

University of North Carolina Tomorrow



UNC Tomorrow Response Plan

North Carolina Agricultural and Technical State University

Phase 1 – May 2008



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UNC Tomorrow Response Plan – Phase I

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North Carolina A&T State University UNC Tomorrow Response Plan

Introduction

NC A&T State University is a learner-centered community that develops and preserves intellectual capital through interdisciplinary learning, discovery, engagement, and operational excellence. The University is committed to fulfilling its fundamental mission through exemplary undergraduate and graduate instruction, scholarly and creative research, and effective public service.

As a doctoral/high research activity institution, according to the Carnegie Foundation, the University strives to continue to significantly expand its research and PhD programs, especially in engineering, science, technology and agriculture and environmental sciences. The University also will focus on the College of Engineering becoming a premier program in the nation. UNC Tomorrow presents opportunities for NC A&T to achieve these goals. As the University revises its strategic plan, UNC Tomorrow will serve as a foundation, and its findings and recommendations will be integrated into this process. As the University develops its strategic plan, other needs and opportunities consistent with the mission of the University will be given due consideration.

The purpose of the University of North Carolina Tomorrow Initiative was to determine how the University of North Carolina can respond more directly and proactively to the 21st century challenges facing North Carolina both now and in the future through the efficient and effective fulfillment of its three-pronged mission of teaching, research and scholarship, and public service. The outcomes of this Initiative will guide and shape current and future priorities, resource allocations, existing and future programs, and strategic plans and missions of the University of North Carolina, its 17 constituent institutions and its affiliated entities. The goal is to ensure that UNC not only becomes more proactive and responsive to the needs of our state, but remains so in the years to come as the people of North Carolina continue to confront the myriad challenges of the rapidly changing, knowledge-based global economy and environment of the 21st century.

In response to the major findings and recommendations identified in the UNC Tomorrow Commission Final Report, a team of individuals were appointed at North Carolina A&T State University (NC A&T) to develop a "UNC Tomorrow Response Plan". This Plan was accomplished under the leadership of Dr. Janice Brewington, Provost and Vice Chancellor for Academic Affairs. Drs. Kenneth Murray and James Gooch facilitated the process with an 18-member Response Team and 9 Work Groups with 8 to 14 members each. (See Appendix A) Each of the Work Groups was assigned a UNC Tomorrow major finding and associated recommendations with the responsibility to develop the University's Response Plan specific to the finding and recommendations. In developing their Response Plans, the Work Groups solicited input from administrators, faculty, staff and students. The Response Team, with members representing all of the administrative and academic units across the campus, and chairs of each Work Group were charged with the overall responsibility of collecting the draft Response Plans generated by the Work Groups and consolidating them into a University UNC Tomorrow Response Plan for submission to Chancellor Stanley Battle and his Cabinet and the University's Board of Trustees for final approval before submission to UNC-GA by the May 1, 2008 deadline.

The University's UNC Tomorrow Response Plan, by sections, identifies how NC A&T State University is prepared to respond to and implement the Commission's findings and recommendations addressing the challenges facing North Carolina now and in the future. To effectively respond to the needs of North Carolina now and in the future, NC A&T State University is committed to maintaining and increasing high academic standards, the quality of its degree programs, and adding new academic degree programs to ensure graduation of well-educated students prepared for the competitive global economy.

NC A&T State University's UNC Tomorrow Response Plan has categorized the Findings into three levels of priority for the University:

Level One Priorities

- A1. Global Readiness: 21st Century Skills
- A2. Global Readiness: Global Competitiveness
- B. Increasing Access to Higher Education
- C. Improving Public Education

Level Two Priorities

- D. Economic Transformation and Community Development
- G. Outreach and Engagement

Level Three Priorities

- E. Health
- F. Environment

For clarity and understanding, the following the NC A&T State University's Response Plan maintains the original order of the UNC Tomorrow Findings.

Executive Summary of Priorities

The key focus of the UNC Tomorrow Response Plan development process was to identify new programs, initiatives and activities needed to respond to the major findings and associated recommendations. Aligned with each of the major findings and set of associated recommendations a large number of new programs, initiatives and activities were identified. A process was used to determine which of the new programs, initiatives and activities should be given the highest priority for the University. That process concluded that there were eleven (11) priorities that the University should focus its efforts upon in response to the UNC Tomorrow major findings and recommendations. A summary of each of the priorities is provided below organized by major findings. The details of each of the priorities can be viewed in the major finding sections of this NC A&T UNC Tomorrow Response Plan.

Level One Priorities

A1. Global Readiness: 21st Century Skills

Given the strengths and alignments of existing and emerging programs, initiatives and activities the decision was that NC A&T does not really need any new programs, initiatives or activities to respond to the Global Readiness: 21st Century Skills.

A2. Global Readiness: Global Competitiveness

Priority 1. Create an Interdisciplinary Center for Global Affairs and Studies. The Center will provide administrative leadership and focus to efforts to globalize the campus. Faculty will be empowered to conduct interdisciplinary research on global issues that will inform and strengthen the curriculum. They will also cooperate on research with faculty in the UNC system, nationwide and globally, and will compete for projects that will provide the funding support for teaching and research for campus globalization initiatives. Support faculty development and student study abroad. Issues of global communication and outreach would be addressed by establishing a firm financial base supporting immersion programs, mini-mesters, short-term experiences and other programs that would improve language skills, make connections across international boundaries, and provide expanded research opportunities.

Priority 2. Revise Curricula of Schools and Colleges to Include a Focus on Developing Global Competencies. Emphasis would be on instruction in critical languages, development of service learning curricula with a global focus, and integration of technology to create virtual international projects. At the undergraduate level, a strong UNST global studies cluster would be developed and current courses revisited to improve cross-cultural competencies.

B. Increasing Access to Higher Education

Priority 1. North Carolina African American Male Initiative. NC A&T State University is a robust institution and it has a track record of providing quality education to the community and therefore, it is best positioned to lead the initiative on developing a model of how to attract, recruit, and retain African-American males in higher education. This initiative is designed specifically to reduce the high school dropout rate of African American males which is 22% currently. The initiative will have programs that will target males in

junior high through high school and then college. Further, it is the vision that NC A&T will lead a partnership of both public and private HBCU's in the state for this initiative.

Priority 2. Establish Branch Campuses. There is a high need in North Carolina to create new and expanded degree programs by providing access to North Carolinians. For example, it is anticipated that there will be about 80,000 new students by 2017. Therefore, NC A&T wishes to develop branch campuses to serve the underserved regions of the state, increase its enrollment, and engage the community with its educational products. The intent is to use the community college partnership model in the first instance. This will allow NC A&T to develop Bachelor's and Master's programs on the community college campus.

C. Improving Public Education

Priority 1. Improve the Quantity, Quality, and Geographic Distribution of Public School Teachers in High Need Areas. The shortage of public school teachers is crucial in both North Carolina and nationwide. This shortage affects the preparedness of those who enter the academy, the work force, and the overall economy and society. NC A&T aims to address these shortages, while simultaneously improving the quality of the existing teacher education workforce. Plans that will increase the number of licensed individuals in the teaching profession are being planned, with special emphasis on the high need areas of mathematics, science, and special education. Additionally, plans are underway for working with current teachers to improve their quality.

Priority 2. Develop a Seamless Education Continuum for Pre-K Through Higher Education. The Revisioning Process mandated by the State Board of Education's adoption of 21st century education standards for teacher education programs will enable NC A&T to be a key part of the seamless educational continuum. The process specifically involves developing new programs that meet the needs of the 21st century by working with public schools, community colleges, and the community in a more meaningful way. Each of these stakeholders will be involved in the revisioning of the teacher education programs—from planning to implementation. By working together with partners in education, the seamless education continuum will become a reality and students will be prepared at each level for the next level.

Level Two Priorities

D. Economic Transformation and Community Development

The highest priority programs needed to respond to this UNC Tomorrow major finding and associated recommendations are combined into Section G. Outreach and Engagement under Priority 1. Create A Center For Outreach, Engagement And Economic Development (COEED).

G. Outreach and Engagement

Priority 1. Create a Center for Outreach, Engagement and Economic Development (COEED). NC A&T will establish a Center for integrating outreach, engagement and economic development in an exemplary mix for the expressed purpose of being more directly engaged and connected to the people of North Carolina, its regions and our state as a whole. As the signature program in the Center, "Aggie Solutions" will include five components: University initiatives; tools for success; departmental/unit outreach

plans; an electronic data collection system; and, marketing. In addition, the COEED will have three offices as follows:

- **1A. Office of Service Learning.** The Office of Service Learning will strengthen and expand the service learning components of University Studies and the Office of Career Services and Experiential Learning. Service learning is a major national movement at every educational level, and is a particularly powerful force in NC A&T undergraduate education.
- **1B. Office of University-Community Partnerships.** The Office of University-Community Partnerships conveys the idea of a “communiversity” and will strengthen and expand the University programs to assist and partner with local and statewide community based organizations and agencies, including schools and community colleges. This Office connects the academic life of the university to the community.
- **1C. Office of Economic Development.** The Office of Economic Development will develop and implement an economic development plan and coordinate the University’s community and economic development initiatives, programs and activities at NC A&T.

Priority 2. Establish a NC A&T Research Foundation. Establish a NC A&T Research Foundation with the assistance of the UNC Office of the President for more effective commercialization of technology, management of new venture creation and investment and expansion of corporate and federal contract opportunities.

Level Three Priorities

E. Health

Priority 1. Increase the Number of Health Graduates in the Workforce, Especially Nurses. Initiatives to increase the number of health professionals in the work force, especially nurses, are essential to meeting the needs in North Carolina. Degree programs are being proposed to produce more nurse educators and facilitate increasing the enrollment in NC A&T School of Nursing. A systematic recruitment process will be implemented to attract second degree students, transfer students from community colleges and other institutions, and licensed practical nurses. Efforts will be made to attract more doctoral prepared faculty to the School of Nursing program, and to ensure that the current faculty members have the teaching skills necessary to prepare graduates appropriately. The recently initiated high fidelity simulation into the experiences of students will be expanded as rapidly as possible to enhance the clinical experiences currently available and allow faculty members to control the learning environment to a greater extent.

Priority 2. Initiate an Employee/Student Wellness Program. Seven strategies are outlined to accomplish this goal. We should develop a Center for Fitness and Wellness to coordinate all healthcare related programs and projects throughout the campus. The Center would serve as a clearinghouse to ensure that programs are tailored to address the major healthcare needs of the campus community. Additionally, coordination of health related activities would enhance the activities that currently exist.

F. Environment

Priority 1. Establish an Energy Conservation Program. This program will educate the faculty, staff, and students on the importance of conserving energy in all the operations of the University. This will include reducing the carbon footprint of our operations and developing a better understanding of how our actions affect climate changes.

Priority 2. Create a “Green” Campus. The “Green Campus” will include physical recycling programs and educational programs about sustainability.

In summary, in addition to the new programs, initiatives and activities highlighted above, the UNC Tomorrow Response Plan development process implemented at NC A&T identified a host of existing programs, initiatives and activities across campus that are aligned with the major findings and associated recommendations in the UNC Tomorrow Commission Final Report. The overall assessment concluded that given the strengths of existing programs, initiatives and activities, NC A&T is well positioned to successfully move forward with the implementation of the 11 key priorities summarized above in the order of our Priority Levels defined above.

For clarity and understanding, the following the NC A&T State University’s Response Plan maintains the original order of the UNC Tomorrow Findings.

