students. In addition, many of our majors have financial needs that cannot be met through university-wide resources. Donors to augment existing scholarships, or to fund additional scholarships, must be sought out and cultivated.

The Department greatly values its graduate program, and intends to sustain and continually improve this program into the future. The health of the graduate program depends upon our ability to attract and support students, and to maintain a total population of 30 graduate students on campus. Graduate assistantship (GA) stipends at Appalachian are inadequate. Students receiving \$8,000 per year for half-time work are barely able to pay living expenses, even with student loans and family support. The Department of Geography and Planning frequently loses the competition for top individuals because of more lucrative offers from other universities. Without out-of-state tuition waivers, it is almost impossible to attract graduate students who are not NC residents. It is imperative that we increase the standard stipend to at least \$12,000, and obtain more out-of-state tuition waivers. State funds, external grants, and private donations could be used to augment current GA stipends. Additional graduate fellowships are needed to attract top graduate students from our strong pool of applicants.

Strategic Actions

1. Expand current undergraduate scholarship endowments to increase annual pay-out.
2. Increase scholarship and fellowship funds for graduate students. The Stephen Vacendak Fellowship Fund in Geography has already been endowed to the point where at least two graduate students can be awarded fellowships each year. The endowment needs to be increased substantially in order to significantly increase the number of students receiving such support.
3. Increase the number of assistantships and amount of assistantship funding, and the number of out-of-state tuition waivers for graduate students.

4. Involve graduate students in funded faculty research.
5. Increase the number of faculty applications and the amount of awards of external and internal funding to support students.
6. Mentor students to apply for internal and external funding awards.

6. Strategic Direction: Improve Teaching Facilities

The Department of Geography and Planning places great importance on teaching and contributing to the educational mission of the university. In order to continue its tradition of excellence, the Department must continually improve classroom instruction and resources. The Department has been at the forefront of incorporating technology of various types in its curriculum and teaching methods. However, constantly evolving technology means that the Department itself must continue to evolve to maintain effective delivery of ideas, concepts and methods.

While the Department has improved its technological capabilities and infrastructure, these resources remain wanting. The number of courses that require hands-on computer instruction continues to grow, and the enrollment in these courses has increased considerably. This means that competition is keen for classroom time in our teaching lab, often resulting in inefficient rescheduling of lectures and projects. Additionally, there are often more students than available workstations and additional lab periods have to be scheduled, placing a burden on the faculty who teach computer-based courses with a lab component.

Classroom space is often lacking at critical times. The growing visibility of the Department to undergraduates and graduate students means that enrollment continues to grow. While this is a positive development, classroom space has not grown with enrollment. Over-crowded classrooms and lecture halls create an environment that is not conducive to learning. This creates a quandary for the department chair when scheduling classes – the option of consolidating sections to free up instructors for other courses is often not available, yet it is very necessary.

Quality instruction in Geography and Planning also occurs outside the classroom. In order to provide these instructional opportunities, the Department must purchase and maintain a substantial amount of field equipment and maintain a safe departmental van.

New initiatives for off-site instruction at UNC-Asheville have presented many opportunities. We recognize that the Department needs to work on a new paradigm of instruction that involves both technological and human resources. The Department has realized that new and innovative methods of communication are necessary to ensure off-campus students are appropriately integrated with their on-campus cohorts and instructors. This is both a procedural and technological issue and requires new methods of interaction and new ways of maintaining contact beyond the weekly class meetings.

Strategic Actions

1. Improve computing facilities in classrooms and in labs.
 - a. Increase the quantity of workstations in our instructional lab to twenty five.
 - b. Increase the quantity of workstations in our student lab to twenty five.
 - c. Continue to keep up to date with state-of-the-art computer technology in our instructional labs.
2. Develop a long-range technology plan to address new demands of teaching and research.
3. Encourage faculty to take advantage of faculty and professional development in order to be more aware of current teaching technologies and methods.
4. Seek non-computing resources to aid in the delivery of field-based and other courses.
5. Seek reliable access to larger lecture facilities in order to consolidate sections and therefore free faculty resources for other purposes.

