Dianne Horgan  
Associate Dean, Graduate College  
Administration 302  
July 7, 2004  
Dear Sir,

Attached is a proposal from the School of Natural Resources and the Department of Geography and Regional Development to establish a cross-college graduate certification program in Geographic Information Science (GIS). The impetus for establishing this program was provided by the Graduate College, which is encouraging academic units to find creative ways to enroll more graduate students in their programs. However, such a certification program has long been discussed by members of the above-mentioned academic units as a way of providing a service to a variety of professionals, students, and post-baccalaureates for whom such training would be beneficial. This is a new direction for GIS education at the University of Arizona and reflects the significance of GIS technology, the growing importance of certification in this field, and an opportunity for cross-college cooperation.

The power of Geographic Information Science is its widespread application. The tools and techniques of GIS can literally be applied to any discipline or endeavor, from health science, business, local government, land use-planning, environmental assessment, and so on. It is how emergency services keep track of vehicles and analyze the best routes to take; it is how counties and states manage their resources, keep track of the people they serve, and collect taxes; at the University of Arizona, it is used for facilities management and for research; researchers use it for both data management and analysis in both the natural and social sciences. Essentially, any effort that requires geospatially-referenced data can now employ GIS. Where once we drew maps, GIS increases efficiency with which spatial data is collected, stored, mapped, analyzed, and visualized. It has been nothing short of revolutionary.

The implementation of a certificate program at the University of Arizona fits well with the high demand for GIS professionals and with the changing nature of GIS education. This program is aimed at two populations: non-traditional students who want to upgrade their job skills, and traditional students looking to gain an advantage in the job market. It is used to be that a single GIS course and a few references would be enough to sell yourself as a GIS professional. Today there is a higher level of GIS sophistication in both the public and private sectors, and employers require more proof of GIS understanding and experience. A certification program is a way graduates can demonstrate competency. Thus there is a market for this sort of program with a concomitant demand. In addition, having a certification programe would increase the profile of these academic units among professionals from various walks of life in southern Arizona, as well position our own students to pursue more successful careers.

GIS Certification Programs already exist at Arizona State University and Northern Arizona University. Participants are referred to these programs by the Arizona Geographic Information Council (AGIC), an entity established by the Governor’s Office. Currently there are no options in southern Arizona outside of commercial enterprises, such as the Southern Arizona Institute of Advanced Technology here in Tucson. The University of Arizona has better GIS
resources than any of these other schools, and a long history of providing quality GIS education. The University of Arizona in general, and the School of Natural Resources and the Department of Geography and Regional Development in particular, are logical choices for a GIS Certification program. The School is home to an ESRI (Environmental Systems Research Institute) authorized learning center (a computing facility). ESRI develops the premier GIS-related software in the country. Craig Wissler, who will serve on the Executive Committee of this Program, is the University’s only member of the faculty authorized by ESRI to provide software training. Furthermore, the School has a long tradition of providing software-training workshops (in fact, the first GIS course at U-A was taught in SNR). The Department of Geography and Regional Development offers expertise in remote sensing course work, and with two recent hires, greatly expand the breadth of training in Geographic Information Science applications (notably public participation GIS, urban GIS, and GIS visualization). The new students, both traditional and non-traditional, that it will attract and the advantages it will give them in the job market make this a winning proposition for all concerned.

Finally, the certification program provides further opportunity for cooperation between the colleges and faculty providing GIS education. In 2004/2005, GIS courses taught at the University of Arizona will be evenly split between BNR in the College of Agriculture, and GRD in the College of Social and Behavioral Sciences. Although these courses have home departments, the overall curriculum has been built cooperatively and there is a high level of collaboration in the instruction as well. The Certificate program would also be a joint effort, allowing additional cross-college cooperation, where both departments share expertise and resources.

A GIS certification program is both novel and beneficial to the University of Arizona. Given our expertise, the demand for training, and the potential for increasing enrollment and revenue within the school, we respectfully request your approval to implement this graduate certification program in Geographic Information Science.

Sincerely,

C.P. Patrick Reed
Director
School of Natural Resources

J.P. Jones, III
Department Head
Geography and Regional Development

Eugene G. Sander
Dean
College of Agriculture and Life Sciences

Edward Donnlein
Dean
College of Social and Behavioral Sciences