A1. Global Readiness: 21st Century Skills North Carolina A&T State University

UNC Tomorrow

4.1 Our Global Readiness

Major Finding: *UNC should educate its students to be personally and professionally successful in the 21st century and, to do so, should enhance the global competitiveness of its institutions and their graduates.*

Recommendation:

4.1.1. *UNC should prepare its 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.*

NC A&T State University Global Readiness: 21st Century Skills

A. Executive Summary

North Carolina A&T State University (NC A&T) is well on the way toward implementing a curriculum that promotes global readiness in its students. The development of the University Studies general education curriculum provides the prerequisite structure for student learning related to global readiness. The following tasks have yet to be completed: the completion of the Division of University Studies with regard to faculty positions, space, and other resources needed to meet its goals; the integration of the general and major education curricula consistent with achieving globally ready students; and, developing a culture of assessment at NC A&T that allows the institution to maintain its current momentum and anticipate new global demands.

B. Existing Programs, Initiatives and Activities

Fortunately, NC A&T anticipated these needs when it engaged in a systemic review of its general education curriculum beginning in 2002. The process allowed our campus to emerge with a general education core curriculum (entitled University Studies (UNST), the 17 learning objectives featured in all UNST courses can be found at <http://www.ncat.edu/~univstud>. The general education core consists of 5 foundation courses (13 credits), 4 theme cluster courses (12 credits), 3 major-specified courses (9 credits), and senior capstone courses (1 – 3 credits.)

The revision involved faculty commissions which examined best practices in general education from around the nation. The University Studies core curriculum at NC A&T is designed to provide a framework for critical inquiry. It is fully interdisciplinary and serves as a foundation for continuing academic development and life-long learning. Through discovery, inquiry, analysis, and application, the core curriculum promotes broad-based critical-thinking skills, effective written and oral communication of ideas, appreciation for diverse cultures, and commitment to ongoing civic engagement and social responsibility.

Strengths of the General Education Program

The program is now considered a national model of what general education should be doing and is already aligned with the UNC Tomorrow recommendations for global readiness (see Table 1.)

Table 1: Alignment of University Studies Learning Objectives with 21st Century Skills Recommendation 4.1.1

<i>Learning Objective</i>	<i>UNST</i>	<i>Foundation</i>
Global Issues	9, 10, 11, 12	The Contemporary World, theme cluster courses
Teamwork skills in diverse groups	2, 4, 10, 11, 14	African American Exp., Critical Writing
Critical Thinking and Analytical Reasoning	3, 4, 5 - 8, 12	All foundation and theme cluster courses
Written and Oral Communication	1 - 4, 10, 11	African American Exp., Critical Writing, theme cluster courses
Information Literacy	1, 3, 4	All foundation and theme cluster courses
Creativity and Innovation	13	All foundation and theme cluster courses
Complex Problem Solving	1, 3, 4, 5 - 8, 9 - 17	All foundation and theme cluster courses
Science and math	5, 6, 7, 8, 16, 17	Analytical Reasoning, theme cluster courses

The only 21st century skills competencies not addressed in University Studies learning objectives are environmental literacy, financial literacy and work ethic and professionalism. However, these global readiness competencies are dealt with in the UNST curriculum. For example, environmental literacy is a key component of both the Contemporary World and Analytical Reasoning courses. Also, an introduction to financial literacy occurs in the Analytical Reasoning course, which has a module devoted to the mathematics of compound interest. Professionalism and work ethic are dealt with both in the behavioral expectations of all students in University Studies classes, as well as in the content of University Studies 100 (the generic freshman experience course, www.ncat.edu/~univstud/ForStudents.htm.) The University Studies requirements of academic integrity, class attendance, course materials, educational etiquette, timely submission of work, and proper email communication with instructors are extra curricular means of teaching professionalism and work ethic. This may be more effective than any course on “work ethic” will ever be. We expect that we will be able to assess this impact by examining freshman to sophomore retention rates. Students who have organically learned professional behavior would be expected to show less attrition due to absence from class and poor work ethic.

Major departments should address specific global readiness objectives depending upon the content of their specific curriculum. We examined program reports from several departments to determine if the global readiness objectives were addressed within the major learning outcomes and whether data was reported on how well the objectives were being achieved by the students. The outcome of this survey is presented below for each of the global readiness outcomes from 13/32 departments from across campus.

Table 2: Learning Objectives in Surveyed Major Departments and Global Readiness

<i>Learning Objective</i>	<i>AS</i>	<i>BE</i>	<i>Bio</i>	<i>C</i>	<i>SoBE</i>	<i>F</i>	<i>H</i>	<i>HP</i>	<i>J</i>	<i>M</i>	<i>P</i>	<i>Ps</i>	<i>S</i>	<i>V</i>
Global Issues	+	+	-	-	+	+	-	-	-	-	-	-	-	+
Teamwork skills in diverse groups	-	-	-	-	+	-	-	?	?	-	?	?	+	+
Critical Thinking and Analytical Reasoning	+	+	+	-	+	-	+	-	-	+	+	+	+	-
Financial Literacy	-	-	-	-	+	-	-	-	-	?	-	?	?	-
Environmental Literacy	-	-	+	-	-	-	-	-	-	-	-	-	-	-
Work Ethic & Professionalism	+	+	-	-	+	-	-	+	+	+	-	+	+	+
Written and Oral Communication	+	+	+	-	+	+	-	+	+	-	+	-	-	+
Information Literacy	+	+	+	+	+	-	-	-	+	?	+	+	+	-
Creativity and Innovation	?	+	?	?	+	-	-	-	-	+	+	+	+	+
Complex Problem Solving	+	+	+	+	+	-	?	-	?	+	+	+	+	?
Science and math	+	+	+	+	-	-	-	-	-	+	+	+	-	-

(+ means explicitly addressed, ? means can be read as addressing, - means not addressed.)

AS = Animal Science, BE = Biological Engineering, Bio = Biology, C = Chemistry,
 F = Foreign Languages, SoBE = School of Business & Economics (4 departments),
 H = History, HP = Human Performance and Leisure Studies, J = Journalism and Mass Communications, M =
 Mathematics, P = Physics, Ps = Psychology, S = Sociology and Social Work, V = Visual and Performing Arts

Assessment of Learning Objectives in General Education

University Studies was designed with assessment of student learning outcomes as an integral portion of the curriculum. The Division of University Studies is committed to a culture of assessment in the general education core curriculum. Formative and summative assessment data has been collected in core courses addressing its learning outcomes since fall 2006. Assessment in all University Studies courses begins with a pre-test to determine student preparedness in the broad areas of oral and written communication, critical thinking/logic, mathematical and statistical reasoning, and scientific literacy (content and method), and global knowledge. The purpose of the pre-test is to establish a base line to determine any value-added during the semester.

For example, in fall 2006 data from our analytical reasoning course were available for 410 of the 950 students who took the pre-test (43.1%). The highest score was a 69% and the lowest a 7%. The mean was 39.41% with a standard deviation of 10.3%. The cumulative frequencies indicated that 90% of students registered scores lower than 50%. This kind of initial assessment gives our instructors crucial knowledge with regard to student readiness to pursue the course's learning objectives. These are compared with post-tests which are given at the end of the course to determine value-added for students in these specific competencies. It is also important to assess learning outcomes utilizing nationally validated instruments. In fall 2007, University Studies participated in the Wabash Assessment of Critical Thinking, conducted by Wabash University. The data from this assessment will be used to evaluate our students compared to national standards and against peer institutions.

Throughout the University Studies courses, formative assessments are used to help determine the effectiveness of instructors and the degree of student learning achieved. Classroom response systems are used to gather immediate feedback from each student. These responses are recorded by the response system and stored in the electronic grade book. Thus, the division has data for every class session that used a classroom response system in academic year 2006-07 and 2007-08. The ability to collect this type of data involving student learning has tremendous potential to improve teaching at NC A&T, and should be

expanded to include every course on this campus. This will allow us to collect accurate and interpretable data related to the 21st century competencies suggested by UNC Tomorrow.

Assessment of Learning Objectives in Major Departments

Our survey indicated the specific global readiness related learning objectives are being assessed unevenly throughout the major departments. In none of the cases we examined was assessment of student learning outcomes being accomplished at the highest standards. One of the difficulties we observed was the fact that most assessments were conducted using localized measures of competence. The limitation of this form of assessment is that data are not available for NC A&T students in comparison to national or international standards. For example, in the sciences, students can take major field assessment tests, which are offered by commercial vendors such as Educational Testing Service. The major field assessment exams allow departments to compare their major's subject knowledge against national as well as peer-institution standards. There are also standardized exams that test objectives such as critical thinking ability. In this way, majors might be able to compare the readiness of their graduates against national populations. Similar tests exist which can be used to measure written communication skills (such as Criterion On-Line writing assessment.)

Obstacles and Barriers to Enhancing Success of the Program

Global readiness objectives are best addressed within the general education curriculum. Therefore, the commitment of a campus to its general education core will have telling influences on the ability of that campus to meet global readiness. Thus far, the largest obstacle preventing University Studies from achieving its mission is the lack of resources devoted to the program. For example, presently University Studies teaches 12.1% of the undergraduate student credit hours (SCH) with only 4.5% of the university's instructors, SCH/INST ratio of 2.77; compared to the College of Arts and Sciences which teaches 52% of the undergraduate student credit hours with 47.4% of the instructional faculty, SCH/INST ratio of 1.09. The ratios of the other schools and colleges are all less than 1.00. This situation suggests two solutions. First, more resources must be provided to University Studies to enhance its ability to deliver the core curriculum. Second, more faculty members in the Colleges and Schools must be given the opportunity to contribute to the general education core.

In addition, the global readiness objectives must be reinforced explicitly in the major departments. In 2005, the University faculty adopted the learning objectives which are utilized in the University Studies general education program. We have already demonstrated that these objectives incorporate the global readiness objectives of UNC Tomorrow. It is incumbent that major departments examine their curricula and learning objectives with an eye to determining how they can better integrate the UNC Tomorrow global readiness objectives into their instruction and assessment. NC A&T does not yet illustrate a culture of assessment. Developing such a culture will be crucial in enhancing the success of the UNC Tomorrow initiatives.

C. New Programs, Initiatives and Activities

There is no need for any new initiatives. NC A&T does not really need any new programs to respond to the global readiness initiative. However, it does need to better coordinate and integrate already existing programs on campus to enhance its ability to produce globally ready students. For example, last year the School of Business and Economics authored a campus-wide grant to the Kaufman Foundation to develop a program to integrate the study of entrepreneurship into the general education curriculum. The grant was well reviewed, but ultimately not funded. This program would have contributed to developing greater financial literacy across all majors, as well as promoting the entrepreneurship option for our students. The

Institute for Waste Management is already engaged in increasing environmental literacy amongst our students. The Institute is attempting to develop a campus-wide recycling program. The largest impediment to this, thus far, is not the desire of students, but the impact on the workload of the facilities staff. A campus wide recycling program, aligned with service learning, and a general education theme-based cluster on recycling and environment, would go a long way toward satisfying the environmental literacy learning objective.

D. Programs, Initiatives and Activities that Should be Combined or Eliminated

Given the nature of the global readiness objectives, the main burden will be on the general education curriculum. Therefore, any movements of University resources that will strengthen that program will enhance the ability of the University to deliver globally ready students. Furthermore, it is essential that major departments do a better job of articulating and assessing the global readiness objectives in their curricula. The survey does not suggest that any program should be eliminated.

E. Implementation Strategies, Plans and Timelines

University Studies, the general education core curriculum, is best suited for implementing the global readiness objectives. Major departments should reinforce specific objectives as appropriate for their discipline. It is recommended that the Division of University Studies' resources be expanded so that they are proportional to its share of the undergraduate student credit hours.

(See attached table for details.)

NC A&T State University

A1. Global Readiness: 21st Century Skills - Implementation Strategies, Plans and Timelines

Priority 1. Complete the Development of The University Studies.

