New Program Proposal
Master of Science
Project Management
The Citadel

Summary

The Citadel requests approval to offer a new program leading to the Master of Science degree in Project Management to be implemented in Spring 2010. The proposed program is to be offered through a combination of traditional and online instruction methods on The Citadel campus and at the Lowcountry Graduate Center.

The Program Planning Summary was submitted to the Commission in November 2008 and reviewed and voted upon favorably without substantive comment by the Advisory Committee on Academic Programs (ACAP) on January 15, 2009. The Citadel Academic Board approved this proposal on April 21, 2009. At The Citadel, new academic programs do not require approval by the Board of Visitors unless they result in the establishment of a new school or department, which this does not; however, the Board of Visitors was informed of the proposed program proposal at its April 2009 meeting. The full proposal was received by the Commission on May 1, 2009.

According to the proposal, the purpose of the proposed program is to provide "the management knowledge and performance competencies which can be used by graduates from all disciplines involved in managing technical projects." The institution also states that the proposed program will "enhance a graduate's ability to earn a Project Management Professional (PMP) Certification" and/or "enhance a graduate's ability to become a licensed Professional Engineer." The program proposal states that the program will initially offer three "option areas," two in engineering and one in general leadership.

The proposal indicates that the proposed program will provide "career and professional development to technical managers and junior executives within a broad spectrum of industries." The Citadel has clarified to staff that this spectrum includes such disciplines as civil engineering, computer engineering, and construction management, and such industries as the military, state government, aeronautics, and manufacturing. At the January 15, 2009, Advisory Committee on Academic Programs meeting, a representative from The Citadel stated that the proposed program is not only for engineers but for a broad range of scientists, physicists, and chemists interested in program/project management.

While the program proposal does not indicate any specific student demand for this program, the proposal does indicate that the Charleston Project Management Institute

(PMI) chapter recommended the content of the proposed program. Also, a number of military and business representatives (including representatives from Boeing, Lockheed Martin, and the South Carolina Research Authority) met in September 2008 to provide input into course development. A statement from this meeting by Colonel John C. Millander, Commander of the 437th Airlift Wing in Charleston, is provided in the proposal: "This advanced academic degree opportunity will provide significant educational and career development opportunities for more than 7,000 active duty military personnel, reservists, family members, and Department of Defense civilians serving at Charleston Air Force Base." The proposal also notes that enrollment for the Technical Project Management (TPM) graduate certificate (which will serve as the curricular core for the proposed degree) has increased in the past three years.

According to staff research, the U.S. Bureau of Labor Statistics (BLS) divides the occupation of project management into three categories: computer and information systems managers, construction managers, and cost estimators. Construction management (with respect to construction engineering) and computer systems management are the main foci of the proposed degree. BLS anticipates that construction management employment will grow by 16 percent between 2006-2016, with the number of jobs increasing from 487,000 to 564,000; that computer systems administrator employment will grow by 27 percent between 2006-2016, with the number of jobs increasing from 309,000 to 393,000; and that overall engineering employment will grow by 11 percent over the period of 2006-2016, with more than one-half million new and net replacement engineering positions projected by 2016 and total national engineering positions increasing to nearly 1.7 million.

The proposal indicates that The Citadel currently offers a 12-credit hour graduate certificate in Technical Project Management, which will form the core area of the proposed degree. In addition, The Citadel Graduate School offers evening classes to non-traditional (non-cadet) students leading to the B.S. in Business Administration, the B.S. in Civil Engineering, and the B.S. in Electrical Engineering. According to The Citadel, some of the courses in the proposed degree will also serve as elective courses for the M.B.A. program and an M.S. program in Computer Science.

According to the proposal, no public South Carolina institution offers an advanced degree in Project Management. Staff has identified three South Carolina-licensed institutions authorized to offer classroom-based advanced degrees in Project Management: an M.B.A. in Project Management at Strayer University (Charleston, Columbia, and Greenville campuses); an M.S. in Project Management at Embry-Riddle Aeronautical University (Greenville campus); and an M.B.A. in Project Management at University of Phoenix (Columbia campus).

Staff has identified a number of national institutions which offer a master's degree program in Project Management (MPM). The MPM at Western Carolina University was

the first such program offered in the U.S. at a nationally accredited institution, and the first to be accredited by PMI. An advanced degree program which approximates the scope of the proposed degree is the master's in Management Science and Engineering at Stanford University. Staff also identified a master's of science program in Engineering Management at University of Louisville, University of New Orleans, and University of Tennessee-Knoxville.

