

**New Program Proposal
Bachelor of Science (B.S.)
Professional Land Surveying
South Carolina State University**

Summary

South Carolina State University requests approval to offer a program leading to the Bachelor of Science degree in Professional Land Surveying to be implemented in Fall 2011. The program will be offered on the main campus. This program does not qualify for the Supplemental Palmetto Fellows Scholarship and LIFE Scholarship Awards.

The Program Planning Summary was submitted to the Commission on April 30, 2008, and reviewed and voted upon favorably without substantive comment by the Advisory Committee on Academic Programs (ACAP) on July 17, 2008. The South Carolina State University Board of Trustees approved a revised proposal on February 11, 2011. The full proposal was received by the Commission on February 4, 2011.

According to the proposal, the purpose of the proposed program is to provide an undergraduate education that prepares students for careers in land surveying. The proposal further states that this program will assist in meeting an increasing demand for technically skilled people in the field of land surveying. Also according to the proposal, the South Carolina State Board of Registration for Professional Engineers and Land Surveyors has passed new educational requirements that require the completion of a Bachelor's degree program in professional land surveying in order to meet new educational requirements to register as a professional land surveyor. Research by CHE staff confirms that as of July 2010, individuals seeking licensure in Professional Photogrammetric Surveying in South Carolina must show "graduation from a school or college of four or more years with a board-approved degree, an ABET commission accredited curriculum in a related field, or a substantially equivalent program, including completed discipline-specific courses of not less than twelve semester hours or the equivalent in quarter hours satisfactory to the board in each of the disciplines described in Section 40-22-20(24) for which the applicant is requesting licensure."

According to the proposal, data collected from *Indeed*, an on-line job search engine, and the Licensing Board indicate there are only 833 professional land surveyors in the state. CHE staff researched the *Indeed* website and found that there has been a steady decline of jobs available for professional land surveyors since July 2007. Additional research with the South Carolina Department of Labor, Licensing, and Regulation reveal there are currently 911 licensed land surveyors in South Carolina. There is no supply and demand data available in the proposal.

Presently, no South Carolina public or independent institution of higher education offers a Bachelor's degree in professional land surveying. A similar degree in Surveying and Mapping Science is offered at East Tennessee State University through the Academic Common Market.

The proposal anticipates there will be ten new students (10.8 FTE) in the program's first year, increasing to 15 students (16.2 FTE) in the second year, and further increasing to 45 students (47.4 FTE) by the fifth year of the program. If enrollment and program completion projections are met, the proposed program will meet the Commission's productivity standards.

Admission to the proposed program is consistent with other programs in the institution's College of Science, Mathematics, Engineering and Technology. The curriculum for the proposed program in Professional Land Surveying will consist of a total of 131 credit hours. Eight new courses will be added to the curriculum (GPS & Control Surveying; Elements of GIS; Hydrology & Drainage; Construction Surveying; Boundary Law; Land Design and Development; Photogrammetry; and Remote Sensing).

Faculty for the proposed program will be drawn from existing faculty currently teaching in Civil Engineering. Currently, four faculty members (3.25 FTE) are on staff. One new full-time faculty member will be hired in the first year of the program's operation, such that in the first year there will be five faculty members (4.5 FTE) in the first five years of the proposed program.

The proposal further states that no new space or facilities are needed for the proposed program. The proposal states that existing classroom and laboratory space will be adequate and the Harold Crawford Engineering Building has administrative space available. The proposal notes that the Department of Civil and Mechanical Engineering Technology and Nuclear Engineering has adequate equipment for the initial stages of the program, but GPS and GIS equipment, associated software, and Photogrammetry components will need to be purchased at an estimated cost of \$100,000 in the first year of the proposed program and \$5,000 per year thereafter.

According to the proposal, the Miller F. Whittaker Library contains adequate resources for the initial stages of the proposed program. Additional volumes will need to be purchased to increase the collection in Professional Land Surveying by approximately 150 volumes per year at an estimated cost of \$16,050 per year the first five years of the proposed program, for a total of \$80,250. Students will also have access to additional library sources through the Partnership Among South Carolina Academic Libraries (PASCAL) and other digital sources.