Strategy	Plans	Responsible	Resource	Timeline
Expand of the faculty of the Division of University Studies.	Estimates of optimal instructor/student ratio propose 40 – 50 faculty positions. Also composition of the present faculty is disproportionately junior. In the next 3 years, at least 10 positions should be hired; at least 5 of these should be Associate rank or higher.	Provost, Academic Affairs. University Studies Dean.	This would require \$856,865 in salary + benefits to be expended over 3 years.	Academic years 2008 – 2011.
Establish space for Division of University Studies.	The University is pursuing funds for a new general classroom building which would become the headquarters for the division of University Studies, Honors Program, and Global Studies.	Chancellor. Provost, Academic Affairs. Associate Vice Chancellor for Facilities.	The request for construction of the New General Classroom Building is \$25,000,000.	Academic years 2009 – 2010.
Integration of general and major's curriculum around UNC Tomorrow Global Preparedness.	Major departments need to revisit their learning objectives around UNC Tomorrow global competencies and already agreed upon UNST learning objectives.	Provost, Academic Affairs. Deans and Department Chairs. Departmental Curriculum Committees.	Funds can be appropriated for summer curriculum revision workshops. (At \$7,500 x 7 schools/colleges = \$52,500).	Summer 2009.

Priority 2. Development of a Culture of Assessment.

Strategy	Plans	Responsible	Resource	Timeline
Development of a culture of assessment at NC A&T among faculty, staff and students.	Ongoing efforts to develop and implement campus-wide assessment should be coordinated by the Academy of Teaching and Learning.	Provost, Academic Affairs. Director, ATL. Deans and Department Chairs. Department Curriculum Committees.	Funds can be appropriated for year-long assessment workshops directed by ATL. (\$25,000).	Academic years 2008 – 2010.

Priority 3. Establish an Office of Service Learning

Strategy	Plans	Responsible	Resource	Timeline
Establish a Campus wide Office of Service Learning (matching G. Outreach and Engagement).	The university must establish a campus-wide service learning office. Faculty of all schools and colleges must integrate service learning into their curricula.	Provost, Deans, and Department Chairs. Department Curriculum Committees.	Funds already requested as part of Outreach and Engagement.	Academic years 2008 – 2009.

A2. Global Readiness: Global Competitiveness North Carolina A&T State University

UNC Tomorrow

4.1 Our Global Readiness

Major Finding: *UNC should educate its students to be personally and professionally successful in the 21st century and, to do so, should enhance the global competitiveness of its institutions and their graduates.*

Recommendations:

4.1.2. *UNC programs, especially research programs, should be globally competitive to ensure that they are globally relevant and significant.*

4.1.3. *UNC should promote increased partnerships between its own campuses and international universities and enhance the global awareness of its faculty and students.*

NC A&T State University Global Readiness: Global Competitiveness

A. Executive Summary

Today's global society demands that our graduates be prepared to work with people from all over the world, whether in person or across electronic connections that are binding nations together in the exchange of knowledge and commerce. If they are to be competitive on the world stage, our graduates will need to develop new skill sets, including the ability to understand and adjust to different cultural norms.

FUTURES, North Carolina A&T State University's strategic plan, 2001-2006, set as its leading goal a major expansion of the University's global awareness and participation, mandating "overall high quality, continued competitiveness, and effective involvement of global strategic partners in marketing and delivery of programs and operations" and "to support new and enhanced international service learning programs for faculty and international study and internships for students." Evidence of progress toward the goal of developing a globally oriented University may be seen with global content in an increasing number of courses, international scholars and students in the classrooms, faculty conducting research abroad, and joint agreements with institutions and agencies from Ethiopia to Brazil, China to Malawi.

Among our areas of greatest strength at North Carolina A&T State University (NC A&T), are classes and programs with global content and context that reach students early in their academic careers. We have many such classes at the freshmen and sophomore level, as well as a globally themed University Studies general education program and an International Studies concentration under Liberal Studies. The many international faculty on campus provide global perspectives for students in their daily coursework. We have cooperative agreements, student and faculty exchanges, and ongoing research projects with institutions on every continent. Funding for these initiatives includes major support from U.S government agencies

including Defense, Agriculture, and Education, as well as funding from state and local government and nongovernmental agencies.

Progress toward the UNC system goals of global competitiveness and increased partnerships is limited by three major areas to be addressed: 1) the need for improved functioning and closer ties among divisions including Foreign Languages, the School of Graduate Studies, the International Scholars Office, and the Office of International Programs; 2) the need for funding to underwrite student and faculty development, including travel abroad, and for hosting scholars at NC A&T; and, 3) the need for increased global content in coursework at both the undergraduate and graduate level, as well as improved written and oral language skills among both faculty and students to increase opportunities for research and dissemination of academic work.

B. Existing Programs, Initiatives and Activities

1. The Office of International Programs. The Office of International Programs (OIP) provides a framework upon which to build cooperative ventures with overseas institutions.

▪ Strengths

1. Currently, there are more than a dozen active agreements between NC A&T and universities in Asia, Europe, Africa, and Latin America.
2. Since OIP was established in 2000, NC A&T has sent 200 students abroad and hosted 47 international exchange students on campus. In addition, short-term summer language programs such as the Russian program in Omsk have been successful.

▪ Obstacles

1. Study abroad, exchange programs, and research efforts are divided among various entities, leading to duplicated and nonproductive efforts. This could be addressed by creating one general office to manage these areas.
2. There is a lack of funding for study abroad and research projects involving global partners. Creation of an International Programs Fee in the general student fee schedule would fund the growth and development of programs and scholarships including global competence.
3. Administrative help should be provided for faculty executing student foreign exchange programs to lessen the burden of the bureaucratic process. Faculty energy can then be directed toward analyzing and disseminating the results of the exchange program. Reorganization of this and other globally oriented efforts under one agency would improve delivery of services.
4. Additional avenues are needed to create and promote short-term experiences abroad. These have proven to be excellent opportunities to expose students to the world at a reduced cost. Solutions might include extending the spring break, introducing “mini-mesters” of two or three weeks over winter break to foster student travel abroad or implementing a January session or “winterim” whereby students can take a class involving international travel for credit.
5. Students and scholars need to be recruited to participate in various globally oriented programs. Promotional materials should be developed to educate students on the benefits of developing global competence and to recruit international participation.

2. The interdisciplinary Global Studies Certificate Program. The interdisciplinary Global Studies Certificate Program (GSCP) helps advance global awareness by helping students prepare to live and work in a global society. The Global Studies Certificate may be earned while fulfilling the academic requirements for an NC A&T degree in any discipline.

- Strengths
 1. Courses that qualify for the GSCP must include student-learning goals centered on global issues or area studies and should prepare students to analyze and evaluate global issues.
 2. Only intermediate/ advanced foreign language instruction qualifies for credit toward the certificate.
 3. A required study abroad experience where students matriculate at a foreign university and are immersed in the language and culture of the host country.
- Obstacles
 1. Graduate students need to be brought into the program through additional opportunities. Steps to remove this obstacle would include additional funding to support global studies efforts and exchanges at the graduate level.
 2. Faculty involvement and direction should be increased. The program lacks a faculty position to coordinate efforts and advise students with course selection for study abroad. Hiring or appointment of a faculty coordinator would remove this obstacle.
 3. To further increase global competitiveness, faculty leaders of exchange programs and research projects should strive to disseminate their exchange projects in English and/or in the target language, in pedagogical journals appropriate to their disciplines. Additional support for faculty development in languages would address this issue.
 4. Ties should be reinforced between the Department of Foreign Languages and the School of Graduate Studies so that graduate students may complete service learning projects abroad in their research field and disseminate them upon return.
 5. Encourage and support faculty to integrate and use technology for developing global competence in their courses (virtual international projects).

3. The Interdisciplinary Scientific Environmental Technology (ISET) Cooperative Science Center.

- Strengths
 1. The Interdisciplinary Scientific Environmental Technology (ISET) Cooperative Science Center collaborates with NOAA's Earth System Research Laboratory (ESRL) in Boulder, Colo., and a consortium of other universities to address climate and weather-related concerns. Research is focused on sensor science, analysis of global observing systems, and information technology tools.
 2. Physics cooperates internally with the Department of Journalism and Mass Communication on meteorological training.
 3. A cooperative relationship with Addis Ababa University in Ethiopia has continued over three years, addressing some of the most pressing issues, including climate change, through the annual International Heliophysical Year space weather workshops in Africa.
- Obstacles
 1. Funding for faculty and student research needs to be accessible and the system for disseminating and reimbursing funds through Contracts and Grants should be streamlined, encouraging more PIs to seek external funding and pursue research and publication projects.
 2. Critical languages including Russian, Chinese, Arabic, and Farsi need to be offered to enhance opportunities for research abroad. Some language classes have been eliminated since student participation falls below what is considered to be adequate enrollment. Federal funding should be sought for instruction in these languages.

4. College of Engineering Educational Partnerships. The College of Engineering has fostered a number of educational partnerships and collaborate agreements with educational institutions abroad.

- Strengths
 1. Student exchange agreements with Federal Universities in Brazil.

2. Educational partnership agreement with Nkrumah University of Science and Technology (Ghana) and Bharati Vidyapeeth College of Hi-Tech Engineering (India)
3. Memoranda of Understanding exist with a number of universities in Africa and the Far East.
4. Ongoing joint research activities with Frantzevich Institute (Kiev) and Institute for Single Crystals (Kharkov) - Ukraine including joint conferences through NATO.

- **Obstacles**

1. Faculty should explore the service learning model and implement it in their foreign exchange programs. The model provides participating faculty and students opportunities to immerse themselves in a foreign language, and to engage in formal reflection and evaluation activities that can be worked into conference papers and discipline-specific, pedagogical and service-learning academic journals.
2. The relationship between Foreign Languages and the Minority Engineering Educational Exchange should be explored further, so that a service learning component can be developed culminating in the dissemination of graduate student research in engineering.
3. Critical languages including Russian, Chinese, Arabic, and Farsi need to be offered to enhance opportunities for research abroad. Some language classes have been eliminated since student participation falls below what is considered to be adequate enrollment. Federal funding should be sought for instruction in these languages.

5. The School of Business and Economics. The School of Business and Economics has ongoing ties with Nigerian institutions and others as it develops projects to enhance free enterprise education and understanding of economic development.

- **Strengths**

1. SIFE Nigeria: A University and Community Partnership for Free Enterprise Education NC A&T. Students and faculty advisors collaborate with the University of Uyo, Enugu State University, and Nnamdi Azikiwe University, all in Nigeria, to develop projects to enhance free enterprise education.
2. Entrepreneurship as the Missing Factor in the Economic Development of Poor Countries - a research project comparing resources and factors of production role in economic development of China and Nigeria. A continuing study in collaboration with a faculty in the University of South Africa with a focus on African countries.

- **Obstacle**

1. Funding for faculty and student research needs to be accessible and the system for disseminating and reimbursing funds through Contracts and Grants should be streamlined, encouraging more PIs to seek external funding and pursue research and publication projects.

6. Other Programs, Initiatives and Activities.

- UNST Global Studies Cluster is part of the general education curriculum, providing a foundation that is globally oriented and a select group of courses clustered around this theme, from which students select four classes attuned to their interests.
- A partnership is being developed with the Disney College Program which will provide credit-bearing internship opportunities at Disney World for NC A&T's exchange students from Ghana and Brazil.
- A proposed "Anti-Malarial Program" would bring together the School of Nursing and the School of Technology in an effort to eradicate malaria in developing countries.
- The School of Business and Economics has proposed an inter-university exchange and program collaboration for research and educational projects with University of Witwatersland, University of South Africa (UNISA), University of Pretoria, University of Stellenbosch, and the University of Cape Town, all of South Africa. Interdisciplinary programs will involve collaboration with diverse A&T faculty.