The proposal indicates that the proposed program "is not subject to specialization or professional accreditation." According to staff research, however, accreditation is possible through ABET and the Project Management Institute Global Accreditation Center (GAC), an accreditation agency not approved by the U.S. Department of Education or by CHEA. Staff at The Citadel have indicated that the institution is aware of these accreditation bodies and is considering accreditation options.

The proposed program will consist of 30 credit hours of course work, including a core requirement of the four courses which currently comprise the Technical Project Management graduate certification (12 credit hours) plus two Business Administration leadership courses (6 credit hours). Following completion of the 18-credit hour core curriculum, students would then choose a 12-credit hour option area in either Civil and Environment Engineering, Electrical and Computer Engineering, or Leadership. According to The Citadel, students who receive the proposed degree will also receive the Technical Project Management graduate certificate.

The proposal states that all 20 of the graduate engineering courses offered for this proposed degree are new courses. (The institution has further explained that each of the new graduate courses has been approved by The Citadel Graduate Council and Academic Board. The Citadel plans to offer one Civil Engineering and one Electrical Engineering course each semester and in the summer.) In the Leadership option area, the only new course is Applied Leadership Concepts (ENGR672).

According to the proposal, admissions requirements include a bachelor's degree from an accredited institution, satisfactory GRE scores, and at least one year of relevant work experience. Concerning transfer criteria, the proposal states, "Transfer credit into the … program will be accepted in accordance with The Citadel Graduate College policy on transferring graduate credit."

The proposal anticipates there will be 35 new students (14 FTE) in the program's first year, increasing to 55 students (23 FTE) in the second year, and stabilizing at 50 students (22.5 FTE) by the third year of the program. If enrollment and program completion projections are met, the proposed program will meet the Commission's productivity standards.

The proposal indicates that no new faculty members will be added in the proposed program's first two years, during which one adjunct professor (.66 FTE) and course overloads will be used for all new program courses. In the proposed program's third year, one new faculty member (1 FTE) will be hired in the Department of Civil and Environmental Engineering to handle one TPM graduate course each semester and the ENGR leadership course. According to an institutional representative, two existing faculty members (1 FTE) will be shifted to the program in the fourth year (2.66 FTE total). The proposal lists as currently on staff and additionally available to support the program one adjunct engineering professor, four assistant engineering professors, six associate engineering professors, and two engineering professors who will provide graduate instruction for the required curriculum core and option tracks.

The proposal states that no new costs, including additional physical space, equipment or library resources, are required for the successful implementation and administration of the new program. The Citadel has committed $46,750 from the Dean's Excellence Fund for the School of Engineering (which derives from private donations) as a source of financing.

Below are the estimated Mission Resource Requirement (MRR) costs to the state and new costs not funded by the MRR associated with the implementation of the proposed program during its first five years. Also shown are the estimated revenues projected under the MRR and the Resource Allocation Plan as well as student tuition.

Estimated Program Costs and Revenue

	Estimated Program Costs		**Estimated Program Revenue**				
	(A) MRR Cost	**(B) Other Costs***	**(C) Actual State Funding**	**(D) Tuition**	**(E) Additional Revenue**	**(F) Total Revenue (C+D+E)**	**(G) Total Revenue - Total Costs (F-(A+B))**
Year 1	$168,378	$0	N/A	$114,928	$8,000	$122,928	-$45,450
Year 2	$276,621	$0	$153,442	$188,774	$8,750	$350,965	$74,344
Year 3	$270,608	$0	$252,168	$184,365	$9,500	$446,032	$175,425
Year 4	$270,608	$0	$247,410	$184,365	$10,000	$441,775	$171,167
Year 5	$270,608	$0	$247,410	$184,365	$10,500	$442,275	$171,667

*Includes costs of an extraordinary nature not otherwise included in the MRR cost calculation (e.g., costs for a new building required to support a program).

These data demonstrate that if The Citadel can meet the projected student enrollments and contain costs as shown in the proposal, the proposed program will be able to cover costs with revenues it generates beginning in the second year of implementation.

In summary, The Citadel is proposing a program leading to the Master of Science degree in Project Management. Designed to be interdisciplinary within the field of technical project management, the program will draw heavily from current resources and materials in the School of Engineering as well as the School of Business Administration and the Department of Psychology. The proposed program is intended to provide the management knowledge and performance competencies in managing technical projects, as well as enhance a graduate's ability to earn PMP Certification or to become a licensed professional engineer.

Recommendation

The Committee on Academic Affairs and Licensing commends favorably to the Commission approval of the program leading to a Master of Science degree in Project Management to be offered at The Citadel and at the Lowcountry Graduate Center, to be implemented in Spring 2010, provided that no "unique cost" or other special state funding be required or requested.