University of South Carolina

New Degree Program in Engineering Management

MS in Engineering Management International Concentration

College of Engineering and Computing

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Date of Submission

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Harris Pastides, President

Program Title:	Engineering Management
Degree Designation:	Master of Science in Engineering Management
List of Emphases, if applicable:	International Concentration
Academic Unit Involved:	College of Engineering and Computing
Designation, Type, and Level of Degree:	MS in Engineering Management
Proposed Date of Implementation:	Fall 2012
CIP Code from the Current USDOE's Classification of Instructional Programs	15.1501
Identification of Programs as New or Modification:	New
Site:	University of South Carolina - Columbia
Program qualifies for supplemental Palmetto Fellows Scholarship and LIFE Scholarship Awards:	No
Delivery Mode:	Executive as well as distance

Justification

Engineering managers supervise and lead teams of engineers and other technical personnel for product development, manufacturing and marketing, for the planning, design and construction of project components and structures, participate in the analyses for making economic decisions, optimize the utilization of available resources to meet project objectives, lead and/or participate in the negotiation teams for acquiring new projects and for undertaking various activities of ongoing projects at the local, state and international level. In addition to the technical knowledge and expertise in the related area of specialization, these activities require knowledge of economics, finance, marketing, human resources, contract and environmental law and other legal issues, environmental impact of the project, sustainability issues, public relations, etc.

Almost all undergraduate engineering programs in the United States concentrate mainly on the technical subjects in the area of specialization and include some university mandated material on arts and humanities. However, the topics listed above that are necessary for management are usually not covered in a typical undergraduate curriculum. Thus, a significant number of engineers who are called upon to fill the managerial roles in their organization as they attain seniority lack suitable training in management-related activities and learn by trial-and-error once they are on the job. As expected, this could have disastrous consequences for the organization as

well as the morale of personnel involved. To provide training in this area, several educational institutions in the United States have started to offer a MS degree in Engineering Management in recent years. Based on the data reported by The American Society for Engineering Education, Table 1 lists the enrollment in Engineering Management during 2010 at selected US institutions and Table 2, in other programs similar to Engineering Management. Other than a related program of Project Management at the Citadel, approved in 2009 by the South Carolina Commission on Higher Education, no other institution in South Carolina offers a program for engineers and technical personnel that lead to a Masters degree in engineering management.

Table 1

Nationwide 2010 Enrollment in Engineering Management

University	Degree	Number Enrolled (Part-time)	Number Enrolled (Full-time)	Region
Cornell University	ME	98	63	Mid-Atlantic
Northwestern University	MEM	37	135	Midwest
	MS	35	58	
Duke University	MEM	38	175	South
Florida Institute of Technology	MS	19	13	South
Florida International University	MS	48	38	South
McNeese State University	ME	1	1	South
Mercer University	MSE	11	7	South
Old Dominion University	MEM	213	18	South
	MS	14	1	
The Catholic University of America	MS	5	5	South
The George Washington University	MS	214	85	South
University of Louisville	ME	52	32	South
University of New Orleans	MS	22	2	South
University of North Carolina, Charlotte	MS	26	8	South
University of South Florida	MS	42	45	South
University of Tennessee, Chattanooga	MS	82	25	South
Southern Methodist University	MS	79	11	Southwest
The University of Texas – Pan American	MS	17	5	Southwest
The University of Texas at Arlington	MS	19	31	Southwest
The University of Texas at Austin	MS	67	12	Southwest
University of Arizona	MS	0	0	Southwest

Table 2

Enrollment in Programs Similar to Engineering Management Program	Number of Institutions Offering the Program	Degree	Number Enrolled (Part-time)	Number Enrolled (Full-time)
Environmental Planning and Management	1	MS	64	0
Management of Technology	2	MS, MSMOT	16	57
Project Management	2	ME, MS	61	21
Engineering and Management	2	MS	0	110
Technical Management	2	MS	152	1
Engineering and Technology Management	3	MS, MSETM	159	58
Management Science and Engineering	2	ME, MS	80	223
Construction Management	10	MCM, ME, MS	327	241

To fill this gap in South Carolina and in the Southeast, the proposed program is planned to produce qualified manpower necessary for the economic development of the state. It will be modeled after a very successful program at the Cockrell School of Engineering at the University of Texas in Austin, Texas (created by the new Dean of Engineering and Computing at USC whilst at UT Austin). Ideally, this will be offered leveraging multiple modes of learning, but will emphasize a distance education format nationally and internationally. In addition, globalization and inter-dependence of countries in recent years for trade, commerce and economic development require exposure to different social and cultural settings for developing successful partnerships. For this purpose, an option with International concentration will be available to provide international experience in a foreign country as well as opportunities for foreign languages training.