- A new Global Studies in Engineering Certificate Program has been initiated for exchange students.
- The School of Business and Economics has proposed a program to enhance the global preparedness of students in a multidisciplinary course that will enhance the students' cultural competencies through built-in and online short term experience abroad and online/virtual team project. Project will be in collaboration with universities across the globe.
- Proposed School of Nursing project would focus on strengthening the practice of democracy through cross-cultural dialogue. A diverse group of participants/fellows from Ghana would interface with each other and NC A&T representatives through training, multicultural activities, cultural sensitivity training, seminars on cultural issues and governance and workshops. Additionally, the Ghanaian fellows will enroll in summer courses at NC A&T and together will shadow participants and visit the Congressional Black Caucus and Parliament in Ghana.
- NC A&T has a globally diverse faculty who lead many of the international activities with students.

C. New Programs, Initiatives and Activities

1. Create an Interdisciplinary Center for Global Affairs and Studies. The Center will provide administrative leadership and focus to efforts to globalize the campus. Faculty will be empowered to conduct interdisciplinary research on global issues that will inform and strengthen the curriculum. They will also cooperate on research with faculty in the UNC system, nationwide and globally, and will compete for projects that will provide the funding support for teaching and research for campus globalization initiatives. Support faculty development and student study abroad. Issues of global communication and outreach would be addressed by establishing a firm financial base supporting immersion programs, mini-mesters, short-term experiences and other programs that would improve language skills, make connections across international boundaries, and provide expanded research opportunities.

2. Revise Curricula of Schools and Colleges to Include a Focus on Developing Global Competencies. Emphasis would be on instruction in critical languages, development of service learning curricula with a global focus, and integration of technology to create virtual international projects. At the undergraduate level, a strong UNST global studies cluster would be developed and current courses revisited to improve cross-cultural competencies.

D. Programs, Initiatives and Activities that Should be Combined or Eliminated

- Bring the Office of International Program and the International Scholars Program under the umbrella of a new Interdisciplinary Center for Global Affairs and Studies. With centralization, the elimination of duplicate efforts, and additional administrative support, faculty and student exchange programs, research abroad, and cooperative agreements could be promoted and maximized.
- Develop stronger ties between the Department of Foreign Languages and the new Center.
- Move the Global Studies Certificate Program (GSCP) to an academic unit or appoint qualified faculty to work with the program.
- Develop a stronger relationship between GSCP and the International Studies concentration in Liberal Studies.

E. Implementation Strategies, Plans And Timelines

(See attached table for details.)

NC A&T State University

A2. Global Readiness: Global Competitiveness - Implementation Strategies, Plans And Timelines

Priority 1. Create an Interdisciplinary Center for Global Affairs and Studies.

<i>Strategy</i>	<i>Plans</i>	<i>Responsible</i>	<i>Resources</i>	<i>Timeline</i>
Create an Interdisciplinary Center for Global Affairs and Studies that will serve as a central administrative unit servicing and promoting globalization of the campus.	<ul style="list-style-type: none"> ▪ Combine the Office of International Programs and Office of International Students and Scholars. ▪ Establish a faculty task force to create a blueprint for establishing the Center along with long and short term goals for its operation. ▪ Support faculty development and student study abroad. 	<ul style="list-style-type: none"> ▪ Provost. ▪ Vice Chancellor for Student Affairs. ▪ Division of Research and Development (DORAD). ▪ Office of International Programs. 	<ul style="list-style-type: none"> ▪ Faculty/staff resources for the Center. ▪ Reasonable operating budget. ▪ Add \$2.50/student fee to support study abroad. 	Fall 2009

Priority 2. Revise Curriculum of Schools and Colleges to Include a Focus on Developing Global Competencies.

<i>Strategy</i>	<i>Plans</i>	<i>Responsible</i>	<i>Resources</i>	<i>Timeline</i>
Revise curriculum of schools and colleges to include a focus on developing global competencies.	Revise curricula to develop global competencies across the curriculum emphasizing strong study abroad component.	<ul style="list-style-type: none"> ▪ Provost. ▪ Deans, Schools and Colleges. 	<ul style="list-style-type: none"> ▪ Technology development grants. ▪ Summer grants to faculty for curriculum development. 	Fall 2009

B. Increasing Access To Higher Education North Carolina A&T State University

UNC Tomorrow

4.2. Our Citizens and Their Future: Access to Higher Education

Major Finding: *UNC should increase access to higher education for all North Carolinians, particularly for underserved regions, underrepresented populations, and non-traditional students.*

Recommendations:

4.2.1. *UNC should increase access to its educational programs – including academic courses, degree programs at all levels, and certificate programs – for traditional students, non-traditional students, and lifelong learners.*

4.2.2. *UNC should continue ongoing efforts with the North Carolina Community College System to strengthen and streamline articulation between the two systems to develop a more seamless relationship.*

4.2.3. *UNC should be a model for accommodating the needs of persons with disabilities, including students, faculty, staff, and the general public.*

4.2.4. *UNC should maintain affordability and increase financial aid options.*

4.2.5. *UNC should increase the educational attainment of all underrepresented populations, especially African-American male and Hispanic students.*

4.2.6. *UNC should help ensure that all students are better prepared to enter and succeed academically in college.*

NC A&T State University Increasing Access to Higher Education

A. Executive Summary

North Carolina A & T State University (NC A&T) currently is in the best position to provide access to African-American males, underrepresented population, non-traditional students, public instruction, and health education. The infrastructure exists on campus but it needs to be enhanced so that it can reach its potential. Because NC A&T has the experience, it can easily develop programs for other geographic areas of the state. An area that NC A&T can develop in the near term is the Hispanic community. At this time, we may not be able to respond effectively on veterans and disabled students.

B. Existing Programs, Initiatives and Activities

- **Distance Education** – Online courses and programs offer accessibility to individuals in rural communities.

- **Summer Programs for Professional Development** – Opportunities for professionals to obtain needed credits and in some instances complete professional education requirements.
- **Evening and Weekend Programs** – Courses and programs offered in the evening and on Saturday offer opportunities for nontraditional students to take college courses and/or complete degree programs at times more accessible to their work schedules and life's other responsibilities.
- **Continuing Education and Professional Development Programs** – The Office of Continuing Studies and Professional Development provides credit and non-credit classes, short courses, seminars, workshops, and conferences to business, industry and the community at large to meet personal and professional development needs.
- **Pre-college Initiatives** – Programs that start preparing students for college beginning in middle school and helping them matriculate through high school.
- **Cosby Kids** – The partnership involving NC A&T, Guilford Technical Community College (GTCC), and Guilford County Schools is a multifaceted initiative designed to enhance the academic performance of African-American and Hispanic students in the fourth, sixth and eighth grades. The overall goal of the "Cosby Kids" Program is to ensure that targeted children perform at grade level or above in the areas of reading, math, and science.
- **High School on NC A&T's Campus / Middle Colleges** – NC A&T provides facilities for 100 male high school students from Guilford County to attend classes.
- **Early College** – This program allows students who traditionally attend Dudley and Andrews High Schools to complete their high school requirements while simultaneously completing credits for college at NC A&T.
- **Cooperative Extension** – Provides limited resource youth educational opportunities that support positive youth outcomes via community-based 4-H programs that engage youth in obtaining knowledge and skills in such areas as: robotics, citizenship, entrepreneurship and healthy lifestyles. Through these outreach efforts, youth are prepared to further develop career aspirations and acquire post-secondary education.
- **Specialized Licensure Programs for Teacher Assistants and Coaches** – These fast-track licensure programs are addressing the need for licensed teachers in areas such as Science Technology Engineering Mathematics (STEM) and special education.
- **Rural Teaching Fellows** – This program identifies qualified candidates, living in rural areas, to transition into teacher education programs. Program offers tuition, books, and other support
- **Two + Two Program** – This initiative allows students to complete two years at the community college and the remaining two years at NC A&T.
- **NC A&T office at Guilford Technical Community College (GTCC)** – Academic advisement is provided by NC A&T counselors several hours a week for GTCC students
- **Office of Disability Services** – Partnership with Vocational Rehabilitation (VR) and Services for the Blind; Student Support Services provides services to students with disabilities; and Each May the rehabilitation counseling program conducts a workshop for state VR agencies, faculty, Services for the Blind, and other interested agencies/persons.
- **Dual License in Special Education** – Current program is identified under elementary education with licensure in special education.
- **Outreach Projects** – (e.g. lunch buddies, YMCA Chess Club).
- **Diversity Outreach for Caucasian Students and Other Diverse Groups** This effort is coordinated through the Multicultural Center.
- **Centers and Others Programs** – Counseling Center; Multicultural Student Center; Center for Academic Excellence; and Peer mentoring programs.

Strengths of The Programs (Not all strengths apply to all programs)

- Potential to reach untapped populations.
- Many courses for degree, certification, and/or licensure offered online.
- Students can attend at their convenience (time and location).
- Offers flexibility for working and nontraditional students.
- Augments the number of degrees we can offer online.
- Decreases cost of school (not on campus; limited travel).
- Addresses student deficiencies beginning in middle school before students determine academic pathways.
- Makes baccalaureate degree more affordable since community college is less expensive.
- Articulation with specific degree programs.
- Increases awareness on campus.
- Federal grants.
- NC A&T is a source of pride in the black community.
- History of addressing the unique needs of underrepresented populations.

Obstacles and Barriers to Enhancing the Success of the Programs

- Skill level of the consumer in using technology.
- Student motivation and efficacy.
- Technology Infrastructure.
- Limited scholarships that address the need of students who do not qualify for federal funding but yet have limited resources.
- Lack instructional designer to help faculty deliver and develop online courses.
- Not all programs are adaptable to online instruction.
- Available classrooms.
- Need adequate staff for GTCC (Guilford Technical Community College) office.
- Need professional development for all faculty/staff regarding disability issues.
- All facilities need to be ADA (Americans with Disabilities Act) compliant.
- Heavy reliance on federal grants to fund scholarships in Vocational Rehab program.
- Limited internal funding.
- Limited parental support.
- K-12 graduation rates.
- Under prepared high school graduates.

C. New Programs, Initiatives and Activities

1. North Carolina African American Male Initiative. NC A&T State University is a robust institution and it is the only HBCU with the combination of Engineering, Technology and Agriculture on its campus. Further, it has a track record of providing quality education to the community and therefore, it is best positioned to lead the initiative on developing a model of how to attract, recruit, and retain African-American males in higher education. This initiative is designed specifically to reduce the number of African American male high school dropout rate which is 22% at this time. The initiative will have programs that will target males in junior high through high school and then college. Further, it is the vision that NC A&T will lead a partnership of both public and private HBCU's in the state for this initiative.

2. Establish Branch Campuses. There is a high need in North Carolina to create new and expanded degree programs by providing access to North Carolinians. For example, it is anticipated that there will be

about 80,000 new students by 2017. Therefore, NC A&T wishes to develop branch campuses to serve the underserved regions of the state, increase its enrollment, and engage the community with its educational products. This initiative supports UNC Tomorrow findings and recommendations on providing access to higher education, outreach and engagement and economic transformation through education. We propose to use the community college partnership model in the first instance. This will allow us to develop Bachelor's and Master's programs on the community college campus.

D. Programs, Initiatives and Activities that Should be Combined or Eliminated

The University has no programs, initiatives and activities associated with increasing access to high education that should be combined or eliminated.

E. Implementation Strategies, Plans and Timelines

(See attached table for details.)

NC A&T State University

B. Increasing Access to Higher Education - Implementation Strategies, Plans and Timelines

Priority 1. The North Carolina African American Male Initiative.

