

CHE
Agenda Items 4.02 A.1, 2, and 3
3/10/04

March 10, 2004

MEMORANDUM

To: Mr. Dalton B. Floyd, Jr., Chairman, and Members, Commission on Higher Education

From: Dr. Vermelle J. Johnson, Chairman, and Members, Committee on Academic Affairs and Licensing

Analyses of Three New Program Proposals

Please find attached the staff summaries and analyses for three new program proposals, Agenda Items 3.02 A.1, 2, and 3.

The Committee on Academic Affairs and Licensing approved these three items at its meeting on February 19, 2004 and has made its recommendations to the Commission.

As always, please do not hesitate to call me or Dr. Gail Morrison should you have any questions or concerns about our analyses or recommendations.

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New Program Proposal
Associate in Health Sciences, Major in Emergency Medical Technology
Horry-Georgetown Technical College
Grand Strand Campus

Summary

Horry-Georgetown Technical College requests approval to offer a program leading to the Associate in Health Sciences degree with a major in Emergency Medical Technology to be implemented in Fall 2004 at the Grand Strand Campus.

The proposal was submitted for Commission review on November 13, 2003. The Board of the State Technical College System approved the proposal on November 18, 2003. The proposal was reviewed without substantive comment and voted upon favorably by the Advisory Committee on Academic Programs at its meeting on January 21, 2004.

The purpose of the program is to prepare graduates either for entry-level into the EMT (Emergency Medical Technician) field or to advance the careers of those already in the field who have only received non-credit training and/or non-degree educational preparation thus far. The need for the program is based on demand by employers (both public and private) and on the increased level of education and training required for entering or career progression in the field. The fact that DHEC has recently adopted new US Department of Transportation (USDOT) national standards for EMT has meant that a person in the field must take advanced training or an associate degree program. The fact that the advanced training option does not allow for financial aid will make the associate degree option much more appealing to many students. Based on a needs analysis survey conducted by the institution in Spring 2003, there were 32 full-time (new and replacement) positions and 14 part-time (new and replacement) positions in the EMT field in the service area for 2003. In the first three years of the program's operation (i.e., 2004-2005 through 2006-2007 academic years), the institution estimates there will be an average of 26 (new and replacement) full-time and 17 (new and replacement) part-time positions open in the service area in the EMT field.

The curriculum consists of 69 credit hours. Of these, 23 credits are in general education, three are in an elective, and 43 are in the major field itself. The curriculum has been designed to meet the USDOT standards recently adopted by the South Carolina DHEC. The proposed curriculum is similar in content to that offered by the other two

technical colleges which have been approved to offer a program in this field. These institutions are Greenville Technical College and Florence-Darlington Technical College, each of which has a different geographical clientele from the proposed program at Horry-Georgetown. In addition, a program planning summary has been recently received by the Commission for another program in EMT at Technical College of the Lowcountry, which has another local student clientele at some distance from the proposed program at Horry-Georgetown. Thus, although these programs represent duplications of the same program, the programs themselves are not “unnecessarily” duplicative. A total of 13 new courses will be required for the proposed program.

The proposal from Horry-Georgetown Technical College indicates that one new full-time faculty member and one new part-time faculty member will be hired in the first year of the program. The full-time faculty member will be master’s-prepared in a health science-related field with at least an associate degree in the field of EMT. The part-time faculty member will preferably be master’s-prepared, but at least bachelor’s-prepared, with at least an associate degree in the field of EMT.

Enrollment in the proposed program is estimated to begin at 24 headcount (24 FTE) in FY 2004-05 and increase to 40 headcount (37.9 FTE) by FY 2005 and thereafter. Estimates of enrollment in the first year are based on the number of students anticipated as a result of local demand and student interest; in the second year and thereafter, the estimated enrollments are based upon local demand, student interest, and anticipated attrition of first-year students at the rate of approximately 30%. If enrollment projections are met, the program will meet the current CHE program productivity standards for enrollment.

The proposed program indicates that the program is subject to accreditation. The institution will seek initial accreditation from the Commission on Accreditation of Allied Health Education Programs (CAAHEP) and the Committee on Accreditation of Educational Programs for the Emergency Medical Services Professions (CoAEMSP). The institution will also seek to have the program become an official training site for EMT under the SC DHEC and USDOT standards now in place.