Anticipated Program Demand

The proposed program should be of interest to a wide group of engineers whose career goals are to assume technical managerial positions and encompass all engineering disciplines, e.g., chemical, civil, electrical, mechanical, nuclear and software engineering in South Carolina as well as in the neighboring states of North Carolina and Georgia. The distance education component will attract students nationally and internationally as well as US citizen on overseas deployment. The program will be offered as an executive program, offered in synchronous and asynchronous delivery modes throughout the year to make it attractive to practicing engineers employed full-time. Courses will be offered providing flexibility for completing the requirements for award of the degree.

Once the program is fully developed, we anticipate a total enrollment of about sixty; 20 for in-class instruction and about 40 through distance education.

Employment Opportunities

The graduates of this program will have ample opportunities for high ranking jobs in the private sector, consulting engineering firms and industry as well as in local, state and federal government agencies. This includes in-state organizations as well as outside the state and in foreign countries. Evidence of the demand should be apparent from the new programs being developed in Tier 1 institutions during the last few years such as Cornell, Northwestern, Duke, George Washington, etc. Table 1 lists the enrollments in Engineering Management programs at selected schools nationwide.

Based on information from the Bureau of Labor Statistics' website, the total number of Engineering Managers in the United States was estimated to be 174,720 in May 2010 with an approximate average annual salary of $125,900 (http://www.bls.gov/oes/current/oes119041.htm). In South Carolina alone, the concentration of engineering managers is 1.444 employment per thousand jobs, with an average annual salary of $111,410 (http://www.bls.gov/oes/current/oes_sc.htm).

Program Relationship to Mission

The mission of this program and that of the University of South Carolina, as defined by the Commission, are similar. In particular, this program will result in producing engineers and other technical personnel who will contribute to the economic development of the state. Such contributions will include developing and efficiently utilizing the available natural and human resources, attracting new businesses from other states as well as from other countries and exporting products and providing technical services inside and outside the state.

Relationship of the Proposed Program to Other Institutional Programs

The proposed program will complement the existing graduate programs in the College of Engineering and Computing by making more graduate courses available to the full-time graduate students as well as those enrolled in the distance education program. For this MS program in Engineering Management, plans are to provide courses on marketing, managing people and organizations, projects and processes, legal issues concerning contracts, human resources, environment, intellectual property, art and science of negotiations, public relations and interaction with the public in addition to technical-related courses on risk analysis, sustainability, environmental impact, planning and scheduling, human factors etc. A number of these courses will have to be developed for this program. To expose the students to different cultural and social settings and different working conditions, and for learning a foreign language, an option will be provided for international experience for short periods in different countries.
The College of Engineering and Computing has been running successful distance-education graduate programs in different departments for about four decades. This planned program in engineering management will be a good addition to the existing programs and provide additional options to the graduate students in the future.

The Moore School of Business, the School of Law, and School of Journalism and Mass Communications will participate in the proposed program by providing overall design support

and instruction via several courses on marketing, negotiations, legal issues, environmental law, intellectual property, human resources and communications. This collaborative effort will increase interaction of these colleges with the College of Engineering and Computing and will be helpful for multi-disciplinary research and instruction in the future.

Relationship of Proposed Program to Existing Programs in SC

To the best of our knowledge, there is no other program in the state leading to a Master's of Science degree in Engineering Management except the Project Management program at the Citadel that is somewhat similar but different in several ways, as discussed in the following paragraph. Different institutions in the state may have individual courses in management, accounting, economics, etc. but do not have a coherent program leading to a degree in Engineering Management.

