



Fayetteville State University

Phase II Campus Response to the

University of North Carolina Tomorrow

5.2 Review of Proposed New Programs

January 15, 2009

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Preface

This report constitutes Fayetteville's State University's response to the UNC Tomorrow Commission's findings, 5.2.B Academic Programs. FSU's report on low-producing and newly-established programs was submitted on December 15, 2008. This report identifies academic programs that FSU intends to develop in the next one to three years. Programs proposed in this report will increase FSU's capacity to meet the needs of southeastern North Carolina.

Proposals for two new programs have already been submitted to UNC General Administration for review: 1) the Bachelor of Science in Intelligence Studies, and 2) the Bachelor of Social Work. The proposed implementation date for these programs is fall 2009.

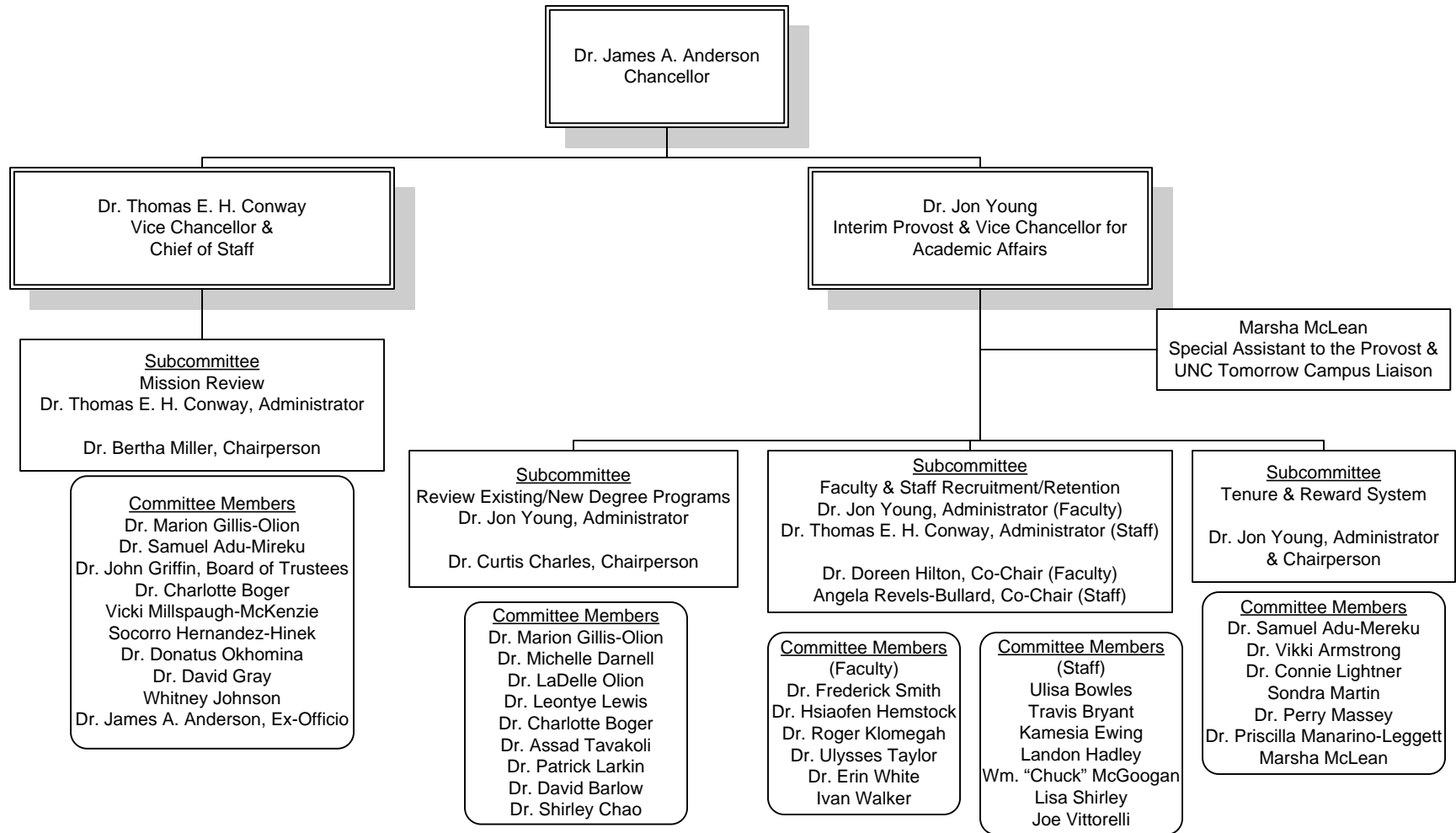
These responses were prepared by sub-committees for each section that included faculty, staff, and administrators. The UNC Tomorrow Phase II Committee Structure is shown on the next page.