Strategy	Plans	Responsible	Resources	Timeline
<ul style="list-style-type: none"> ▪ African American Male Academy, Annual State of Academic Achievement of African American Males report and symposium. ▪ Small Learning Communities and Block Scheduling at NC A&T. ▪ Charter the Student African American Brotherhood at NC A&T. ▪ Partner with NC A&T's all male Middle College. ▪ Community based initiatives. ▪ Partner with non-profit organizations such YMCA, religious institutions and civic entities. 	<ul style="list-style-type: none"> ▪ Develop strategic plan for initiatives. Identify contacts on each campus, develop programs that support the initiatives, inventory existing programs, identify students for programs and resources. ▪ Develop an alliance of all HBCU's (public & private) in the state on African-American males. 	<ul style="list-style-type: none"> ▪ Academic Affairs. ▪ Student Affairs. 	<ul style="list-style-type: none"> ▪ Associate Vice Chancellor for Access. ▪ Coordinator for each campus. ▪ Faculty and support staff. ▪ Facility 50,000 sq. ft.(\$5 Million). ▪ Personnel and Office (\$350,000). 	<ul style="list-style-type: none"> ▪ Fall 2010 (Pilot) ▪ Fall 2011 (Full Operation)

Priority 2. Establish Branch Campuses.

Strategy	Plans	Responsible	Resources	Timeline
<ul style="list-style-type: none"> ▪ Establish sites where NC A&T has competitive advantage, i.e., Robeson and Halifax Counties, NC. ▪ Develop an office within existing community colleges. 	<ul style="list-style-type: none"> ▪ To provide majors in various areas on campus: Technology, Education, Pre-engineering and Nursing. 	<ul style="list-style-type: none"> Provost, Academic Affairs. 	<ul style="list-style-type: none"> ▪ Associate Vice Chancellor for Access. ▪ Coordinator for each campus. ▪ Faculty and support staff. ▪ (\$1 Million). 	<ul style="list-style-type: none"> ▪ Fall 2011

C. Improving Public Education North Carolina A&T State University

UNC Tomorrow

4.3. Our Children and Their Future: Improving Public Education

Major Finding: *UNC should be more actively involved in solving North Carolina's public education challenges.*

Recommendations:

4.3.1. *UNC should improve the quantity, quality, and geographic distribution of public school teachers.*

4.3.2. *UNC should help address the shortage of science and math teachers, especially in rural areas.*

4.3.3. *UNC should strengthen efforts, in cooperation with the North Carolina State Board of Community Colleges and the Community College System, the North Carolina State Board of Education, and the North Carolina Department of Public Instruction, to enhance the teaching skills of public school faculty and the leadership skills of public school administrators.*

4.3.4. *UNC should leverage its expertise, and increase collaborations with the State Board of Education and Department of Public Instruction, to lower our state's dropout rate and improve academic achievement in all public schools in North Carolina, especially those that high-priority and low-performing.*

4.3.5. *UNC should strengthen partnerships with the State Board of Education, the North Carolina Department of Public Instruction, the North Carolina Community College System, and our state's Independent Colleges and Universities to develop a seamless educational continuum from pre-K through higher education ("Birth-20").*

NC A&T State University Improving Public Education

A. Executive Summary

North Carolina Agricultural and Technical State University (NC A&T) offers programs, initiatives, and activities designed to improve public education. The School of Education leads campus efforts in training pre-service and in-service teachers, counselors, school executives, school social workers, and other school personnel to work in the public schools, thereby improving public education. Partnerships are formed with Local Education Agencies (LEAs), Community Colleges, and the North Carolina Department of Public Instruction (NCDPI) to improve the quality and quantity of teachers. Additionally, funded initiatives are aimed at producing more teachers in high need content areas as well as geographic diversity. NC A&T is poised to continue to be a leader in improving public education by doing its part in the seamless education continuum.

NC A&T School of Education currently offers several programs, initiatives, and activities that are key in improving public education, including but not limited to: the Cumulative Effect Program, the 2+2 Program, the Master of Art in Teaching, National Board Seminars, Rural Teaching Fellows, and Professional Development Schools (PDS). Though these programs focus on different components of public education, all support in-service school personnel and/or increase the number of highly qualified school personnel. The Cumulative Effect Program, a partnership with Guilford County Schools and UNC Greensboro, provides content mentoring and pedagogical and professional skill development for high school mathematics teachers. The 2+2 Program allows for the seamless transfer of community college students into teacher education programs offered by NC A&T. The Master's of Art in Teaching Program (MAT) and the National Board Seminars enable candidates to get advanced education and certification. The Rural Teaching Fellows is grant funded and aims to increase the number of teaching professionals in rural areas. Professional Development Schools is a mutually beneficial partnership between the University's Teacher Education Program and the public schools for professional development of pre-service and in-service school personnel.

B. Existing Programs, Initiatives and Activities

1. Cumulative Effect. This program is a partnership among NC A&T State University, UNC Greensboro, and Guilford County Schools. The purpose of the program is to provide mentoring in content development, pedagogical skills, and professional skills for 80 high-school mathematics teachers in five (5) schools in Guilford County School System.

- **Strengths.** Provides a collaborative model for enhancing the quality and skills of teachers in mathematics. Even though federally funded, this program should be expanded and enhanced because of the potential to have far reaching impact on the quality of teachers in the classroom.
- **Assessment.** This program is assessed by the student performance in mathematics and teacher retention.
- **Obstacles and barriers.** The greatest obstacle to optimum success of this type of initiative is that it imposes on teachers' and creates additional stress due to the fact that it is an add-on program as opposed to an institutionalized method of ensuring quality and retention.

2. The 2+2 Program/Distance Education. The 2+2 programs allow seamless transition from area community colleges to the Teacher Education Programs at NC A&T.

- **Strengths.** The 2+2 programs have the potential for impacting the teacher shortage.
- **Assessment.** These programs are assessed by the number of teachers certified each year especially in high needs areas (math, science and special education). These programs, because of the potential for impacting teacher production, should be enhanced and expanded to include all certification areas.
- **Obstacles and barriers.** The lack of resources including adequate faculty (online and clinical) and scholarships for 2+2 students.

3. The Master's of Arts in Teaching (MAT). The Master of Arts in Teaching is a masters program designed for candidates who hold a Bachelors degree and wish to be become highly qualified teachers. The design of this program allows participants to gain certification and to obtain the masters degree, if they desire.

- **Strengths.** The MAT program improves the quantity, quality, and geographical distribution of teachers by providing opportunities for individuals with degrees to become certified and earn a masters degree concurrently.

- **Assessment.** This program is assessed by the number of candidates certified, the number of candidates earning Master's Degrees and the number of candidates earning National Board Certification.
- **Obstacles and barriers.** Given the geographical distribution and quantity of candidates in the MAT program, the barriers include the lack of clinical faculty to ensure the quality of the program, candidate scholarship and support personnel for the program.

4. National Board Seminars. NC A&T Master's programs designed to lead to advanced licensure are aligned with National Board Professional Teaching Standards (NBPTS). As a result, the School of Education provides a series of workshops and coaching sessions that are open to all public school teachers in the area. These activities assist teachers with understanding the NBPTS certification process, standards' evidences in addition to providing technical support in preparing packets.

- **Strengths.** The National Board Seminars assist candidates with understanding NBPTS, preparing portfolios for submission, and providing test preparation activities. As a part of the outreach program/school partnerships, these seminars should be expanded to provide more candidates the opportunity to become better prepared to teach all students.
- **Assessment.** National Board Seminars are assessed by the number of candidates enrolled and the number that receive National Board Certification.
- **Obstacles and barriers.** Due to limited resources the number of individuals served by this program is limited.

5. Rural Teaching Fellows. This is a federally funded program delivered online and on site for rural participants to acquire certification in math, science, and special education.

- **Strengths.** This alternative program for non traditional students in rural areas is delivered onsite and online. It is imperative that this program be continued; the components of the program provided a model for certifying teachers in high needs areas targeting rural populations.
- **Assessment.** This program is assessed by the number of teachers certified from rural areas.
- **Obstacles and barriers.** This program is a federal grant; however, the concept could be institutionalized with appropriate resources.

6. Professional Development Schools (PDS). The PDS is a collaboratively planned and implemented partnership between the University Teacher Education Program and P-12 school(s). The partnership provides clinical preparations for interns (undergraduate and graduate) and continuous professional development for school and university faculty.

- **Strengths.** The PDS program improves articulations and removes unnecessary barriers to seamless educational experiences for candidates. The PDS program will be revised to accommodate the needs of the professional learning communities.
- **Assessment.** The partnership is assessed by participation of pre-service and in-service teachers in activities to develop professional growth, i.e. workshops, clinical field placements, action research.
- **Obstacles and barriers.** Consistency of public school executives, funding, resources, and personnel.

C. New Programs, Initiatives, and Activities

1. Improve the Quantity, Quality, and Geographic Distribution of Public School Teachers in High Need Areas. The shortage of public school teachers is crucial in both North Carolina and nationwide. This shortage affects the preparedness of those who enter the academy, the work force, and the overall economy and society. NC A&T aims to address these shortages, while simultaneously improving the quality of the existing teacher education workforce. Plans that will increase the number of licensed

individuals in the teaching profession are being planned, with special emphasis on the high need areas of mathematics, science, and special education. Additionally, plans are underway for working with current teachers to improve their quality.

2. Develop a Seamless Education Continuum for Pre-K Through Higher Education. The *Revisioning Process* mandated by the State Board of Education's adoption of 21st century education standards for teacher education programs will enable NC A&T to be a key part of the seamless educational continuum. The process specifically involves developing new programs that meet the needs of the 21st century by working with public schools, community colleges, and the community in a more meaningful way. Each of these stakeholders will be involved in the revisioning of the teacher education programs—from planning to implementation. By working together with partners in education, the seamless education continuum will become a reality and students will be prepared at each level for the next level.

D. Programs, Initiatives and Activities that Should be Combined or Eliminated

The University has no programs, initiatives and activities associated with improving public education increasing that should be combined or eliminated.

E. Implementation Strategies, Plans and Timelines

(See attached table for details.)

NC A&T State University
C. Improving Public Education - Implementation Strategies, Plans and Timelines

Priority 1. Improve the Quantity, Quality, and Geographic Distribution of Public School Teachers in the High Need Areas.

Strategy	Plans	Responsible	Resources	Timeline
Expand the Distance Learning Program.	Develop and offer distance learning courses for licensing teachers in high need areas.	<ul style="list-style-type: none"> ▪ Dean, School of Education. ▪ Director of Distance Learning. ▪ Teacher Education Council. 	Three additional clinical faculty. (3 faculty at \$55,000 each annually = \$165,000).	Fall 2009
Teacher Assistant Program.	Recruit, license, and follow-up to the induction of teacher assistants into the public schools.	Dean, School of Education.	20 scholarships per year (at \$10,000 each = \$200,000).	Spring 2009
Establish a teacher education recruitment team.	<ul style="list-style-type: none"> ▪ Establish a team with the primary focus of recruiting teacher education candidates, especially into high need areas. ▪ Develop a bridge program for P-12 students: <ul style="list-style-type: none"> - Bridge Program - recruit P-12 students interested in teaching. - Centralized advising. - Parent Program aimed at influencing career choices. - Recruit high school students from rural areas. 	<ul style="list-style-type: none"> ▪ Dean, School of Education. ▪ Dean, College of Arts and Sciences. 	No additional resources are needed.	Spring 2009
Optional Licensure Program for currently enrolled students.	Recruit teacher education candidates from degree seeking students in engineering, professional science, mathematics, psychology, and sociology into high need licensure areas.	<ul style="list-style-type: none"> ▪ University Recruitment Team. ▪ School of Education Recruitment Team. 	Recruitment materials (\$5,000); and Summer tuition, books, fees, and room, board and Praxis I and II registration fee (\$112,500) = (total cost \$117,500 for 40 students).	Fall, 2008
Provide centralized advising for Freshman and Sophomore teacher education students.	Implement new procedures and strategies for freshman advisement.	<ul style="list-style-type: none"> ▪ Dean, School of Education. ▪ Recruitment Team. 	No additional resources are needed.	Fall 2009
Mathematics Teaching Licensure for Engineers.	Identify related areas in engineering for math and science.	<ul style="list-style-type: none"> ▪ Dean, School of Education. ▪ Dean, College of Engineering. 	Summer Scholarships, (20 at \$3,000= \$60,000 per summer).	Fall, 2009
Recruitment plan for science education teachers (biology, chemistry, and physics).	Identify related areas in professional science and professional mathematics for licensure.	<ul style="list-style-type: none"> ▪ Dean, School of Education. ▪ Dean, College of Arts and Sciences 	No additional resources needed.	Fall, 2009
University Studies Education Cluster Theme to support Teacher Education licensure.	Develop a cluster theme to address the professional education and pedagogical courses needed for licensure in math and science.	<ul style="list-style-type: none"> ▪ Dean, School of Education. ▪ Dean, University Studies. 	No additional resources needed.	Fall, 2008

Priority 2. Develop a Seamless Educational Continuum From Pre-K Through Higher Education.