There are no physical plant requirements for the proposed program. Although the College has sufficient equipment for a basic EMT program, additional equipment needs are relatively extensive and represent significant start-up costs in the first year of implementation of the program. Similarly, the library will require substantially increased volumes. There is an institutional commitment to meet these and all other costs of the program. New costs for the program are estimated to begin at \$150,650 in year one and include faculty salaries/fringe benefits, equipment, supplies/materials, and library resources. Estimated costs have been estimated to be \$103,022 in the second year and

\$107,613 in the third year. Total new costs for the first three years of the program by category are estimated at \$361,285.

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 three 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	\$564,193	\$0	\$564,193	\$0	\$81,119	\$81,119
2005-06	821,061	0	821,061	166,076	117,902	283,978
2006-07	821,061	0	821,061	241,622	117,902	359,524

These data demonstrate that if Horry-Georgetown Technical College can meet the projected student enrollments and contain costs as they are shown in the proposal, the program will not be able to cover new costs with revenues it generates by the third year of its implementation. Nevertheless, the institution affirms that it has the resources to operate the program effectively. Funding sources through the Horry County EMS and Pee Dee Regional EMS will, for example, provide funding for equipment or equipment itself.

In summary, Horry-Georgetown Technical College proposes to offer a program leading to the Associate in Health Sciences degree in Emergency Medical Technology that will certify students in the service area in Emergency Medical Technology under the newly-accepted national USDOT standards adopted by DHEC. As measured by employer demand and student interest, the program is needed in the area. No nearby institution will have the same program.

Recommendation

The Committee on Academic Affairs and Licensing recommends that the Commission approve Horry-Georgetown Technical College's proposed program leading to the Associate in Health Sciences degree in Emergency Medical Technology for implementation in Fall 2004 at the Grand Strand Campus, provided that no "unique cost" or other special State funding is requested or required.

**New Program Proposal
Center for Community Growth and Change
Clemson University**

Summary

Clemson University requests Commission approval of an existing research center entitled the Center for Community Growth and Change (CCGC) which was established in 2001. Under current CHE guidelines, centers, bureaus, or institutes do not require CHE approval unless the institution intends to seek special state funding.

The purpose of the center is to “encourage efficient and equitable management of growth and change in the cultural, natural, and built environment.” The Center works with policy-makers and communities to promote policies and best practices toward achieving quality land and cultural-based community development in concert with preservation of community sense-of-place, environmental quality, community livability, and promotion of a strong economy. Furthermore, the Center emphasizes the historic and cultural heritage of communities as a foundation for attaining a high quality of life and provides a forum for positive exchange of ideas and information about quality communities in a growth environment. The Center emphasizes that the need for its activities and expertise results from rapid population growth, the aging of local infrastructure, increasing commuter distances and the stresses put on the state’s natural resources and amenities by these factors. The data presented by the Center to support the need statement convincingly argues that the state is already beginning to suffer from growth and associated sprawl in its metropolitan areas.

The Center serves as an umbrella organization for multiple research, educational, and service efforts within the College of Architecture, Arts, and Humanities. In addition, it will collaborate with other institutional entities such as the Strom Thurmond Institute, the Institute for Family and Neighborhood Life, South Carolina Water Resource Center and other PSA initiatives such as the Sand Hills Research and Education Center. The ultimate goal is to provide applied research, education, and technical assistance to government, the private sector development community, and the general citizenry of the State of South Carolina and the Southeast. In meeting the latter goal it will work with other Universities in the region, including the University of South Carolina, University of Georgia, Georgia Institute of Technology, and the University of North Carolina.

There are no comparable programs within the state, and few within the region. Of the regional programs, i.e., the University of North Carolina Charlotte's Urban Institute, University of North Carolina Chapel Hill's Center for Urban and Regional Studies, and the Georgia Institute of Technology's Center for Quality Growth and Regional Development, none replicates the scope of the Center. On the national level there are 22 centers and institutes that deal with related issues, although most are more narrowly focused than the Center.

The Center does not offer courses or degree programs. No enrollment estimates are therefore required for the proposed Center. Students conducting research within the Center are enrolled in a degree-granting academic program within the College of Architecture, Arts and Humanities. All involved departments take a role in student recruitment and are responsible for the administration of their programs and degree requirements. Research funds generated by the Center faculty will provide both thesis and non-thesis support (i.e., stipends and hourly monies) for students, including undergraduates.