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UNC Tomorrow Phase II

Campus Response Committees
Fayetteville State University
Fall 2008



Proposed Undergraduate Programs

1. **Name of Degree Program:** Bachelor of Science (B.S.) in Applied Physics
2. **CIP Category:** Physics
3. **Level of Program:** Bachelor's

4. **Brief Description of the Program:** The Bachelor of Science in Applied Physics will be a four-year program offered with a concentration in medical physics. This program is designed to prepare students for career opportunities in health science and biotechnology. The B.S. in Applied Physics will provide sufficient course work in Physics to enable graduates to pursue advanced degrees in graduate research, engineering, or other fields that seek candidates with a specialization in Physics.

5. **Timeframe for the program (when it is likely to be proposed and when it is likely to be implemented if approved by the Board of Governors):**
 - Intent to Plan: Spring 2009
 - Projected implementation: Fall 2010

6. **Current or planned interaction with other campuses (such as joint or consortia programs):** FSU intends to explore the opportunity of developing partnerships and memos of understanding with regional community colleges.

7. **Mode or modes of delivery of the program:** Combination of face-to-face and online delivery

8. **Brief rationale for the program (including, where relevant, reference to UNC Tomorrow and high- need areas the program would serve):** The Bachelor of Science in Applied Physics addresses the UNC Tomorrow recommendation 4.1.1 related to the preparation of students, particularly the underrepresented minority students, for successful professional careers in the 21st Century. In recent years, many developing fields such as homeland security, medical and environmental sciences, and alternative energy sources have shown a growing demand for trained physicists.

The proposed B.S. in Applied Physics, which focuses on health and medical physics, relates to the UNC Tomorrow 4.5. This recommendation calls for the development of academic programs as well as collaborative strategies in support of critical areas of allied health, nursing, medicine, dentistry, pharmacy, and related fields in response to the needs of North Carolina for health care providers. One focus of the program is to train individuals to apply the basic conceptual framework of Physics to health and medical situations and problems.

In line with UNC Tomorrow's recommendation 4.2, the Applied Physics program will strengthen partnerships with community colleges in the region to ensure continuous improvement in the academic achievement of NC students. Students with associate degrees in technical fields such as medical technology, radiology, electronics, etc., will be recruited for completing a B.S. in Applied Physics. UNC Tomorrow recommendation 4.2.2 will also facilitate collaborative research and partnerships with industry, the U.S. military, and the Federal Government.

1. **Name of Degree Program:** Bachelor of Science (B.S.) in Physical Education Science
2. **CIP Category:** Physical Science
3. **Level of Program:** Bachelor's

4. **Brief Description of the Program:** The B.S. in Physical Science Education will prepare educators to teach students in Grades 9 through 12 in any area of the physical sciences. The program will allow pre-service teachers to (1) specialize in one of three areas recognized by the NC Department of Public Instruction (Physics, Chemistry, and Earth/Environmental Science) by following specially prepared tracks and (2) be certified in one of these areas and to accrue a sufficient number of credits in each of the other two areas to teach them as well. The Physical Science Education program will include University College core courses, Professional Education courses, and science concentration track and co-related science courses. This alignment of courses will meet the subject area competencies required by the NC Department of Public Instruction and provide the necessary content knowledge and pedagogy to be successful on the required PRAXIS battery of tests.

5. **Timeframe for the program (when it is likely to be proposed and when it is likely to be implemented, if approved by the UNC Board of Governors):**
 - Intent to Plan: Fall 2009
 - Projected Implementation: Fall 2010

6. **Current or planned interaction with other campuses (such as joint or consortia programs):** FSU will explore options for dual enrollment agreements with community colleges.

7. **Mode or modes of delivery of the program:** A combination of face-to-face and online courses.

8. **Brief rationale for the program (including, where relevant, reference to UNC Tomorrow and high-need areas the program would serve):** This program "addresses the shortage of science and math teachers, especially in rural areas" as recommended in 4.3.2 of the UNC Tomorrow report by preparing highly qualified teachers of the physical sciences in the southeastern region of N.C. where a critical need exists. It also addresses UNC Tomorrow 4.3.1, which is to "improve the quantity, quality, and geographic distribution of public school teachers." Because a large percentage of students who attend FSU are from the southeastern region of NC, the intent is that these students will return to teach in their home areas. This program also addresses 4.1.1. of the UNC Tomorrow report to prepare students "for successful professional and personal lives in the 21st century, equipping them with the tools they will need to adapt to the ever-changing world" through emphasis on science, technology, engineering, and mathematics (STEM). Two components of the Physical Science Education program address this concern—inclusion of teaching methods that embody the best practices of teaching (active learning, collaborative teams, problem-based learning, etc.) and faculty development opportunities for in-service teachers in the region, strengthening them in their content areas they are teaching and in instructional methods using active learning, collaborative teams, problem-based learning, and other similar methods.