7. Strategic Direction: Increase Faculty Research Productivity and Grant Activity

One of the best ways to improve recognition of the Department of Geography and Planning across the campus, state, region, nation, and world is to have a consistent record of publication in quality venues, and to be awarded externally and internally funded research grants. There is an increased emphasis on research at ASU, and we must continue to attract high quality undergraduate and graduate students into our program. Without the recognition that comes with publication and grantsmanship, and the additional resources (i.e., assistantships) that accompany most funded proposals, it is especially difficult to attract the best and brightest graduate students into our Department. Without a strong graduate program, the quality and diversity of faculty research endeavors would suffer. In addition to recognition, scholarly productivity is an important component of our roles as educators, and faculty members of the University of North Carolina System. The major purposes of our scholarly research are to expand the frontiers of knowledge, support quality instruction, and serve the needs of the people along the local to global continuum. In accordance with the report issued by the University of North Carolina Tomorrow Commission, particular emphasis should be placed on research focused on economic transformation and community development, and the state's energy and environmental challenges. It is important that individuals maintain an on-going research agenda to remain current in their chosen field, to contribute to the understanding of important problems in geography and planning, and to continue to attract the best and brightest students into our Department.

Time and money are the two primary barriers that faculty face when trying to maintain an active and productive research agenda. Specifically, release time from teaching is needed so that those hours can be devoted to research. Due to the increased emphasis on research at ASU, and in concurrence with meeting the teaching needs of the Department, we should be flexible in terms of faculty workload accounting. For example, we have and in the future would like to give faculty course release credit for directing graduate and honors theses, teaching large lecture courses, and teaching multiple lab sections. Financial support from the Department, College, University, and external sources is needed for travel, equipment, course buy-outs, and student help. As a Department, we need to be as creative and aggressive as possible in our search for funds to support basic research.

Faculty are best able to remain current in their sub-disciplines when they are engaged in an active program of scholarship. The University has increased its research support through competitive internal programs. Faculty have been awarded research grants through these programs, but we should increase departmental utilization of these resources. Additional University funding for research travel, and supplemental travel support for collaboration with colleagues at other institutions would improve faculty productivity. Most importantly, additional funds are needed to support travel to conferences, as most faculty pay for a significant proportion of professional travel expenses out of pocket.

Strategic Actions

1. Encourage faculty to strive for a level of productivity of two significant peer reviewed products every three years per faculty member, or the equivalent of this in applied research or book writing.
2. Increase the level and success of grant submissions from the Department.
 - a. Encourage faculty to attend grant writing workshops sponsored by the Office of Research and Sponsored Programs.
 - b. Encourage faculty to submit proposals and contracts for external and internal support for scholarly activity, teaching enhancement, development of workshops, equipment upgrades, etc.
 - c. Encourage faculty to apply for grants offered through the Office of Research and Sponsored Programs and the Hubbard Center. These grants can supply seed money for larger projects that may be worthy of external funding.
 - d. Encourage collaborative grant writing within the Department.
3. Obtain additional departmental funds for scholarly research and travel. Specifically, establish and work to endow an account based on indirect costs to help support scholarly research and travel for faculty and students.
4. Promote more collaborative research in the Department.
 - a. Continue to encourage faculty to combine their expertise on diverse subjects.
 - b. Encourage more collaborative work with students.
5. Emphasize undergraduate and graduate student research.
 - a. Promote opportunities for undergraduate research.
 - b. Encourage the use of the Office of Student Research to enhance our efforts with collaborative student research.
 - c. Encourage faculty and student participation in The Celebration of Student Research and Creative Endeavors.

8. Strategic Direction: Increase Regional Outreach

Appalachian State University and the Department of Geography and Planning are well-positioned to contribute to the university's mission to increase regional outreach (Priority 4 of the ASU Strategic Plan). Finding 4.7 of UNC Tomorrow (Our University's Outreach and Engagement) states "UNC should become more directly engaged with and connected to the people of North Carolina, its regions, and our state as a whole." The Department of Geography and Planning has in the past been a major contributor on behalf of the University towards accomplishing these goals, and states as its purpose the continuation of this mission.

The Department of Geography and Planning, through service activities, grantsmanship and workshops, has contributed to the enrichment of the region. Our faculty conducts research focusing on civic engagement, climate change, economic development, environmental analysis, water resources, housing, urban design and energy, and cultural identity. By continuing the focus on these and other initiatives, the Department contributes towards larger and more collaborative efforts of Appalachian State University such as the ASU Energy Center and the Research Institute for Environment, Energy, and Economics.