The Center will not be required to seek any accreditation, approval, licensure, or certification.

The Center's Director is a faculty member who reports to the Associate Dean for Research and Outreach in the College of Architecture, Arts, and Humanities. A Research Associate will serve as the Associate Director. In 2004-2005 the Center will have .5 FTE administrators, 2.5 FTE faculty, and 2.5 FTE staff. By 2008-09, it is estimated that these levels will increase to 1 FTE administrator, 5 FTE faculty, and 4.5 FTE staff. The projected headcounts in 2008-009 are 2 administrators, 20 faculty, and 5 staff. A corrected copy of the staffing table is attached.

Funding of projects within the Center is through grants or contracts. The Estimated new costs to the University for the Center start at \$115,000 in the first year and increase to \$1,210,000 by year 5. The sources of funds are Reallocation of Existing Funds (\$37,350 in year 1, increasing to \$117,315 in year 5), Federal Funding (\$360,875 by year 5), and Other Funding (\$77,050 in year 1, increasing to \$732,810 in year 5). The "Other Funding" sources include state contracts (e.g., DHEC, DOT, PRT, etc.), local contracts (e.g., City of Greenville, County contracts with counties or Councils of Governments), foundation support (e.g., Kellogg Foundation, Sustainable Universities, etc.), and endowment development. The proposal does not contain any specific information about Clemson's intention to seek special funding. Clemson officials have confirmed with staff that no request for special appropriation is anticipated for FY 2004-05.

Recommendation

The Committee on Academic Affairs and Licensing recommends that the Commission approve Clemson University's Center for Community Growth and Change effective immediately.

UNIT ADMINISTRATION/FACULTY/STAFF SUPPORT						
YEAR	NEW		EXISTING		TOTAL	
	Headcount	FTE	Headcount	FTE	Headcount	FTE
Administration						
2004 – 05	0	0	1	.5	1	.5
2005 – 06	1	.5	1	.5	2	1
2006 – 07	0	0	2	1	2	1
2007 – 08	0	0	2	1	2	1
2008 – 09	0	0	2	1	2	1
Faculty						
2004 – 05	2	.5	8	2	10	2.5
2005 – 06	1	.25	10	2.5	11	2.75
2006 – 07	1	.25	14	3.5	15	3.75
2007 – 08	0	0	17	4.25	17	4.25
2008 – 09	0	0	20	5	20	5
Staff						
2004 – 05	1	1	2	1.5	3	2.5
2005 – 06	2	2	3	2.5	5	4.5
2006 – 07	0	0	5	4.5	5	4.5
2007 – 08	0	0	5	4.5	5	4.5
2008 – 09	0	0	5	4.5	5	4.5

**New Program Proposal
Center for Optical Materials Science and Engineering Technologies (COMSET)
Clemson University**

Summary

Clemson University requests approval for an existing interdisciplinary research center entitled the Center for Materials Science and Engineering Technologies (COM SET), housed in the College of Engineering and Science.

The Clemson Board of Trustees approved the proposed Center for Optical Materials Science and Engineering Technologies on April 12, 2000, according to the Director of the Center. The proposal was submitted for Commission review on October 24, 2003. The proposal was reviewed without substantive comment and voted upon favorably by the Advisory Committee on Academic Programs at its meeting on January 21, 2004.

At the Advisory Committee meeting, Clemson indicated that it was seeking formal Commission approval for the Center at this time, because Clemson is requesting a \$1,000,000 below-the-line appropriation from the state for FY 2004-05 and in each of the next four years in support of the Center's development. The Center has also applied to become a funded project under the state's lottery-funded Research Centers for Economic Excellence Endowed Chairs program. According to the proposal, in the Center's first three years of existence it has received a mix of federal, private, and state funding. However, Clemson officials have noted that "state funding" for the Center has been limited to a faculty project funded through the Commission's South Carolina Research Initiative Grant program and administered through COMSET.