1. **Name of Degree Program:** Bachelor of Science (B.S.) in General Engineering
2. **CIP Category:** Engineering
3. **Level of Program:** Bachelor's

4. **Brief Description of the Program:** The General Engineering Program will provide a means for students to complete a B.S. degree in one of the engineering disciplines by participating in a 2+2 or 3+2 articulation agreement with the Schools of Engineering at either North Carolina State University, North Carolina A&T State University, or UNC-Charlotte. Preparatory courses will be offered at FSU, and the professional engineering courses will be completed at the school honoring the articulation agreement.

5. **Timeframe for the program (when it is likely to be proposed and when it is likely to be implemented if approved by the Board of Governors):**
 - Intent to Plan: Spring 2009
 - Projected implementation: Fall 2010

6. **Current or planned interaction with other campuses (such as joint or consortia programs):** We have held exploratory sessions with representatives from NCSU, NC A&T, and UNC-C, and we have received positive interest in developing a partnership with each by pursuing either a 2+2 or 3+2 dual enrollment agreement with them.

7. **Mode or modes of delivery of the program:** Combination of face-to-face and online delivery

8. **Brief rationale for the program (including, where relevant, reference to UNC Tomorrow and high- need areas the program would serve):** The General Engineering Program addresses UNC Tomorrow recommendation 4.1.1, "UNC should prepare its students for successful professional and personal lives in the 21st century." According to data obtained from the National Science Foundation the number of engineering fields has grown and is predicted to continue to grow while the number of students entering the engineering fields is declining. This will provide an opportunity particularly for minority and underrepresented populations to enter a growing job force.

The General Engineering Program will also address UNC Tomorrow recommendation 4.1.3, partnerships between UNC campuses. One of the cornerstones of the program is the articulation agreements between FSU and three other UNC campuses. These agreements will be a vital part of the program.

This program will also address UNC Tomorrow recommendation 4.2, Access to Higher Education. FSU has a large population of non-traditional students who enter from the general population of the region and from the military personnel and their families from Ft. Bragg. Low income residents and persons with disabilities in southeastern NC will benefit from this program because they can complete at least half of the degree program while keeping the cost of their education lower by being close to their homes. As an HBCU, the program should attract more males, particularly minority males, to the engineering profession and, thus, positively affect one of the strategic goals of UNC Tomorrow and FSU.

1. **Name of Degree Program:** Bachelor of Science (B.S.) in Actuarial Science
2. **CIP Category:** Mathematics
3. **Level of Program:** Bachelor's

4. **Brief Description of the Program:** The proposed B.S. degree program in Actuarial Science will prepare students for actuarial careers by concurrently preparing them for exams set by the Society of Actuaries and Casualty Actuarial Society. The program will require students to complete 121 credit hours of approved courses, with a minimum of 41 semester hours in mathematics and statistics. In addition to University College core curriculum requirements, the program will also include courses in economics, finance, accounting, management information systems, and computer science.

5. **Timeframe for the program (when it is likely to be proposed and when it is likely to be implemented if approved by the Board of Governors):**
 - Intent to Plan: Fall 2009
 - Projected implementation: Fall 2011

6. **Current or planned interaction with other campuses (such as joint or consortia programs):** We intend to explore the possibility of a dual enrollment agreement with Fayetteville Technical Community College.

7. **Mode or modes of delivery of the program:** Combination of face-to-face and online delivery

8. **Brief rationale for the program (including, where relevant, reference to UNC Tomorrow and high- need areas the program would serve):** This proposed program addresses UNC Tomorrow recommendation 4.1.1, "UNC should prepare its students for successful professional and personal lives in the 21st century." According to the U.S. Labor Department, the number of positions in actuarial science will increase by 24% over the next decade. Salaries for entry level positions are much higher than many other professions. The employment opportunities and salaries in the actuarial sciences will make this degree program attractive to the residents of this region, especially the news residents who will come as a result of BRAC.

The program also serves UNC Tomorrow recommendation 4.2.5: "UNC should increase the educational attainment of all underrepresented populations, including African-American male and Hispanic students." The program in Actuarial Science will be a state-of-the-art and academically competitive program. Only a limited number of universities in the U.S. offer this program. The proposed B.S. program in Actuarial Science at the Fayetteville State University will be the first program offered by a historically black university in the UNC system. This competitive program at FSU will produce minority graduates in Actuarial Science who will have high levels of educational achievements and be globally competitive.