The proposed program is different from the Project Management program offered at the Citadel in that it has significantly more emphasis on the management-related courses than on the technical courses as structured by the Citadel program; the proposed program has an option for an International concentration that will be unique nationally. It will be an executive/professional program with instruction on two days/month during the regular semesters and two weeks during the summer as well as offered utilizing multiple timing and delivery methods to meet the needs of the working professionals as compared to instruction during regular office hours or evenings. In addition, delivery at foreign schools will be explored to make the program attractive internationally. As indicated in their proposal to the Commission, the program at the Citadel appears to be mainly geared for the engineers in the Low Country.

An MOU between the colleges of engineering of USC and the Citadel has been finalized for collaboration, especially for the two management programs. A copy of the MOU is included in the Appendix. This collaboration will allow students to take classes and the faculty to teach courses at the partner institutions, and in the long term, to develop compatible distance education facilities to significantly raise the level of this collaboration which will be beneficial to both institutions as well as to the state.

Enrollment

Admission Criteria

The admission criteria will generally conform to those currently required by the USC Graduate School. In general, an applicant must have a baccalaureate degree or its equivalent in engineering, computer science or a related field from an accredited institution. Admission will be based on the applicant's GRE score, letter of recommendation, GPA and quality of the applicant's prior education.

Projected Total Enrollment

Table 3 lists the estimated headcount in the program during the first five years based on enrollments in Engineering Management at different institutions. The enrollment is expected to grow at a faster rate during the first three years and then level off as it reaches the limit of available qualified students. Virtually all of the students will be new students.

For the credit hours listed in Table 3, it is assumed that the full-time student will be enrolled in a minimum of six hours during the fall and spring semesters and during the summer and that the part-time students will take three credit hours during each semester and summer.

Table 3

Projected New Enrollments: Headcount and Credit Hours

Year	Fall				Spring				Summer			
	Headcount		Credit Hours		Headcount		Credit Hours		Headcount		Credit Hours	
	PT	FT	PT	FT	PT	FT	PT	FT	PT	FT	PT	FT
2012-2013	10	5	30	30	12	8	36	48	12	8	36	48
2013-2014	16	8	48	48	20	10	60	60	20	10	60	60
2014-2015	24	12	72	72	30	15	90	90	30	15	90	90
2015-2016	40	20	120	120	40	20	120	120	40	20	120	120
2016-2017	40	20	120	120	40	20	120	120	40	20	120	120

Curriculum

A total of 30 credit hours are required with an additional nine hours for concentration in International experience. Six hours of MS thesis is required with a final oral examination for thesis defense. Student achievement of program objectives will be assessed based on the successful thesis project and defense, and on successful completion of the internship for those in the International Concentration.

Distribution of courses will be as follows:

Engineering and Computing	15 hours
Business	9 hours
Law	3 hours
Journalism and Mass Communications	3 hours

Within the 15 hours of Engineering and Computing course work, the students may follow any of three tracks: General, Energy and Cyber Security. The program will start with the General track and the other two tracks will be added later as the enrollment increases to a level that will make offering all the courses in the additional tracks economically feasible.

The course number for Thesis will be department specific in which the research is conducted. All courses are existing courses except three newly approved courses: ECIV 707, ECIV 708, and LAW 688. ECHE 573 and EMCH 797 have been taught as graduate courses under special topics.

International Concentration

For this concentration, the student will be required to have preliminary knowledge of a foreign language. Instruction equivalent to that for a three credit hour course will be provided at a foreign site to make the student fluent in the language as well as to prepare for a different social and cultural setting. For professional experience, students will earn credit for six hours by working on an internship program in a foreign country in the student's area of specialization at a company, industry, consulting engineering firm or government agency. The details of the internship program will be prepared in consultation with the foreign organization where the student will be working and approved by the College of Engineering and Computing prior to the student's departure to the foreign site.