<i>Strategy</i>	<i>Plans</i>	<i>Responsible</i>	<i>Resources</i>	<i>Timeline</i>
Initiate partnerships with P-12, public and private institutions and community colleges.	Develop a consortium consisting of P-12 schools, privates, publics, and community colleges to provide a seamless continuum for greater access to higher education for all students.	Superintendents, Chancellors, Presidents, Deans, and Department Chairpersons.	Travel, advertising funds (\$75,000 per year).	Fall, 2010
Revisioning teacher education learning communities: <ul style="list-style-type: none"> ▪ Curricula revisioning of ALL teacher education programs to address 21st century skills and new teacher standards. ▪ Enhance Professional Development Schools (PDS) programs. ▪ Increase number of clinical faculty. ▪ Developing avenues for tenure for clinical faculty. 	<ul style="list-style-type: none"> ▪ Revise all teacher education programs to align with 21st Century standards. ▪ Enhance professional development school partnerships based upon the outcome of the revisioning process. ▪ Increase clinical faculty to coincide with the revisioning. ▪ Provide a reward system for clinical faculty. 	Chancellor, Provost, Deans, Department Chairpersons, and Faculty members.	(\$225,000).	Fall, 2009

D. Economic Transformation and Community Development North Carolina A&T State University

UNC Tomorrow

4.4. Our Communities and Their Economic Transformation

Major Finding: *UNC should be more actively engaged in enhancing the economic transformation and community development of North Carolina's regions and the state as a whole.*

Recommendations:

4.4.1. *UNC should increase its capacity and commitment to respond to and lead economic transformation and community development.*

4.4.2. *UNC should focus specific effort in meeting the needs of rural and underserved areas of the state.*

4.4.3. *UNC should seek to align appropriate campus programs with the strategic economic plans (including sector and cluster plans) of their regions and the state, recognizing the unique differences and challenges of our state's economic and geographic regions.*

4.4.4. *UNC should promote the arts and cultural enrichment in all regions of the state.*

4.4.5. *UNC should facilitate inclusive discussions on important community issues.*

NC A&T State University Economic Transformation and Community Development

A. Executive Summary

North Carolina A&T State University (NC A&T) has been a significant player in the region's entrepreneurial and economic development. Programs in agricultural science, public health, supply chain management, nanotechnology and other fields have been and continue to be vital to the development of high growth industries. Also, the Office of Outreach and Technology Transfer assists students and faculty to transfer research and scientific discoveries into marketable products. The office's commercialization pipeline includes a portfolio of 29 patents and 71 inventions. Currently, 41 percent of the patent portfolio is licensed to industry and has generated \$224,670 since 2005. The establishment of the Gateway University Research Park, a joint venture between NC A&T and University of North Carolina at Greensboro (UNCG), is an example of the importance of partnerships to advanced regional economic development.

The proposed initiatives in this section challenge the University to be more actively engaged in enhancing the economic transformation and community development of the Triad region and the state. The section recommends (a) the establishment of an Office of Economic Development and Engagement which would coordinate the university's economic development efforts and leverage its resources to foster economic growth and ensure competitiveness in the global economy (b) the use of the cooperative extension

program and the SBTDC to increase the university's capacity to lead economic transformation and economic development, especially in the rural and underserved areas and (c) the establishment of an Office of University Partnership to facilitate community engagement, including dialogue with the community on important issues.

B. Existing Programs, Initiatives and Activities

1. Gateway University Research Park. Gateway University Research Park is a joint collaboration between NC A&T and UNCG for the purpose of research and economic development within the Triad region. The park offers research opportunities to corporate, educational, and community service agencies interested in advanced scientific and educational research and technology; provides about 850,000 square feet of space and has the potential for incubation and development of new industries e.g. nanotechnology, biotechnology, environmental science, alternate and renewable energy, etc. It is the Triad's premier center for basic and applied research

The strengths of the program are: its master plan and collaboration between NC A&T and UNCG; its potential for incubation and new industries; the working together of business leaders and technology transfer officers to use the research findings of the universities to serve the needs of new and existing businesses; and the research expertise of the two universities. As a new entity, the park faces some of the same challenges as any new business, e.g. coordinating the various agencies involve and organizing and planning to ensure an efficient operation. Another challenge the park is facing is recruiting appropriate clients. The park is finding out that other parks in the region are targeting some of the same clients. One way of reducing this problem is to do joint marketing with the other research parks in the Triad area.

2. Interdisciplinary Center for Entrepreneurship and E-Business (ICEEB). The Interdisciplinary Center for Entrepreneurship and E-Business (ICEEB), a joint program of the Schools of Business and Economics, Technology, and Agriculture and Environmental Sciences, supports educational, research and outreach programs that promote entrepreneurial activity and economic development in the Triad Region. The focus is on wealth creation through entrepreneurial activity. The ICEEB:

- Provides academic and experiential learning experiences for students interested in individual or corporate entrepreneurship and for local entrepreneurs interested in improving their businesses;
- Offers an Entrepreneur-in-Residence program that includes mentoring and counseling to assist students in starting businesses;
- Conducts an undergraduate and graduate business plan competition;
- Collaborates with the various schools and colleges on campus to offer the Certificate in Entrepreneurship, Entrepreneurial Internship, and Entrepreneurship Lecture Series;
- Collaborates with community organizations to offer entrepreneurship training, franchise education, and QuickBooks Accounting and other seminars for local entrepreneurs.

The strengths of the program are its potential for creating a vibrant University-wide entrepreneurship program; its collaboration with both on-campus and external organizations; its partnership with several schools; and its growing academic program, which includes the recently approved Entrepreneurship Concentration for management majors. The main challenges are inadequate funding and support staff. NC A&T has been, and continues to be, a significant player in the economic development of the region. Through the ICEEB, the University will create a culture that supports entrepreneurship and economic development and will inspire students to pursue entrepreneurial careers.

3. The Small Business and Technology Development Center (SBTDC). The SBTDC is the University's largest inter-institutional program, with 18 offices statewide, each associated with one or more of the constituent institutions. It functions as the business and technology extension service of the UNC system and is administered, on its behalf, by NC State University. It is the most prominent University resource in the economic development arena and is also NC A&T's resource in Guilford and the surrounding counties. The SBTDC provides management counseling, technical assistance, research and educational services to existing small and mid-sized businesses and to start-up companies. It also provides strategic planning, research and project management services to economic and community development organizations and academic institutions. Over 50 percent of counseling and training activities currently are provided in the state's rural counties.

In addition to its core services in the rural counties, the SBTDC is actively engaged in two new equity capital initiatives. The first involves SBTDC support for the establishment of six "Inception Micro-Angel Funds (IMAF)" across the state. These funds will provide \$50,000 to \$125,000 in early seed stage capital to emerging businesses across the state. The second initiative is the implementation and operational support role of the SBTDC for the Rural Center's Rural Venture Fund. This fund will provide equity and near equity capital for existing businesses with the potential for growth and job creation.

The SBTDC strengths are as follows: its connectivity to local, regional and state economic development infrastructure; its effective working relationships with the Piedmont Triad Partnership and with local economic development commissions and chambers of commerce throughout the Piedmont Triad; and its 18 offices statewide and over 60 consultants. The main challenge that the SBTDC faces is being able to keep up with demand for its services. To address this challenge, SBTDC is using technology to become more productive and is increasing its collaboration with other partners to effectively respond to the needs of clients.

The SBTDC is uniquely suited to effectively respond to this finding, to better serve businesses and the economic development needs across the state, with a particular focus on the rural and underserved areas. The best hope for economic growth and prosperity in underserved areas is increased competitiveness and growth of existing businesses and successful new business formation. Utilizing the SBTDC as a primary campus resource for more formal campus engagement with the economic development community provides a cost-effective opportunity to meet the needs of the community.

C. New Programs, Initiatives and Activities

The highest priority programs needed to respond to this UNC Tomorrow major finding and associated recommendations are combined into **Section G. Outreach and Engagement** under **Priority 1. Create A Center For Outreach, Engagement And Economic Development (COEED)**.

D. Programs, Initiatives and Activities that Should be Combined or Eliminated

- SBTDC should collaborate with the Cooperative Extension System to form a single priority program as listed above. This collaboration could form the basis of a new program similar to Industrial Extension Program.
- "Develop Advanced Degree Program...." should be referred to the various academic programs for implementation.

E. Implementation Strategies, Plans and Timelines

(See attached table in Section G. for details)

E. Health
North Carolina A&T State University

UNC Tomorrow

4.5. Our Health

Major Finding: *UNC should lead in improving the health and wellness of all people and communities in our state.*

Recommendations:

4.5.1. *UNC should lead in improving health and wellness in North Carolina.*

4.5.2. *UNC should educate more health professionals.*

4.5.3. *UNC should lead in utilizing health information to improve health and wellness in North Carolina.*

NC A&T State University
Health

A. Executive Summary

There are two separate issues in this finding – improving the health of NC citizens and providing health professionals. We believe that improving the health of NC citizens starts on campus; therefore, at North Carolina A&T State University (NC A&T), multiple health initiatives and sponsored programs exist and vary annually based on available funding/financial resources. Sponsored Programs, Student Affairs, the Department of Health and Human Performance, ROTC, School of Nursing, Departments of Family and Consumer Science, Animal Science, Psychology, Biology, Institute for Public Health and the Center for Academic Excellence offer courses, workshops and programs related to health for students, faculty members and staff in an effort to educate the campus about health issues such as HIV/AIDS, nutrition and health, smoking cessation, stress management, and numerous other topics related to health.

The Department of Health and Human Services and Leisure Studies, the School of Nursing and the Department of Family and Consumer Science offer a total of six (6) degree programs in Sports Science and Fitness Management, Leisure Studies, Physical Education, Nursing and Nutrition (Dietetics and Food Science). The Institute for Public Health has a certificate program and engages in research related to health disparities. The School of Nursing was founded in 1953, accredited in 1971, and has graduated more than 1600 nurses since the establishment of the school. Employers actively recruit our graduates and report that they are excellent nurses.

The potential for impacting health and wellness of North Carolinians is huge on NC A&T's campus because of the number of students enrolled in health related and other degree programs and the number of persons employed by the University. Many of these students and employees are involved in outreach programs and activities in faith-based organizations faith communities that seriously impact the community.

Additionally, there are collaborative endeavors with other universities and local industries that impact health in our community.

The developers of this report are proposing several new degree programs related to health. The University has the knowledge, capacity and willingness to implement new programs when resources are available. There are challenges in expanding the nursing program(s) given the shortage of doctoral prepared nursing faculty members, but we are prepared to recruit the best available.

B. Existing Programs, Initiatives and Activities

1. UNC Focus Growth Project. NC A&T is making reasonable progress toward increasing the number of qualified nursing students in its program through a UNC Focus Growth project. The School of Nursing is in the process of:

- Hiring a nursing student recruiter
- Developing new recruitment materials
- Enhancing nursing faculty development opportunities
- Providing incentive funds to attract clinical faculty
- Pairing interested high school students with senior nursing students to serve as mentors or buddies.