1. **Name of Degree Program:** Bachelor of Arts (B.A.) in Digital Arts
2. **CIP Category:** Art / Art Studies
3. **Level of Program:** Bachelor's
4. **Brief description of the program:** The B.A. in Digital Arts program will prepare graduates for careers in the communications and entertainment industries and other companies that require integrated media. Graduates will be prepared to work in entertainment production, animation, modeling, interactive application design, user interface design, product design, game development, audio and video editing, web design, industrial visualization, and other similar areas. In addition to developing technical skills, graduates will be able to create meaningful artistic experiences through the thoughtful and creative use of ideas, concepts, and contemporary technologies. The Digital Arts program will require 120 credits and will include coursework in traditional drawing, illustration, sculpture, graphic design, 3D modeling, animation, video, sound design, story development, storyboarding, storytelling, and media integration. All majors will develop the graphics strategies, concepts, and languages necessary to develop robust web designs based on solid interface understanding and integration. Majors will select one or more areas of concentration, including 3D Animation, Modeling, Game Development, and Entertainment Design.
5. **Timeframe for the program (when it is likely to be proposed and when it is likely to be implemented if approved by the Board of Governors):**
 - Intent to Plan: Spring 2009
 - Projected implementation: Fall 2010
6. **Current or planned interaction with other campuses (such as joint or consortia programs):** FSU has begun discussions with Fayetteville Technical Community College about developing a 2+2 agreement.
7. **Mode or modes of delivery of the program:** Combination of face-to-face and online delivery
8. **Brief rationale for the program (including, where relevant, reference to UNC Tomorrow and high need area the program would serve):** This proposed program addresses UNC Tomorrow recommendation 4.1.1, "UNC should prepare its students for successful professional and personal lives in the 21st century," and 4.4.4, "UNC should promote the arts and cultural enrichment in all regions of the state." One of the hallmarks of the global economy is the expansion of digital technologies and integrated media in communication, web design, movies, television, advertising, and many other related areas. The demand for individuals with expertise in digital arts is rapidly increasing. With the influx of new residents and businesses in southeastern North Carolina as a result of BRAC, it is anticipated that the need for individuals with digital art expertise will increase.

1. **Name of Degree Program:** Bachelor of Arts (B.A.) in Interdisciplinary Studies
2. **CIP Category:** Interdisciplinary Studies
3. **Level of Program:** Bachelor's
4. **Brief Description of the Program:** This program is designed specifically for adult learners who hold a significant number of hours of transfer credits and desire to earn a bachelor's degree. The program will provide students the flexibility to develop an individualized degree plan that is consistent with their previous educational experiences and career goals. This program will require a minimum of 120 semester credits, including 45 for the core curriculum, 75 credits in the major program, including up to 24 credits in electives. All majors will be required to complete 12 credits that will focus on advanced-level skills in communication, reading, quantitative literacy, and inquiry. The core courses for the major will help students develop the competencies that are vital to success in all professions in the global economy and will be developed throughout the program. Students will fulfill remaining major requirements by developing an individualized degree plan in consultation with an advisor. The student and advisor will select courses from one or more disciplines that serve their personal and professional goals. A senior capstone course required of all majors will enable students to integrate their knowledge into a senior project that will also require students to demonstrate advanced skills in communication, reading, quantitative literacy, and inquiry.
5. **Timeframe for the program (when it is likely to be proposed and when it is likely to be implemented if approved by the Board of Governors):**
 - Intent to Plan: Spring 2009
 - Projected implementation: Fall 2010
6. **Current or planned interaction with other campuses (such as joint or consortia programs):** FSU would work with community colleges to facilitate transition to FSU.
7. **Mode or modes of delivery of the program:** Combination of face-to-face and online delivery
8. **Brief rationale for the program (including, where relevant, reference to UNC Tomorrow and high- need areas the program would serve):** This program will serve UNC Tomorrow recommendation 4.2.1, "UNC should increase access to its educational programs – including academic courses at all levels, degree programs, and certificate programs for traditional student, non-traditional students, and lifelong learners." This program facilitates degree completion for students who have accumulated a significant number of credits, but have not yet earned a degree. The flexibility of the curriculum broadens the student's base of knowledge, allows the adult learner to shape his or her own education, and makes a four year degree more accessible to community college transfer students, military personnel and their dependents, and any individuals for whom a baccalaureate degree is essential for career advancement. This proposed program also addresses UNC Tomorrow recommendation 4.1.1, "UNC should prepare its students for successful professional and personal lives in the 21st century." With its emphasis on advanced skills in communication, reading, quantitative literacy, and inquiry, the program will focus on skills that have been identified as especially important for success in the global economy.