Courses

a. Engineering and Computing

General Track:

- Management of Engineering Projects (3 hours - ECIV 707)
- Risk Analysis for Engineering Applications (3 hours - ECIV 708)
- One of the following Technical Courses (3 hours - CSCE 522, CSCE 715, CSCE 727, CSCE 790, ECHE 573, ECHE 789, ECIV 790, ELCT 510, ELCT 891, EMCH 529, EMCH 791)
- Thesis (6 hours)

Cyber Security Track:

- One of the following two courses (3 hours, ECIV 707, ECIV 708)
- Two of the following technical courses (6 hours - CSCE 522, CSCE 715, CSCE 727)
- Thesis related to Cyber Security (6 hours)

Energy Track:

- One of the following two courses (3 hours, ECIV 707, ECIV 708)
- Two of the following technical courses (6 hours - EMCH 791, ECHE 573, ELT 510)
- Thesis related to Energy (6 hours)

b. Business

Three of the following courses:

- Financial Accounting (3 hours - DMSB – ACCT 728)
- International Business Negotiations (3 hours - DMSB – IBUS 734)
- Management of Human Resources (3 hours - DMSB – MGMT 718)
- Organizational Behavior (3 hours - DMSB – MGMT 770)
- Marketing Management (3 hours - DMSB – MKTG 701)

c. Law

- Emerging Issues in Law and Engineering (3 hours - LAW 702)

d. Journalism and Mass Communications

- Communications (3 hours - JOUR 790)

Course Descriptions

College of Engineering and Computing:

ECIV 707 – (NEW) Management of Engineering Projects

The course Management of Engineering Projects focuses on using a system engineering approach for project management. Practical assignments are combined with accepted standards for managing and leading engineering projects. This includes topics such as risk, time and resources management of engineering projects among other subjects.

ECIV 708 – (NEW) Risk Analysis for Engineering Applications

The course covers the analysis of risk in engineering design. Risk analysis is presented in the context of reliability in engineering design including applications to mechanical and electrical systems. Concepts of failure modes are discussed. The effect of maintenance on reliability is presented along with discussions of life cycle costs.

EMCH 529 – Sustainable Design and Development (3 hours)

System design and development accomplished with consideration of environmental/ecological, economic, and social constraints. Students will be introduced to sustainable design and accomplish a design project. **Prerequisites:** consent of instructor/senior standing

CSCE 522 – Information Security Principles (3 hours)

Threats to information resources and appropriate countermeasures. Cryptography, identification and authentication, access control models and mechanisms, multilevel database security, steganography, Internet security, and intrusion detection and prevention. **Prerequisites:** CSCE 311 or MGSC 596

CSCE 715 – Network Systems Security (3 hours)

Analysis of security threats in TCP/IP networks. Design of safeguards. Coverage of security threats at each of the OSI layers. Application of cryptographic protocols for secure communication across a network. **Prerequisites:** CSCE 515 or 516

CSCE 727 – Information Warfare (3 hours)

Current trends and challenges in information warfare. High-level analysis of information warfare threats, like cyber terrorism, espionage, Internet fraud, intelligence activities, cyber ethics, and law enforcement. **Prerequisites:** CSCE 522

CSCE 790 – Topics in Information Technology (3 hours)

Reading and research on selected topics in information technology. Course content varies and will be announced in the schedule of courses by suffix and title. May be repeated for credit as topics vary.

ECHE 573 – Next Energy (3 hours)

Special topics related to current research in Next Energy. **Prerequisites:** Consent of Instructor

ECHE 798 – Selected Topics in Chemical Engineering (3 hours)

Approved for special topic offerings.

ECIV 790 – Selected Topics in Civil Engineering (3 hours)

Individual studies and/or investigations of special topics in the field of civil engineering. **Prerequisites:** consent of instructor

ELCT 510 - Renewable Energy Technologies: Photovoltaic Devices and Systems (3 hours)

Introduction to renewable energy technologies and sustainable energy sources with emphasis on principles of solar photovoltaic devices and systems. Devices and systems for practical applications and cost-benefit analysis. **Prerequisites:** Senior undergraduate or graduate standing

ELCT 891 – Selected Topics in Electrical Engineering (3 hours)

Selected topics in Electrical Engineering.

EMCH 791 – Alternate Energy (3 hours)

Special topics related to current research in thermal systems. **Prerequisites:** Consent of Instructor

Moore School of Business:

ACCT 728 – Financial Accounting (3 hours)

Directs attention to accounting concepts, conventions, and assumptions for an understanding of the content and underlying principles of financial statements.

DMSB–IBUS 734 – International Business Negotiations (3 hours)

Examines how decision makers in business and government settings manage the process and outcomes of negotiations. Cross-cultural negotiations in a global business environment.

DMSB–MGMT 718 – Management of Human Resources (3 hours)

The processes inherent in effective management of the organization's human resources. Topics include: employee selection, training, and development; design of compensation and reward systems; applied motivation models; and current issues in the management of human resources.