This project will continue for another two years under this funding. It is too early to determine if this project is having a positive effect on the number and quality of new nursing students. It appears that this year's freshmen class is better than others in the past, but this may be due to increased admission requirements for all freshmen and not just nursing.

2. Health Programs and Initiatives. NC A&T is providing a number of programs designed to reduce risk factors and educate the campus community regarding health issues. Several departments sponsored programs for faculty, staff and students emphasizing:

- HIV/AIDS with a testing component,
- Fitness seminars and fitness exercise programs, to provide opportunities for to develop fitness routines to improve their overall health,
- Substance abuse - with a special program designed exclusively for athletes,
- Stress reduction classes and programs with a focus on healthy lifestyle changes and challenges and the overall physiology of stress,
- Major diseases such as diabetes, hypertension, and cancer with special emphasis on cultural and racial barriers to healthcare,
- Nutritional importance in food preparation and selections and its impact on health for families and children,
- Smoking cessation and the impact on health, designed to educate and impact behavior in the fast growing population of new smokers, and
- Sexual health and sexual behavior as they relate to long term health care.

The number of offerings provided on campus is a definite strength and recognizes the importance of health issues on the campus. Multiple departments and offices have some programs emphasizing health. These programs are evaluated by the attendants and the attendance for each program.

Obstacles and barriers to enhancing the success of the programs are mostly fiscal in nature. Funds are needed to purchase educational materials and to fund programs or seminars. There is also a need to encourage:

- Employees to use breaks to walk on campus and/or utilize healthy lifestyle tips.
- Departments to provide educational information during regular staff meetings and post health tips near water fountains, vending machines, time clocks, etc. and to provide continuous positive feedback for employees who work on personal health.

3. Existing Degree Programs.

- The Department of Health and Human Performance and Leisure Studies offers a baccalaureate program in Sports Science and Fitness Management, a baccalaureate program in Leisure Studies and a Master of Science degree in Physical Education. These programs in the School of Education prepare graduates to teach in their respective areas, and graduates are working in numerous other areas related to the disciplines.
- The School of Nursing offers a Bachelor of Science degree in Nursing. The baccalaureate program prepares graduates for beginning nursing positions and offers a completion program for licensed nurses wishing to earn the Bachelor's degree.
- The Department of Family and Consumer Science offers two degree programs in nutrition. One focuses on Dietetics and the other on Food Science.

Each of these existing degree programs has strengths and is effective in their respective areas and can be expanded with appropriate resources. Barriers exist in several areas related to availability and recruitment of doctoral prepared faculty and the fact that minority faculty members are particularly difficult to identify and recruit.

4. Existing Health and Wellness Related Research Programs. NC A&T actively conducts research on a variety of aspects of health and wellness, including disparities in health and health care, substance abuse, health education, Alzheimer's Disease, hypertension, diabetes, obesity, mental illness, disabilities, and lifestyle research projects. Most of this research is funded by state or federal agencies and is of fixed duration. Findings are disseminated through workshops and symposia, publications, media coverage, and community involvement. The projects' strengths include the diversity of approaches to health topics, the participation of most of the Schools and Colleges, and the involvement of students. Effectiveness is assessed by participant surveys, the continuation of funding, and the collaboration with others. The research efforts should be expanded to include more coordination of existing programs, better mechanisms through which valuable programs and funding can be continued, and involvement of more junior faculty and students in health-related research. The major obstacles are the limited funds available, the increasing competition for these funds, and the prohibitive teaching loads and other non-research responsibilities of many faculty wanting to conduct health research. Solutions include lessened responsibilities for those writing proposals, assistance and mentoring of junior faculty to involve them in research and proposal preparation, and state funding for the continuance of worthwhile health programs and centers currently established.

C. New Programs, Initiatives and Activities

1. Increase the Number of Health Graduates in the Workforce, Especially Nurses.

Initiatives to increase the number of health professionals in the work force, especially nurses, are essential to meeting the needs in North Carolina. The proposed degree programs will produce more nurse educators and facilitate increasing the enrollment in NC A&T's School of Nursing, but will also provide nurse educators for the community college programs in the state. A systematic recruitment process will enhance enrollment, and the development of initiatives to attract different students such as second degree students, transfer students from community colleges and other institutions, and licensed practical nurses will offer attractive career paths. The master's program will attract more doctoral prepared faculty to the School of Nursing program. It is extremely difficult to recruit faculty who wish to work with graduate students and develop a research program.

Increase in production is hampered currently because of the restrictions on enrollment, the junior faculty and less than 20% of the faculty in the School of Nursing has doctoral preparation. We must be sure that the current faculty members have the teaching skills necessary to prepare graduates appropriately and so they are able to succeed on the licensing examination.

The School of Nursing has recently initiated high fidelity simulation into the experiences of our students and plans to expand this initiative as rapidly as possible. Simulation experiences should enhance the clinical experiences currently available and allow faculty members to control the learning environment to a greater extent.

2. Initiate an Employee/Student Wellness Program. Seven strategies are outlined to accomplish this goal. We should develop a Center for Fitness and Wellness to coordinate all healthcare related programs and projects throughout the campus. The Center would serve as a clearinghouse to ensure that programs are tailored to address the major healthcare needs of the campus community. Additionally, coordination of health related activities would enhance the activities that currently exist.

D. Programs, Initiatives and Activities that Should be Combined or Eliminated

The work group recommends that we continue with the level of programs/degrees currently available. No programs/initiatives are recommended for elimination or discontinuance.

E. Implementation Strategies, Plans and Timelines

(See attached table for details.)

NC A&T State University
E. Health - Implementation Strategies, Plans and Timelines

Priority 1. Increase the Number of Health Graduates in the Workforce, Especially Nurses.

Strategy	Plans	Responsible	Resources	Timeline
Recruit more students for the pipeline: <ul style="list-style-type: none"> - Community College Transfers - Other transfers - 2nd degree students - Licensed Practical Nurses - Registered Nurses - High School Graduates 	<ul style="list-style-type: none"> ▪ Hire recruiter (currently advertising). ▪ Review and change curriculum to more easily accept transfer students. ▪ Develop accelerated program for 2nd degree students. ▪ Systematize visits to targeted high schools and develop ongoing relationships. 	School of Nursing and other schools with health related programs.	State Funds \$60,000 per year.	<ul style="list-style-type: none"> ▪ Begin planning immediately ▪ Curriculum modifications approved by May, 2009
Systematize recruitment: <ul style="list-style-type: none"> - Outline annual visits to supplement "Aggie Nites". - Develop attractive and informative materials for recruitment. 	<ul style="list-style-type: none"> ▪ Develop a recruitment plan that includes annual/biannual visitations and provide accurate and informative information. ▪ Participate in recruitment days at multiple sites. 	School of Nursing.	\$10,000 annually.	By May 30, 2008
Increase use of technology for all health care students.	Use technology maximally to assure that students are getting "cutting edge" education and are prepared to work in a technical environment.	School of Nursing for nursing students.	\$20,000 annually.	Begin immediately
Recruit doctoral prepared faculty members and increase the numbers of prepared faculty.	Advertise vacant faculty positions, attend national meetings with recruitment in mind and initiate Master's in Nursing Education degree program.	School of Nursing and School of Education.	\$10,000 annually for advertising and travel. (Degree program information in another section).	Ongoing

Priority 2. Initiate an Employee/Student Wellness Program.

Strategy	Plans	Responsible	Resource	Timeline
Employee Assistance Program.	Establish a program as soon as possible.	Vice Chancellor for Human Resources.	Funding from the State.	On-going
Weekly Stress Management Sessions.	Establish a program as soon as possible.	Human Resources and Student Affairs.	Funding from the State.	On-going
Develop a Health Tips Link on NC A&T Web site, Jumbotrom and Plasma Screens.	Approved messages will be provided by Sebastian Health Center and School of Nursing.	School of Nursing and Sebastian Health Center.	Webmaster-minimal to annually (\$1,200).	Fall 2008
Provide Gardisel Education and Immunization.	Sebastian Health Center will develop program.	Student Affairs-Sebastian Health Center.	Minimal- Student Insurance plan.	Fall 2008
Require Hepatitis & Meningococcal Immunization for all students.	Sebastian Health Center will develop program.	Student Affairs-Sebastian Health Center.	Minimal- Student Insurance plan.	Fall 2008
Series of annual or bi-annual symposia.	Initiate as soon as possible.	Departments and/or Institute for Public Health and Others.	(\$10,000).	2008-2009 academic year
Develop a Clearing House/System for health activities.	Initiate as soon as possible.	Academic Affairs.	Minimal.	2008-2009 academic year

F. Environment

North Carolina A&T State University

UNC Tomorrow

4.6. Our Environment

Major Finding: *UNC should assume a leadership role in addressing the state's energy and environmental challenges.*

Recommendations:

4.6.1. *UNC should embrace environmental sustainability as a core value among its institutions.*

4.6.2. *UNC should leverage its existing research expertise to address critical environmental and energy issues.*

4.6.3. *UNC should increase community awareness of environmental and sustainability issues.*

NC A&T State University Environment

A. Executive Summary

North Carolina A&T State University (NC A&T) has a strong history of providing leadership in addressing the state's energy and environmental challenges. This history is rooted in the establishment of the University to teach practical agriculture, mechanical arts and other branches of learning and is evidenced by the existing energy and environmental academic programs at the certificate, bachelor's, master's, and doctoral levels; established centers and institutes; and research funding that includes large multi-disciplinary, multi-institutional centers. Environmental research and academic programs are strengths of NC A&T but need to be nurtured in areas in which NCA&T can provide unique contributions to address the critical North Carolina energy and environmental issues. These areas include advancing the knowledge of alternative transportation fuels and technologies, providing energy and environmental continuing education and community awareness for the Piedmont Triad and surrounding areas, enhancing and supporting the North Carolina Institute for Energy Security and Independence (established in 2007 by North Carolina State University (NCSU), NC A&T, and Appalachian State University (ASU), evaluating new building designs and existing building renovations for environmental sustainability and validating actual performance, and providing climate change research and education through the \$12 million National Oceanic and Atmospheric Administration (NOAA) Interdisciplinary Scientific Environmental Technology (ISET) Center.

B. Existing Programs, Initiatives and Activities

1. Waste Management Institute (WMI). WMI was established in 1994 as an interdisciplinary academic support unit with research and public service functions. The purpose of the WMI activities is to enhance awareness of environmental and sustainability issues needed to improve the quality of life and protect the environment. The Institute offers undergraduate and graduate certificate programs in Waste Management,

organizes national environmental conferences, advises students who are interested in environmental and waste management careers, provides scholarships to students and helps coordinate environmental and waste management instruction, research, outreach, internships, faculty development, and student development that exists in individual departments. The effectiveness of the WMI is specifically assessed through: number of students receiving WMI certificates; number of partnerships established; number of funded scholarships awarded; and number of lecture series and invited guest speakers. Based on promising indicators in these areas, the WMI should be enhanced in the future.

2. Center for Energy Research and Technology (CERT). CERT was established in 1984 and approved by the UNC System as a Center in 2001. It works with the State Energy Office and its activities include research, outreach and extension, and education with an emphasis on underrepresented populations. As buildings are responsible for almost half of the energy use in the State, CERT's goals include facilitating the application of energy related technologies to buildings, collaborating with the building industry, and developing University-wide relationships with public and private sectors. CERT has been appropriated \$260,000 of State funding for 2008-09 and 2009-10. The effectiveness of CERT is specifically assessed through the number of students receiving training in energy related areas. Based on promising indicators in these areas, CERT should be enhanced in the future. Specific barriers to long-term sustainability of CERT are: additional faculty working in energy research to provide capacity to advise more students and offer more courses; and, additional administrative staffing.