Proposed Graduate Programs

1. **Name of Degree Program:** Master of Education (M.Ed.) in Curriculum and Instruction - Online
2. **CIP Category:** Education
3. **Level of Program:** Master's
4. **Brief Description of the Program:** The proposed M.Ed. degree program in Curriculum and Instruction is for the education curriculum specialist. Through strengthened "collaborative partnerships," it is designed to provide professional growth of teacher practitioners and school executives who aspire to become curriculum developers as well as instructional leaders. The program will be based on a framework that includes a cyclical process of inquiry, reflection, application, evaluation, and additional reflection. The proposed M.Ed. in Curriculum and Instruction will be aligned to the professional teaching standards for school executives presented by the North Carolina Department of Public Instruction.
5. **Timeframe for the program (when it is likely to be proposed and when it is likely to be implemented, if approved by the UNC Board of Governors):**
 - Intent to Plan: Fall 2009
 - Projected Implementation: Fall 2010
6. **Current or planned interaction with other campuses (such as joint or consortia programs):** None planned at present, but will be considered.
7. **Mode or modes of delivery of the program:** Online delivery
8. **Brief rationale for the program (including, where relevant, reference to UNC Tomorrow and high-need areas the program would serve):** To meet UNC Tomorrow recommendation 4.2.1, "to increase access to educational program," FSU proposes to develop a Master of Education degree program in Curriculum and Instruction to be offered through online modality. FSU is responding to not only the data from the UNC Tomorrow report, which posits that "72% of respondents ranked increasing distance education and online course offerings as the number one way in which UNC could have the greatest impact on their community" (p. 15), but also to information presented by the BRAC Regional Task Force, which reports that "over the next five years Ft. Bragg will see additional gains of over 20,000 military and civilian personnel and their families." FSU is committed "to provide education resources to all military personnel and dependents to assure their global competitiveness and personal and professional success in the 21st century." In a discussion with FSU representatives, the Department of Defense indicated a need for a non-specialized/grade-level graduate degree program in education. This M.Ed. in Curriculum and Instruction - Online is in response to these data. A review of Departments/Schools/Colleges of Education in the UNC system revealed that there is a gap in online programs geared towards the education curriculum specialist.

1. **Name of Degree Program:** Master of Public Administration (MPA)
2. **CIP Category:** Public Administration
3. **Level of Program:** Master's
4. **Brief Description of the Program:** This proposed program will prepare graduates with the advanced knowledge and skills required to lead public organizations and agencies as they strive to meet the challenges of the 21st century. The program will consist of a common curriculum that will meet accreditation standards of the National Association of Schools of Public Affairs and Administration. The common curriculum will also address the knowledge and "soft-skill" for global competitiveness such as honesty and integrity, professionalism and work ethic, critical thinking and reasoning, ability to use technology, written communication, innovative thinking and creativity, teamwork, gathering and organizing information, cultural awareness and understanding, and knowledge of foreign language. Majors will select from concentrations such as: Disaster Management, Non-Profit Management, and Public Financial Management. Students will also be required to complete internship experiences that will require them to apply their knowledge and skills in a specific setting.
5. **Timeframe for the program (when it is likely to be proposed and when it is likely to be implemented if approved by the Board of Governors):**
 - Intent to Plan: Fall 2009
 - Projected implementation: Fall 2010
6. **Current or planned interaction with other campuses (such as joint or consortia programs):** The university will explore options for collaborations with other institutions.
7. **Mode or modes of delivery of the program:** Combination of face-to-face and online delivery
8. **Brief rationale for the program (including, where relevant, reference to UNC Tomorrow and high- need areas the program would serve):** The proposed MPA program will address UNC Tomorrow recommendation 4.1.1 by developing graduates who are well prepared for professional careers in the 21st century. All graduates will demonstrate the "soft skills" and knowledge that are essential for global competitiveness. Each of the concentrations will provide special knowledge in an area of critical need in the 21st century. The MPA program will provide an excellent educational opportunity for residents new to the state as a result of BRAC, especially military personnel seeking career advancement addressing UNC Tomorrow 4.2.1. Graduates of the program will work effectively as leaders in public organizations who can help guide economic transformation of communities in southeastern North Carolina addressing UNC Tomorrow 4.4.3.

1. **Name of Degree Program:** Master of Arts (M.A.) in International Studies
2. **CIP Category:** Multi/Interdisciplinary Studies
3. **Level of Program:** Master's

4. **Brief Description of the Program:** The proposed M.A. degree in International Studies is a multidisciplinary program, which will enable students to acquire knowledge of international relations, sustainable development, international business, political economy, inter-cultural values, and techniques in conflict management. Students will also gain competency in the analysis and study of selected world areas, namely Africa, Asia, Europe, Latin America, and the Middle East. Students will have the opportunity to complete internships in many international settings.