DMSB–MGMT 770 – International Business Negotiations (3 hours)

Development of an understanding of behavioral concepts necessary for effective production management of organizations. Current literature, case studies, and other simulations to demonstrate applicability of concepts. Concepts studies include perception, motivation, leadership, and intergroup conflict.

DMSB-MKTG 701 – Marketing Management (3 hours)

Marketing function with emphasis on the procedures and techniques for analyzing, planning, and implementing marketing strategies and tactics related to product, pricing, communication, and distribution decisions.

School of Journalism and Mass Communications:

JOUR 790 Topics in Mass Communications (3 hours)

The Management Function for Engineering Communicators. Will explore communication theories and practices that will help them better understand how to communicate through media to specific external constituencies, including clients, vendors, regulators, and the general public as well as internally within the organization. Special emphasis on communications strategies will allow managers to understand which communication tools will allow them to best communicate with all stakeholders.

School of Law:

LAW 702 (NEW) Emerging Issues in Law and Engineering (3 hours)

This course is designed for students who are enrolled in the graduate program for a Master of Science with a Major in Engineering Management. The course will introduce students to various areas of law and legal principles that may impact their ability to be effective managers. The lectures in the course will focus on a variety of topics, including: labor and employment law, business corporations, agency and partnership, contracts, intellectual property, administrative law, and environmental law.

Faculty

All faculty members in the program are presently full-time faculty in the College of Engineering and Computing, Business, Law and Journalism. If necessary, adjuncts may be used for a limited number of courses. In Table 5, the number of faculty and FTE increases with increases in the enrollment in the program, and the number of theses to be supervised.

Table 4

Rank and Academic Qualifications of Faculty in Program

Rank	Highest Degree Earned	Field of Study	Teaching in Field
Professor #1	Ph.D.	Chemical Engineering	Yes
Professor #2	Ph.D.	Civil and Environmental Engineering	Yes
Professor #3	Ph.D.	Civil and Environmental Engineering	Yes
Professor #4	Ph.D.	Electrical Engineering	Yes
Professor #5	Ph.D.	Mechanical Engineering	Yes
Professor #6	Ph.D.	Mechanical Engineering	Yes
Professor #7	Ph.D.	Journalism and Mass Communications	Yes
Professor #8	Ph.D.	Moore School of Business	Yes
Professor #9	Ph.D.	Moore School of Business	Yes
Associate Professor #1	Ph.D.	Civil and Environmental Engineering	Yes
Associate Professor #2	Ph.D.	Computer Science and Engineering	Yes
Associate Professor #3	Ph.D.	Computer Science and Engineering	Yes
Associate Professor #4	Ph.D.	Electrical Engineering	Yes
Associate Professor #5	**	Moore School of Business	Yes
Adjunct Professor #1	Ph.D.	Civil and Environmental Engineering	Yes
Adjunct Professor #2	J.D.	Law	Practicing

**** Clinical faculty; may not have a doctoral degree.**

Proposed Changes in Assignment for Current Faculty

The proposed program is an executive program with the lectures delivered on two days (Friday and Saturday) per month during the regular semesters and twice in six consecutive days (7 contact hours/day) during the summer. This program will be staffed by existing faculty paid extra compensation on a per course basis, and by adjunct faculty. The program fee will be sufficient to cover overload compensation for faculty and staff, or adjuncts, as well as other associated operating expenses.

Institutional Plan for Faculty-Development

The existing faculty is involved in teaching, research, and service activities and institutional processes and procedures are in place for faculty-development at the department, college and university level. Any new faculty hired according to previously approved plans will be mentored by the senior faculty for their career development.

Institutional Definition of Full-time equivalents (FTE)

One FTE is equivalent to a teaching load of 100 undergraduates, 48 Master's or 18 doctoral graduate students in a 3-hour class.