The purpose of the Center is to provide a centralized and focused entity for study and research related to photonics. The Center will focus its research on the tailoring of optical materials at structural size levels ranging from the molecular level through microscopic scale. In addition to research at Clemson, the Center will focus on

cooperation with the existing private sector, on the development of spin-off corporations to aid the work of the Center and provide economic development for South Carolina, and on interinstitutional cooperation with South Carolina's technical colleges to develop the workforce prepared for employment in this field and with two public institutions of higher education in North Carolina.

No academic degrees will be awarded by the Center. Faculty associated with the Center will be members of academic departments of the College of Engineering and Science. The need for the Center is based on several factors, including the vast increase in global spending in photonics and the fact that 70% of all photonics-related materials in the United States are fabricated within 150 miles of the Clemson campus. The proposal cites the role that the knowledge-based economy will increasingly play in the state and the world. In that regard, the Center is involved in developing partnerships among private sector corporations and technical colleges in South Carolina. Partnerships have been developed with UNC-Charlotte and Western Carolina University in Cullowee, NC, because these two institutions conduct compatible research in photonics, according to the personnel at the Center. No other institutions in South Carolina have such compatible research at this time, according to Clemson.

According to the proposal, the Center will build upon and cooperate with existing academic and research strengths at the University, including the interdisciplinary Center for Advanced Engineering Fibers and Film and the Spiro Center for Entrepreneurial Leadership. The Center has already spun off two new South Carolina-based corporations, Tetramer in Seneca, SC, and Advanced Photonic Crystals in Fort Mill, SC, as a result of its work.

The Center will not offer courses or degree programs. Students will conduct research within the Center but will be enrolled in degree programs within their home departments.

Initially, six faculty members at Clemson, all of whom administer grants through the Center, will participate in the Center's activities. These faculty will hold primary appointments in existing academic units and will maintain their curriculum-related duties within these units. These faculty will have the title of "Senior Fellow" and will be required to fund Center projects and activities through extramural research grants or contracts. No new faculty will be required to support the proposed Center. However, it is anticipated that this interdisciplinary center will grow to involve 15 faculty members by academic year 2007-2008.

There are no physical plant or equipment requirements for the proposed Center. Faculty will utilize the office and research space already allocated to them within their

individual departments or as provided specifically by the University for the use of the Center's activities. Although library resources were not evaluated against national academic library standards, the proposal affirms that the library resources are sufficient for the work associated with the Center.

The Center will not be required to seek any accreditation, approval, licensure, or certification.

The Center will be housed within the College of Engineering and Science and its director, who will be a faculty member from that College, will report to the Associate Dean for Research and Graduate Studies in the College of Engineering and Science. The Director will have a .25 FTE appointment on a calendar basis. The operating funds for the Center will come entirely from the 10 percent overhead that is returned to the Clemson Environmental Institute from external grants and contracts. These funds will be used to pay for the release time and summer salary support of the Director and associated faculty. After three years of the Center's existence, in FY 2002, externally-funded projects that came under the Center's management already had reached a total of approximately \$5.7 million, accounting for 5.5% of Clemson's total research activity, according to the proposal.

Estimated new costs begin at \$32,500 in FY 2004-05 and include \$25,000 for program administration and \$7,500 for clerical support. This amount increases to \$77,500 by FY 2007-08 and includes \$40,000 for program administration and \$37,500 for clerical support. Total costs for the Center's first five-year period are projected at \$327,500.

Revenue to the Center in 2004-2005 is projected to include \$1 million from "below-the-line" state legislative appropriations and \$5 million in federal research grants. In each of the four subsequent years, projections include a total of \$1 million from "below-the-line" state appropriations and \$4 million in federal research funds. In addition, in the third year \$1 million is anticipated from "other" sources; this "other" category is anticipated to grow to \$5 million in each of the fourth and fifth years of the Center's existence. In summary, \$42.0 million in revenue is projected for the Center in this five-year period.

In summary, Clemson University seeks Commission approval for a promising research center. The Center will promote interdisciplinary cooperation at Clemson as well as interinstitutional research development with other higher education institutions. It will cooperate with technical colleges for developing the trained workforce needed in the photonics industry. The Center already has provided, and will continue to provide, for increased economic development by the incubation and spin-off of photonics-related corporations in South Carolina.

Recommendation

The Committee on Academic Affairs and Licensing recommends that the Commission approve Clemson University's Center for Optical Materials Science and Engineering Technologies effective immediately.