5. **Timeframe for the program (when it is likely to be proposed and when it is likely to be implemented, if approved by the UNC Board of Governors):**
 - Intent to Plan: Fall 2009
 - Projected Implementation: Fall 2010

6. **Current or planned interaction with other campuses (such as joint or consortia programs):**

The program will promote increased partnership with other international universities through its student exchange programs/study abroad component. The program will attract Fulbright Fellows, as well as Foreign Language Teaching Assistants to teach and conduct research (UNC Standard 4.1.3).
7. **Mode or modes of delivery of the program:** Combination of face-to-face and online delivery
8. **Brief rationale for the program (including, where relevant, reference to UNC Tomorrow and high-need areas the program would serve):**

In order to meet North Carolina's Global Readiness challenges (UNC Tomorrow 4.1), FSU intends to educate its students to succeed in the 21st century through the proposed international studies program, by sharpening the skills of its students through exposure to a cross-cultural curriculum that emphasizes foreign languages, technological competence, and global awareness. Through this program, FSU intends to enhance access to higher education in the areas of international languages and culture to underserved ethnic minority groups (African Americans, Hispanics and Native Americans), regions, and communities in North Carolina (UNC Tomorrow 4.2.1). The proposed program will be available to healthcare professionals, policy makers and citizens with foreign language skills in select languages (UNC Tomorrow 4.5); will enable FSU to assume leadership in addressing energy and environmental issues in North Carolina (UNC Tomorrow 4.6) and through the provision of research conferences and workshops (UNC Tomorrow 4.7); and faculty and researchers will be able to serve as community resource persons and consultants to constituents on critical issues of energy, sustainable development, and the environment (UNC Tomorrow 4.7.3).

1. **Name of Degree Program:** Master of Arts (M. A.) in Environmental Studies
2. **CIP Category:** Environmental Science/Studies
3. **Level of Program:** Master's

4. **Brief Description of the Program:** This proposed program will provide students with a comprehensive knowledge of human interaction with the environment and the policy implications of such interaction. Graduates will develop specialized and technical knowledge about the environmental impact of such factors as population growth, high-density urbanization, industrial expansion, new and expanding technologies, resource sustainability, and other similar factors. Graduates will also be prepared to apply their technical knowledge of environmental issues to the evaluation and development of governmental regulations and public policies aimed at protecting the environment and sustaining natural resources.

5. **Timeframe for the program (when it is likely to be proposed and when it is likely to be implemented if approved by the Board of Governors):**
 - Intent to Plan: Fall 2009
 - Projected implementation: Fall 2011

6. **Current or planned interaction with other campuses (such as joint or consortia programs):** None are planned at this time; however, efforts will be made to collaborate with other UNC institutions as appropriate.

7. **Mode or modes of delivery of the program:** Combination of face-to-face and online delivery.

8. **Brief rationale for the program (including, where relevant, reference to UNC Tomorrow and high need area the program would serve):** This proposed program addresses UNC Tomorrow recommendation 4.6, "UNC should assume a leadership role in addressing the state's energy and environmental challenges." FSU seeks to develop broadly trained individuals who can provide leadership in addressing North Carolina's energy and environmental challenges. Employment opportunities will be created by a continuing general awareness of the need to monitor the quality of the environment, to interpret the impact of human actions on our ecosystems, and to develop sound policies and strategies to restore and conserve the ecological systems. Reports at the national and state levels indicate that the demand for broadly trained environmental specialists will grow at a faster rate than other occupations. The southeastern region has experienced special environmental challenges with water and land management in recent decades. Specialists in environmental studies will be especially needed in southeastern North Carolina to help address the energy and environmental challenges created by the influx of approximately 40,000 new residents as a result of BRAC. The degree program will be especially attractive to retired military personnel seeking to return to the civilian workforce.

- 1. Name of Degree Program:** Doctorate (Ph.D.) in Clinical/Counseling (Child/Family: Rural Mental Health)
- 2. CIP Category:** Psychology
- 3. Level of Program (bachelors, masters, doctoral):** Doctoral

- 4. Brief description of the program:** This will be a clinical program committed to excellence in clinical training from a clinical science perspective. The goals are to educate students in scientific principles and empirically supported theoretical models that may guide the study and treatment of psychopathology, as well as the study of psychological factors related to child/family health and well-being in a rural setting. Internships and practicum experiences will be conducted in rural areas throughout North Carolina.

- 5. Timeframe for the program (when it is likely to be proposed and when it is likely to be implemented if approved by the Board of Governors)**
 - Intent to plan: Fall 2010
 - Projected Implementation: Fall 2012

- 6. Current or planned interaction with other campuses (such as joint or consortia programs):** None currently, but the university will explore collaboration possibilities.