Table 5

Overall Headcount and FTE of Faculty, Administrators and Staff for the Program

	New		Existing		Total	
	Headcount	**FTE**	**Headcount**	**FTE**	**Headcount**	**FTE**
Year	**Administrators**					
2012-2013	0	0	1	0.25	1	0.25
2013-2014	0	0	1	0.25	1	0.25
2014-2015	0	0	1	0.25	1	0.25
2015-2016	0	0	1	0.25	1	0.25
2016-2017	0	0	1	0.25	1	0.25
Year	**Faculty**					
2012-2013	0	0	8	1.0	8	1.0
2013-2014	0	0	15	1.5	15	1.5
2014-2015	0	0	20	2.25	20	2.25
2015-2016	0	0	30	3.33	30	3.33
2016-2017	0	0	30	3.33	30	3.33
Year	**Staff**					
2012-2013	1	0.5	1	0.5	2	1.0
2013-2014	0	0	2	1.0	2	1.0
2014-2015	0	0	2	1.0	2	1.0
2015-2016	0	0	2	1.0	2	1.0
2016-2017	0	0	2	1.0	2	1.0

Physical Plant and Equipment

No additional physical space will be needed for the proposed program.

Supporting Resources

Present facilities will suffice during the first two years. However, as enrollment increases, a larger room with teleconferencing facilities will be needed for the delivery of courses via distance education.

Equipment

Other than existing teleconferencing facilities for distance education, no specialized equipment or facilities will be needed for the proposed program.

No laboratory space will be needed for the proposed program.

Library Resources

USC Libraries

The Thomas Cooper Library currently has 19,764 books and subscribes to 758 periodicals in management and related fields. Electronic subscriptions to many journals and other resources are available through inter-library loans.

In addition, Moore School of Business maintains its own library (Elliott White Springs Business Library) which currently has 7, 507 books and 79 periodicals pertaining to management and other related fields. The library currently has an acquisition budget of $270,637 for Business related subscriptions to journals and databases and $9756 for Business related books.

The university's total budget for the purchase of new books and periodicals totals $6.02 million. The College of Engineering and Computing's allocated amount for periodical subscriptions is $228,504 and $10,800 for books. The School of Journalism and Mass Communications has a budget of $35,732 for new periodical subscriptions and $6785 for new books. The USC School of Law maintains their own library (Coleman Karesh Library) separate from the university system which has an acquisition budget of $1,036,074 for the purchase of new books, journals and other periodicals.

Assessment of Current Holdings

The current library holdings are more than adequate for research and teaching for the proposed program.

Estimate of Acquisitions Needed Annually

The current acquisition budget is adequate for the library resources to be current and up-to-date for teaching and research for the proposed program.

Accreditation

The proposed program will not seek accreditation.

Table 6

Costs to the Institution

Estimated Costs By Year						
Category	**1st**	**2nd**	**3rd**	**4th**	**5th**	**Total**
Program Administration	30,000	30,000	30,000	30,000	30,000	150,000
Faculty Salaries	36,000	42,000	48,000	54,000	54,000	234,000
Graduate Assistants	0	0	0	0	0	0
Clerical/Support Personnel	45,000	45,000	45,000	45,000	45,000	225,000
Supplies & Materials	5,000	5,000	5,000	5,000	5,000	25,000
Library Resources	0	0	0	0	0	0
Equipment	0	0	0	0	0	0
Facilities	0	0	0	0	0	0
Other/Operating	0	0	0	0	0	0
Total	116,00	122,000	128,000	134,000	134,000	634,000

Sources of Funding

Sources of Funding						
Source	**1st**	**2nd**	**3rd**	**4th**	**5th**	**Total**
Estimated Revenue Generated from Tuition	137,940	203,280	304,920	435,600	435,600	1,517,340
Other State Funding	0	0	0	0	0	0
Reallocation of Existing Resources	0	0	0	0	0	0
Total	137,940	203,280	304,920	435,600	435,600	1,517,340

The revenue from tuition is estimated at $455 per credit hour based on the credit hours shown under the projected enrollment and an APOGEE / Executive Program fee of $150 per credit hour. All tuition goes to the University's general fund; allocation back to the College of Engineering and Computing is determined by the annual strategic planning / budgeting process. Funds for compensation to the faculty of other colleges will be transferred to the respective colleges each semester.