The facilities of the Department of Geography and Planning include undergraduate and graduate student oriented spatial analysis laboratories and sophisticated, yet accessible, spatial databases of local and state importance. The Department directed a tremendous amount of effort towards the creation of a Spatial Database Engine (SDE) to allow for a more flexible and user-friendly repository of spatial data for teaching and research efforts. These data have been made available to other student and faculty researchers outside the Department and have been the locus for interdisciplinary activities that benefit the region. We are committed to maintaining and enhancing these databases.

The Department is actively engaged in university initiatives such as the Research Institute for Environment, Energy, and Economics. Consistent with Priority 4 of ASU's Strategic Plan the Department has expanded its capability to serve students by establishing a Planning concentration within the master's degree in Geography offered on the campus of UNCA. In addition, by its nature, the Department's research and service activities will strengthen the UNC Tomorrow initiatives to:

1. Apply, translate, and communicate research and scholarship to broader audiences;
2. Develop a strategic plan for scholarly public service on each campus that is detailed, specific in definition and scope;
3. Create a mechanism for applying research and scholarship to addressing significant regional and statewide issues;
4. Communicate its resources and expertise to wider audiences.

[University of North Carolina Tomorrow Commission]

Strategic Actions

1. Contribute to the development and research efforts of the Research Institute for Environment, Energy, and Economics and other interdisciplinary efforts on campus.
2. Continue to conduct research relevant to understanding environmental change and promoting sustainability.
3. Enhance regional connections for the Geography and Planning speaker series.
 - a. Inviting speakers.
 - b. Seeking opportunities to speak elsewhere in region.
4. Promote GIScience and GIS.
 - a. Continue to offer GIScience workshops through the Spatial Outreach Laboratory as needed, focusing on selected topics.
 - b. Continue and increase collaboration and outreach efforts with local and regional organizations and governmental agencies in regards to GIScience related research and projects.
5. Promote Planning
 - a. Continue to serve the Planning community through workshops that satisfy professional requirements for continuing education.
 - b. Continue and increase collaboration and engagement with the Planning community, such as volunteering for service on boards and working groups.
 - c. Contribute to and support interdisciplinary efforts to increase local and regional sustainability.
6. Continue our educational outreach through the Graduate Center at UNC-Asheville.
7. Promote Geographic Education
 - a. Continue to provide National Geographic Alliance workshops for K-12 teacher education.
 - b. Continue to encourage faculty outreach in primary and secondary education.

IV. Technology Plan

Geospatial technology is central to Geography and Planning's teaching and research endeavors. Many of our graduates take jobs in the geospatial industry (one of the three areas of technology, along with nanotechnology and biotechnology, recently targeted for growth by the Department of Labor). We require state-of-the-art facilities to support our curriculum and research in GIScience (e.g., geographic information systems, digital image processing, and computer cartography), quantitative methods, visualization, and environmental and economic modeling.

We currently maintain three separate teaching/student/system administration computer labs on the third floor, and two additional research spaces to support funded research. Given our current teaching and research needs, the computer facilities in these labs are not sufficient. For example, for several of our courses some students have had to bring their own laptops to the computer-based class exercises. In the student lab students often have to wait in line for the next available computer. These labs must be continually improved and kept up to date through regular replacement of existing computers and peripherals. In addition, software and database upgrades are necessary to stay abreast of developments in the field. Our program also requires additional resources to staff and maintain access to these labs by students during evenings and weekends.

Classroom instructional technology throughout the Department needs constant upgrading and expansion. The level of instructional technology in the classrooms must match the standards set in our teaching computer labs.

We need to develop a high-end computational research/visualization lab and professional conferencing environment. We work with increasingly large datasets, and computationally demanding algorithms and models. For example, due to the shortcomings in the computational capabilities in our teaching labs, graduate students have had to limit the scope and complexity of their class projects in the advanced GIScience courses, and have had to use a series of computers in order to accomplish their thesis research. A computational research lab including high-end workstations and visualization equipment will support the diverse research needs of our students and faculty. These facilities will enable powerful collaboration opportunities across disciplines within the College of Arts and Sciences and the university, and among institutions such as the Research Institute for Environment, Energy, and Economics. Submission of external grants by faculty will be enhanced by access to these facilities, and we will be better able to serve the region.

Fieldwork and environmental monitoring equipment strengthens our teaching, research, and outreach efforts. This equipment needs to be continually kept up-to-date and maintained. Further, the purchase of additional equipment will be necessary as course enrollment continues to grow, and research needs expand.