- 7. Mode or modes of delivery of the program:** Face-to-face classroom instruction, seminars, practicum, and internship placement.

- 8. Brief rationale for the program (including, where relevant, reference to UNC Tomorrow and high need areas the program would serve)** This proposed program addresses UNC Tomorrow recommendation 4.4.2 through FSU's regional proximity and service to rural and underserved areas of the state and 4.5.1, which calls on UNC to improve health and wellness in the state. The National Advisory Committee on Rural Health and Human Services, which advises the U.S. Secretary of Health and Human Services, has reported the mental health care delivery system is especially fragile in rural areas. Primary care doctors who may not have adequate training in mental health care shoulder the responsibility of providing the majority of mental health services in rural areas. Several studies have demonstrated that mental health professionals are differentially distributed in rural and urban areas, with psychiatrists and Ph.D.-level psychologists tending to practice in urban and suburban areas, leaving mental health professionals with master's level preparation or less as the most readily available mental health providers in most rural areas (Hartley, Bird, & Dempsey, 1999). For example, the supply of psychiatrists is 14.6 per 100,000 in urban areas as compared with 3.9 per 100,000 in rural areas (Hartley et al., 1999).

Certificate Programs

Based on our review of southeastern North Carolina's higher education needs, we at FSU have determined that current and future residents will benefit from certificate programs that provide a specific set of skills that will enhance their career development in high-need areas. All of the programs consist of a limited number of credit hours (9-18), which will require less time for completion than a full degree program. Yet, since all of the certificate programs include credit-bearing courses, completion of such program will facilitate subsequent degree completion.

Undergraduate Programs

Name of Program: Certificate in Cisco Certified Network Associate (CCNA)

Description: Networks are an essential part of business, education, and government and the demand for skilled networking professionals continues to grow. Cisco is a leading supplier of networking equipment and holders of Cisco certifications (e.g., CCNA certified professionals) enjoy average salaries of \$76,000. Upon successful completion of the CCNA certificate program, participants will have the ability to install, configure, operate, and troubleshoot medium-size routed and switched networks. The certificate will require the following courses: 1) CSC270 Intro to Network Basics (CCNA1), 2) CSC271 Routing and Switch Basics (CCNA2 and CCNA3), and 3) CSC372 Intro to WAN (CCNA4). For MIS and Computer Science majors, the three courses can serve as electives. Individuals may complete the certificate as special visiting students if they complete an admission test.

Method of Delivery: Face-to-face initially with subsequent online delivery

Implementation Date: Spring 2010

Name of Program: Certificate in Oracle PL/SQL

Description: Oracle provides a highly sought after and versatile certification. The Oracle PL/SQL Developer Certified Associate demonstrates expertise in building database-centric internet applications for Oracle databases. Upon successful completion of the Oracle PL/SQL certificate program, participants will be able to retrieve, restrict, manipulate data, customize output, and solve queries. Additionally, participants will be able to create PL/SQL procedures, create packages, database triggers and functions, and manage subprograms and dependencies. The certificate program for Oracle PL/SQL will require the following courses: 1) Advanced SQL, 2) Advanced PL/SQL, and 3) a Senior Project Course (Certification Exam Review). For MIS and Computer Science majors, the three courses can serve as electives. Individuals may complete the certificate as special visiting students if they complete an admission test.

Method of Delivery: Face-to-face initially with subsequent online delivery

Implementation Date: Spring 2010

Graduate Programs

The following graduate certificate programs are designed to meet projected needs in the region as a result of BRAC. Many of the new residents will already have earned bachelor's degrees and will be seeking educational opportunities to enhance their career development.

Name of Program: Advanced Certificate in Human Resource Management (HRM)

Description: Human Resource Management is an integral and challenging aspect of all organizations. Over the last several decades, HRM has transitioned from an administrative task orientation to a competency-driven strategic necessity. The current economic environment coupled with the influx of additional troops and civilians to Ft. Bragg indicates a growing need for the astute management of human resources. The proposed HRM certificate program is intended for individuals who currently work in the area of human resources, hold a baccalaureate degree, and need further professional training. The curriculum prepares participants to take the certification examinations for each of the six specialized areas as designated by *The Human Resource Certification Institute* (HRCI). The courses in the certificate program may be transferred into the MBA Program. The certificate program will require the addition of six elective graduate courses: 1) Strategic Human Resource Management, 2) Workforce Planning and Employment, 3) Workforce Training and Development, 4) Workforce Compensation, 5) Employee and Labor Relations, and 6) Risk Management.