Inter-Institutional Approvals

A. Five Departments	
Chemical Engineering	9/15/2011
Civil and Environmental Engineering	9/15/2011
Computer Science and Engineering	9/15/2011
Electrical Engineering	9/15/2011
Mechanical Engineering	9/15/2011
B. College of Engineering and Computing	9/15/2011
C. Graduate Council	10/24/2011
D. University Provost	10/17/2011
E. USC President	10/17/2011
F. USC Board of Trustees	12/13/2011

Appendix

Memorandum of Understanding
The University of South Carolina
and
The Citadel

THIS Memorandum of Understanding is made and entered into by and between the College of Engineering and Computing at the University of South Carolina, Columbia, South Carolina, U.S.A., hereby represented by its President, Harris Pastides (hereinafter referred to as USC) and the School of Engineering at the Citadel, Charleston, South Carolina, U.S.A., hereby represented by its President, Lieutenant General John W. Rosa (hereinafter referred to as the Citadel).

Both parties agree to promote activities to enhance their educational and academic research programs.

The officials of both institutions have the legal capacity to make and enter into this supplement agreement under the following terms and conditions:

General

The main objective of this agreement is to provide opportunities to faculty and graduate students for academic excellence in different areas of specialization, especially in the Engineering Management and Project Management programs. These opportunities include enrollment in the graduate classes of the partner institution, cross-listing graduate courses, and facilitating faculty members to teach courses at the partner institution or to participate and undertake collaborative research, etc. Long-term plans will include the development of compatible distance-learning classrooms at both institutions depending upon the availability of resources, so that students may enroll in classes offered at the partner institution.

This memorandum of understanding does not require either USC or the Citadel to assume any financial obligations unless such obligations are included in a specific written agreement.

No party shall have the right to assign any duty or responsibility without consent from the other party. Neither party shall use the name of the other institution, its initials, stamp, logos, seal, or any other identifying emblem or distinctive symbol of the other institution without the express written authorization of the institution to which said objects belong.

Each college will appoint a program coordinator to oversee the various activities listed in this agreement and to take actions to improve the program.

Academic admission requirements:

Students enrolling in courses at the partner institution must be in good academic standing at their host institution.

Each partner institution may require candidates to complete their normal admission documents and to require the results of appropriate entrance examinations.
Each partner institution may accept or reject any student for admission on the basis of its regular academic selection criteria. All candidates for admission will satisfy the departmental, college, and university requirements for admission.

Academic Performance:

Participating students must maintain satisfactory academic performance according to criteria set by the departments and colleges in which the students are enrolled as well as of their host institution to maintain good academic standing.

Academic Advising and Supervision:

The departmental/graduate directors will be available to advise the students on the policies and procedures of their respective colleges and departments. However, students will be responsible for familiarizing and following those policies and procedures and for preparing any additional documentation which may be required by their host institution.

Tuition and Compensation:

Regular tuition and other applicable fees will be paid by the students to the institution offering the class. Faculty teaching a class at the partner institution may be paid compensation with approval by the deans of the partner institutions.

Faculty Collaborative Research

USC and the Citadel will encourage interaction and exchanges among faculty and other researchers and will explore and undertake other cooperative activities in common areas of research, teaching, and service.

Intellectual Property:

The parties do not anticipate the development of new Intellectual Property as part of this collaboration. However, if any inventions or copyrighted works materialize, all rights in the inventions or materials, including patentable software created, shall be the property of the individual or joint property of the institution employing the respective researcher(s) who made the invention or discovery or developed the copyrighted works. Such inventions shall be reported by the researcher according to his/her institution's policy on patents. In the event that there are joint discoveries, the parties agree to negotiate a separate license agreement within 60 days of any notice from either party.

Modifications and Terms

Any amendment or modification to this document or the program must be made in writing and approved by both parties. For conditions not covered by this agreement, or for any problems which may arise during the course of the agreement, both parties agree to refrain from unilateral actions, and to consult and negotiate to reach mutually acceptable decisions on such problems.

This agreement shall take effect upon receiving the final executed signature and shall be effective for a period of five (5) years and automatically renewable under the same terms for an additional five years. This agreement may be terminated by either party with 30-days advance, written notification, allowing that currently enrolled students may complete their coursework without any negative impact.

IN WITNESS WHEREOF, the parties through duly authorized official do execute this Memorandum of Understanding.

The Citadel

Lieutenant General John W. Rosa, President

15 Sep 11

Date

University of South Carolina

Harris Pastides, President

OCT 18 2011

Date