

**New Program Proposal
Ph.D. in Environmental Design and Planning
Clemson University**

Summary

Clemson University requests approval to offer a program leading to the Doctor of Philosophy degree in Environmental Design and Planning, to be implemented in Fall 2005.

The proposal was approved by the Clemson University Board of Trustees on October 25, 2002, and submitted for Commission review on November 15, 2004. The proposal was reviewed without substantive comment and voted upon favorably by the Advisory Committee on Academic Programs at its meeting on January 20, 2005.

The purpose of the program is to prepare a new generation of academics and professionals to deal with the diverse and complex issues related to human settlement patterns and the built environment. The program reflects recommendations emerging from several national reports and post-secondary education advocacy organizations, emphasizing the need for interdisciplinary graduate training that fosters the connection between academe and the workforce. Thus, a primary goal of the program is to provide a holistic education that draws in an interdisciplinary fashion from the fields of architecture, landscape architecture, city and regional planning, and construction. Due to the program's interdisciplinary approach, graduates can expect to secure employment in academia, private industry, and state and local governments. Favorable supply-and-demand conditions in the construction industry also present employment opportunities in urban design, and the program's emphasis on research skills will prepare graduates as research analysts assessing sustainable building practices, urban development patterns, building technologies, and landscape ecology.

Nationally, comparable programs may be found at Arizona State University, the University of Colorado, the University of Maryland, and Virginia Polytechnic Institute and State University. Within South Carolina, Clemson University is the only institution offering programs in the related fields of architecture, landscape architecture, city and regional planning, and construction. The College of Charleston offers two undergraduate degree programs in urban studies and historic preservation.

Each of the four fields associated with the proposed program are currently accredited by their respective accrediting boards. The boards include the National Architectural Accrediting Board, the Landscape Architecture Accrediting Board, the Planning Accrediting Board, and the American Council on Construction Education. The proposed program, by virtue of its interdisciplinary design, will not be subject to accreditation by a professional association, but it will be assessed as part of the Southern Association of Colleges of Schools (SACS) review process.

In April, 2004, the proposed program was reviewed by the Dean of the School of Architecture at a prominent AAU institution. The external review reached two noteworthy conclusions: the proposed program is well-conceived and complementary to existing programs at Clemson, and; the program has the potential to make a significant contribution to South Carolina. Overall, the external reviewer offered an "enthusiastic endorsement" of the program.

The proposal notes that recruitment and enrollment will be small and selective, projecting three students in year 2005-06, adding an additional five students in the third year, and continuing with an average of five new enrollments in each subsequent year. At its full operational capacity, enrollment is projected at 13 FTE students per year. If enrollment projections are met, the program will meet the Commission's productivity standards.

The proposed program will consist of 71 semester hours, including: six semester hours in theory/history; six semester hours in methods courses; 11-14 semester hours in core courses; 15 semester hours in concentration courses (reflecting a student's career objectives); six to nine semester hours in electives; and 24 semester hours for preparation and completion of the dissertation. Seven new courses associated with the program include: EDP 801 Advanced Theory/History; EDP 805-808 Critical Readings in the Field of Architecture, City and Regional Planning, Landscape Architecture, and Construction; EDP 809 Environmental Design and Planning Workshop; EDP 810 Contemporary Issues in Environmental Design and Planning; EDP 812 Environmental Design and Planning Seminar; EDP 815 Research Design; and EDP 820 Instructional Delivery System.

Faculty for the program will be drawn from the Departments of Architecture, Planning and Landscape Architecture, and Construction Science and Management. To date, twelve existing faculty members have been identified as contributors to the delivery of the program. All participating faculty will hold part-time appointments in the program while maintaining their primary appointments in their home department. The proposal notes the addition of one full-time faculty member, with one-quarter FTE dedicated to the program, each

year. The proposal also notes the addition of one program administrator and one support staff member during the first year, with one-quarter of each person's time dedicated to the program.

The proposed program will also rely upon inter-institutional relationships with the College of Charleston, the Medical University of South Carolina, and the University of South Carolina. Shared developmental themes between these institutions, such as sustainable design, planning, and building practice, offer opportunities for students to engage directly in environmental design issues. Other topic areas, such as historic preservation at the College of Charleston and environmental studies at the Medical University of South Carolina, offer the opportunity for cross-pollination of ideas and resources that support the interdisciplinary approach to environmental design and planning.

The proposal states a requirement for 1780 square feet of office, classroom, and studio space in year one. These requirements are expected to double by year three, and will be accommodated by the campus Master Plan, which will provide space by the movement of civil engineering to a new building.

New computers and related peripheral devices for new faculty and shared office environments will be needed. Estimated costs for this technology are \$6,500 in year one, and \$5,000 in each of years four through five, totaling \$26,500 by the end of year five.

The proposal also anticipates a need to expand library holdings, due to topic-specific shortcomings relative to peer institutions offering similar programs. These areas include general architecture and city planning, and it is estimated that between 60 and 150 new titles each year would close the gap. The budget reflects an annual estimate of \$12,000 over five years for new library resources, totaling \$60,000 by the end of year five.

New costs for the program are estimated to begin at \$200,750 in the first year, increasing to \$412,805 in the second year, increasing to \$512,978 in the third year, increasing to \$603,583 in the fourth year, and increasing to \$609,580 in the fifth year. Categories of costs over the first five years of the program's implementation include faculty salaries (\$908,772); graduate assistants (\$585,000); fringe benefits (\$304,921); visiting scholars (\$160,000); clerical and support personnel (\$53,091); library resources (\$60,000); visiting scholars (\$38,000); facilities (\$27,500); and equipment (\$26,500). Total estimated new costs for the program during the first five years will be \$2,339,695.

Shown below are the estimated Mission Resource Requirement (MRR) costs to the state and new costs not funded by the MRR associated with

implementation of the proposed program for its first five years. Also shown are the estimated revenues projected under the MRR and the Resource Allocation Plan as well as student tuition.

Year	Estimated MRR Cost for Proposed Program	Extraordinary (Non-MRR) Costs for Proposed Program	Total Costs	State Appropriation	Tuition	Total Revenue
2004-05	\$161,632	\$0	\$161,632	\$0	\$37,688	\$37,688
2005-06	\$370,407	\$0	\$370,407	\$44,069	\$86,974	\$131,043
2006-07	\$637,548	\$0	\$637,548	\$101,060	\$149,306	\$250,366
2007-08	\$743,058	\$0	\$743,058	\$173,625	\$173,949	\$347,574
2008-09	\$796,936	\$0	\$796,936	\$202,121	\$186,270	\$388,391

These data demonstrate that if the institution meets the projected student enrollments and contains costs as they are shown in the proposal, the program will not be able to cover costs during each of its first five years.

In summary, Clemson University will offer a program leading to the Doctor of Philosophy degree in Environmental Design and Planning. The program takes an interdisciplinary approach to preparing academics and professionals to deal with diverse and complex issues related to human settlement patterns and the built environment. Program graduates can anticipate employment opportunities as research analysts, academicians, and urban planning specialists in private industry, and state and local governments.

Recommendation

The Committee on Academic Affairs and Licensing recommends that the Commission approve the program at Clemson University leading to the Doctor of Philosophy degree with a major in Environmental Design and Planning, to be implemented in Fall 2005, provided that no "unique cost" or other special state funding be required or requested.