Method of Delivery: Face-to-face initially with subsequent online delivery

Implementation Date: Fall 2010

Name of Program: Certificate in Project Management

Description: Top executives report that project management is becoming increasingly important to companies. A wide range of industries use project managers (PMs) to oversee a variety of strategic tasks that range from the launching of new products to leading restructuring efforts. Based on data collected by *payscale.com*, the median salary for a Certified Associate in Project Management (CAPM) is \$62,368 while a Project Management Professional (PMP) typically earns \$93,146. Upon the completion of the program, participants will have expertise in project management processes such as initiation, planning, executing, controlling and closing a project. Additionally, they will have greater understanding of human resource, communication, and risk management issues within the context of project management. The certificate program will require revisions to four existing MBA project management courses to prepare participants for the Project Management Institute certification exam. The courses may be applied to the MBA Program.

Method of Delivery: Face-to-face initially with subsequent online delivery

Implementation Date: Fall 2010

Name of Program: Certificate in Supply Chain Management

Description: Supply chain management is recognized as a strategic function equal in importance to other functional areas of the organization. The Certified Supply Chain Professional (CSCP) and Certified Professional in Supply Management (CPSM) are the two leading certifications in the SCM field. Both certifications target graduate students and individuals with business or military work experience. The average salary for holders of the CPSM certification is \$90,302 while the median salary for CSCP certificate holders is \$82,171. The following topics form the core of the CPSM exam: contracting and negotiations, social responsibility and supplier relationship management, forecasting, logistics, materials and inventory management, product development, and strategic sourcing. Upon completion of the certificate program, participants will be able to recognize and analyze specific supply chain situations and opportunities and select the appropriate approaches, tools, techniques, and technologies. Participants will also be well equipped to take either the

CSCP or CPSM exams. The certificate program for supply chain management will require revisions to two existing graduate courses and the addition of two new courses. The two new courses are: 1) SCM620- Operations, Planning, and Logistics in SCM and 2) SCM630- Customer and Supplier Relationships Management. The courses in the certificate program may be transferred into the MBA Program.

Method of Delivery: Face-to-face initially with subsequent online delivery

Implementation Date: Fall 2009

Name of Program: Certificate in Professional Writing

Description: This graduate certificate would be designed to help those professionals who wish to improve their writing skills. The target audience includes military officers, public officials, business personnel, and others with a bachelor's degree. Many graduates discover that their employment requires an extensive amount of writing for which their undergraduate degree did not fully prepare them. The program would enhance their writing and work performance. The program could also assist English teachers in both K-12 schools and community colleges to improve their instruction. Even many college professors may find the certificate helpful, especially if English is their second language. Finally, this certificate program may be chosen by those who wish to continue on in graduate or law school, but recognize that their writing skills are not sufficient for ensured success. The certificate will require 12 graduate credits that may be applied to the M.A. in English degree program.

Method of Delivery: Face-to-face

Implementation Date: Fall 2010

Name of Program: Applied Statistics

Description: A certificate in Applied Statistics would help graduates from the social and natural sciences advance their statistical skills. Many of these graduates find that their work requires them to both interpret and produce statistical data for which their undergraduate degree may not have been sufficient. It would also help many of these graduates to advance on to a master's degree and doctoral degree program and this certificate could greatly enhance their chances for admission and success into doctoral programs. Most of these students would have had only one undergraduate statistics course and this certificate could give them the skills to be researchers in a variety of areas. The graduate certificate will require 12 graduate credits in statistics.

Method of Delivery: Face-to-face initially with subsequent online delivery

Implementation Date: Fall 2010

Name of Program: Certificate in Criminal Justice

Description: As the field of criminal justice education and practice continues to expand at all levels, there is a need for professionals to obtain greater knowledge in the field. The certificate will be especially beneficial to criminal justice practitioners, social workers, and counselors who may need to enhance undergraduate degrees by expanding the knowledge base and broadening their understanding in their respective fields. The certificate program will provide these individual with a firm grasp of current scholarship that is essential for successful grant writing. High school and community college criminal justice teachers will form another target audience. Many high school teachers are underprepared to teach criminal justice. Moreover, many rural community colleges must rely on teachers in the field who are not qualified by SACS criteria because they lack 18 hours of graduate credits in criminal justice. The certificate program will require 18 graduate credits in criminal justice.

Method of Delivery: Face-to-face initially with subsequent online delivery

Implementation Date: Fall 2009

Other Programs Being Considered

In addition to programs already approved, military outreach through distance education learning will include the proposed M. Ed. degree in Curriculum and Instruction, as well as a M.A. in Security Studies, which is now being considered. Feasibility studies are also underway for Certificate programs in Security Studies, Intelligence Studies, and in Homeland Security/Emergency Management. These programs would enable FSU to meet the academic needs of military personnel who are relocating to Ft. Bragg under BRAC and also broaden career opportunities for underrepresented populations in the state.