If the program proposal is approved, SCSU indicates that it will seek ABET (formerly the Accreditation Board for Engineering and Technology) accreditation for the Bachelor of Science in Professional Land Surveying after five years. Current programs in Civil Engineering Technology, Mechanical Engineering Technology, and Nuclear Engineering in the Department of Civil and Mechanical Engineering Technology and Nuclear Engineering are accredited by ABET. Graduates of the proposed program will be required to complete a National Council of Examiners for Engineering and Surveying (NCEES) exam and apply for licensure from the South Carolina State's Labor, Licensing and Regulation (LLR)/South Carolina Board of Engineers and Surveyors, for licensing.

The proposal states that admissions and transfer criteria for general education courses will be the same as for all other SCSU undergraduate programs. SCSU has a Community Higher Education Cross Registration Program Agreement with Claflin University and Orangeburg-Calhoun Technical College (OC-Tech), which allows students to take one course each semester at one of the three institutions. In addition, the new "Gateway Program" is an articulation agreement between SCSU and OC-Tech, which allows SCSU officials to provide academic advisement to OC-Tech students who wish to transfer to SCSU to complete their undergraduate degree.

New costs for the proposed program are estimated to begin at \$223,388 the first year and include administration (\$24,838); faculty salaries (\$70,000); supplies and materials (\$5,000); library resources (\$16,050); and equipment/software (\$100,000). Estimated new

costs decrease to \$129,388 the second year, increase to \$130,388 the third year, \$131,388 the fourth year, and \$132,388 the fifth year. The total estimated new costs for the program for its first five years are \$746,940 and include administration (\$124,190); faculty salaries (\$350,000); supplies and materials (\$35,000); library resources (\$80,250); and equipment/software (\$120,000).

Shown below are the estimated new costs and sources of funding for the program.

ESTIMATED NEW COSTS BY YEAR						
CATEGORY	1st (2011-12)	2nd (2012-13)	3rd (2013-14)	4th (2014-15)	5th (2015-16)	TOTALS
Program Administration	24,838	24,838	24,838	24,838	24,838	124,190
Faculty Salaries	70,000	70,000	70,000	70,000	70,000	350,00
Graduate Assistants	0	0	0	0	0	0
Clerical/Support Personnel	7,500	7,500	7,500	7,500	7,500	37,500
Supplies and Materials	5,000	6,000	7,000	8,000	9,000	35,000
Library Resources	16,050	16,050	16,050	16,050	16,050	80,250
Equipment/Software	100,000	5,000	5,000	5,000	5,000	120,000
Facilities	0	0	0	0	0	0
Other (Identify)	0	0	0	0	0	0
TOTALS	223,388	129,388	130,388	131,388	132,388	746,940
SOURCE OF FINANCING BY YEAR						
Tuition Funding	109,250	167,920	268,740	369,560	474,425	1,398,895
Program-Specific Fees	0	0	0	0	0	0
State Funding	0	0	0	0	0	0
Reallocation of Existing Funds	0	0	0	0	0	0
Federal Funding (Title III)	100,000	50,000	50,000	50,000	50,000	300,000
Other Funding	0	0	0	0	0	0
TOTALS	209,250	217,920	318,740	419,560	524,425	1,689,895

The data shown in the table demonstrate that if the institution meets the projected student enrollments and contains costs as they are shown in the proposal, the program will be able to cover costs beginning in the first year and thereafter.

In summary, South Carolina State University is proposing a new program leading to the Bachelor of Science degree in Professional Land Surveying. The proposed program will draw its initial students from students entering the college as undeclared majors. The proposed program will meet the need for professional land surveyors with a Bachelor's degree as required by the Department of Labor, Licensing and Regulation Board of Registration for Professional Engineers and Surveyors.

Recommendation

The Committee on Academic Affairs and Licensing commends favorably to the Commission the program leading to the Bachelor of Science degree in Professional Land Surveying at South Carolina State University, to be implemented in Fall 2011, provided that no "unique cost" or other special state funding be required or requested.