3. NOAA Interdisciplinary Scientific Environmental Technology Cooperative Science Center (ISETCSC). The ISETCSC is in its second year of five years of funding in the total amount of \$10 million. The mission of ISETCSC is to develop capacity in research in NOAA scientific areas within NC A&T and six partner institutions (includes NCSU) to be able to train undergraduate and graduate students in NOAA scientific areas and increase public awareness through K-12 summer camps and teacher workshops. Its overall goal is technology development for understanding climate and environmental change. Activities have included the establishment of a new B.S. program in Atmospheric Sciences & Meteorology. The primary objective of ISETCSC is producing underrepresented doctoral students in NOAA scientific areas. The effectiveness of the ISETCSC is specifically assessed through: number of students receiving training in NOAA sciences; number of graduates in NOAA sciences; career success in NOAA sciences of its graduates; number of collaborations with NOAA scientists; leveraging of NOAA funding; and, relevance of the research to the needs of NOAA. Based on promising indicators in these areas, the ISETCSC should be enhanced in the future. A specific barrier to long-term sustainability of the ISETCSC program is having additional faculty working in NOAA science research to provide capacity to advise more students and offer more courses.

4. Energy and Environmental Studies (EES) Ph.D. Program. The EES Ph.D. program is in its third year of operation. It produced its first graduate in December 2007 and currently has 18 enrolled students. Faculty research advisers for the students come from the College of Arts & Sciences, School of Agriculture & Environmental Sciences, College of Engineering, School of Business & Economics, and School of Technology. The assessment of the effectiveness of the program is summarized below. Based on promising indicators in these areas, the EES program should be enhanced in the future. Specific barriers to long-term sustainability of the EES program are: additional faculty to provide capacity to advise more students and offer more courses; stable funding sources to provide financial aid packages for about five new students per year; policies for providing incentives for faculty to support interdisciplinary graduate programs; and, policies for providing incentives for departments to support interdisciplinary graduate programs.

Effectiveness Assessment. From an overall perspective the effectiveness of the above Existing Programs, Initiatives and Activities are assessed through: number of outreach activities and participants in each activity; career success of its graduates in environmental and energy related jobs; relevance of the activities to the environmental and energy needs of NC; and, the number of scholarly publications produced.

Barriers. From an overall perspective the barriers to the long-term sustainability of the above Existing Programs, Initiatives and Activities are: a master plan for energy/environmental research facilities; policies for operation of interdisciplinary institutes and research centers; policies for providing incentives for faculty to support interdisciplinary institutes and research centers; policies for providing incentives for departments to support interdisciplinary institutes and research centers; and, policies for providing incentives for faculty and departments to support the writing of interdisciplinary proposals.

C. New Programs, Initiatives and Activities

1. Establish an Energy Conservation Program. This program will educate the faculty, staff, and students on the importance of conserving energy in all the operations of the University. This will include reducing the carbon footprint of our operations and developing a better understanding of how what we do effects climate changes.

2. Create a “Green” Campus. The “Green Campus” will include physical recycling programs and educational programs about sustainability.

D. Programs, Initiatives and Activities that Should be Combined or Eliminated

- Merge Bioenvironmental Engineering and Chemical Engineering programs to allow NC A&T to train students majoring in Bio-energy and Environmental Engineering.
- Increase coordination among Earth & Environmental Sciences, Atmospheric Sciences & Meteorology, and GeoPhysics Programs.

E. Implementation Strategies, Plans and Timelines

(See attached table for details.)

NC A&T State University
F. Environment - Implementation Strategies, Plans and Timelines

Priority 1. Establish an Energy Conservation Program.

Strategy	Plans	Responsible	Resources	Timeline
Advance the knowledge of alternative transportation fuels, increasing their use, and reducing their cost.	<ul style="list-style-type: none"> ▪ Utilize the unique NC A&T combination of expertise in agriculture and environmental sciences, engineering, technology, and physical sciences to increase the amount of research into alternative transportation fuels. ▪ Use University vehicles as a conduit for transportation fuel interactions between the physical plant staff, faculty, students, and community. 	<ul style="list-style-type: none"> ▪ Vice Chancellor for Research and Economic Development. ▪ Provost and Vice Chancellor for Academic Affairs. 	<ul style="list-style-type: none"> ▪ New building at the Gateway University Research Park to support Energy and Environmental Research. (\$20-\$30 million) ▪ Two new faculty with transportation fuel related expertise. (\$150,000). ▪ Four graduate student scholarships per year. (\$120,000/year). 	By Fall 2009
Reduce the carbon footprint and energy operating costs of NC A&T, public, and residential buildings.	<ul style="list-style-type: none"> ▪ Use the Center for Energy Research and Technology (CERT) as a conduit for energy related interactions between the physical plant staff, faculty, students, and community. ▪ Operationalize the North Carolina Institute for Energy Security and Independence (IESI) that was established in 2007 by NC A&T State University, NC State University and Appalachian State University. 	<ul style="list-style-type: none"> ▪ Vice Chancellor for Research and Economic Development. ▪ Provost and Vice Chancellor for Academic Affairs. 	<ul style="list-style-type: none"> ▪ New building at the Gateway University Research Park to support Energy and Environmental Research. (\$20-\$30 million). ▪ New personnel for Center for Energy Research and Technology (full time director, administrative assistant, and two faculty with environment energy expertise). (\$300,000). 	By Fall 2009
Advance the knowledge of climate change.	<ul style="list-style-type: none"> ▪ Use the Waste Management Institute (WMI) as a conduit for environmental related interactions between the physical plant staff, faculty, students, and community. ▪ Utilize the unique expertise of the National Oceanic and Atmospheric Administration (NOAA) Interdisciplinary Scientific Environmental Technology (ISET) Center to increase the amount of climate change related research. ▪ Add concentrations to the Energy and Environmental Studies PhD program. 	<ul style="list-style-type: none"> ▪ Vice Chancellor for Research and Economic Development. ▪ Provost and Vice Chancellor for Academic Affairs. 	<ul style="list-style-type: none"> ▪ New building at the Gateway University Research Park to support Energy and Environmental Research. (\$300,000). ▪ Two new faculty with climate change expertise. (\$110,000). ▪ Four graduate student scholarships per year (\$120,000/year). ▪ Establish Endowed Chairs in Energy. (Combined Spangler Foundation / UNC / Private funds \$0-\$500,000 Private funds). 	By Fall 2010

G. Outreach And Engagement North Carolina A&T State University

UNC Tomorrow

4.7. Our University's Outreach and Engagement

Major Finding: *UNC should become more directly engaged with and connected to the people of North Carolina, its regions, and our state as a whole.*

Recommendations:

4.7.1. *UNC should apply, translate, and communicate research and scholarship to broader audiences.*

4.7.2. *UNC should develop a strategic plan for scholarly public service on each campus that is detailed and specific in definition and scope.*

4.7.3. *UNC should create a mechanism for applying research and scholarship to addressing significant regional and statewide issues.*

4.7.4. *UNC should communicate its resources and expertise to wider audiences.*

NC A&T State University Outreach and Engagement

A. Executive Summary

North Carolina A&T State University (NC A&T) is engaged in a number of programs, events and activities designed to extend its teaching, research and public service expertise to the people of North Carolina. Many of our activities are organized and closely connected to the University's overall mission and vision and others are not as well-organized and not designed to positively effect local programs in a coherent manner. Because we are in partnership with our citizens as a land-grant institution, we have a responsibility to address societal issues. Therefore, the following are proposed.

In addressing Recommendations 4.7.2 and 4.7.3, NC A&T will create a Center for Outreach, Engagement and Economic Development to strengthen, expand and bring structure to its outreach, engagement and economic development activities. The signature program within this Center will be called "Aggie Solutions." "Aggie Solutions" will be formally designed such that all campus entities will clearly define their outreach, engagement and economic development activities and will be held accountable for their work. As well, "Aggie Solutions" will have an accountability function that will allow internal and external audiences the ability to clearly evaluate the work being done on this campus.

In addressing Recommendations 4.7.1 and 4.7.4, NC A&T uses a variety of media to communicate excellence by its faculty, staff and students. The University's Office of University Relations routinely communicates with a wide-cross section of local, state and national media, stakeholders and constituents

through a bi-weekly newspaper, bi-weekly electronic newsletter, web sites, quarterly magazine, annual report, annual profile, and DVDs.

B. Existing Programs, Initiatives and Activities

1. Cooperative Extension.

The Cooperative Extension Program provides research-based information and educational programs to communities, families and individuals in North Carolina. Based within the School of Agriculture and Environmental Sciences (SAES), The Cooperative Extension Program plays a vital role in helping both SAES and the University to fulfill their broad commitment towards learning, discovery and engagement within the university, community, state and nation.

Current Cooperative Extension programs and outreach and programming efforts focus on three strategic priorities: improving the state's economic impact; promoting a safe and healthy environment; and improving the quality of life for the state's citizens. As the outreach and engagement arm of the University, the Cooperative Extension Program is distinct in that it operates both campus and county-based faculty and staff.

Specialists located on the campus develop and design educational programs; provide technical assistance, and train field faculty and others to deliver educational programs. They also assist small-scale farmers in evaluating innovative farm-based income opportunities and non-traditional enterprises. In addition, risk management, direct marketing, small farm equipment, farm safety and farm business management are other areas of focus. Programs for individuals and families are making a difference in the quality of relationships, abuse and neglect of children, financial literacy, food insufficiency and health. Educational programs designed to promote safe and healthy environments enable families and individuals to make informed decisions and adopt practices that positively impact their quality of life. Solving community issues requires leaders and volunteers who possess a variety of skill sets, which can be applied to community needs and concerns. Many limited-resource citizens and/or citizens in low-wealth communities are unfamiliar with community development processes and lack an awareness/understanding of the various community services available to assist with their economic progress.

The strengths of the University's Cooperative Extension Program include an approved plan of work at the state and federal levels with well-defined programs, initiatives, goals, objectives, inputs, outcomes, impacts, deliverables and an evaluation component. The plan of work is developed and implemented in partnership with the College of Agriculture and Life Sciences at North Carolina State University. The plan of work is assessed annually by the National Programs Leaders in the United States Department of Agriculture/Cooperative State Research, Education and Extension Service. The strengths of this program also include a talented pool of faculty, specialists and paraprofessionals (campus and field) and the integration of our mission areas into programs that make a difference for the citizens of North Carolina. Our mantra is "putting knowledge to work."

The obstacles and barriers that inhibit the success of the University's Cooperative Extension include the inadequacy of the financial resources that are needed to address the complex problems and challenges facing the State's citizens. The faculty and staff will continue to seek external funding through the competitive grants to address this resource shortage. As in the past, we will continue to collaborate with the North Carolina Extension Service at North Carolina State University to leverage resources. In addition,

we will need to strengthen and expand our collaboration with community based organizations and economic development agencies across the state.

2. Service Learning.

As NC A&T anticipated the need for general education and global readiness, the University engaged in a systemic review of its general education curriculum beginning in 2002. This review consisted of faculty commissions which examined best practices in general education from around the nation. Service learning was one of the best practices that was incorporated into the University's revised general education curriculum, entitled "University Studies." (Section 4.1 for more details of University Studies.) Service learning is a major national movement at every educational level, and is now a particularly powerful force in NC A&T undergraduate education that also contributes positively to its outreach and engagement efforts. Connecting academic study with community service through structured reflection is widely recognized as contributing to learning that is deeper, long-lasting, and more portable to new situations and circumstances. It engages students and faculty in solving problems within their schools and communities, such as academic studies or other types of intentional learning activities.

Existing Programs (Students):

- Civic and Service Education Program (C.A.S.E.) is a component of the University Studies curriculum that seeks to prepare students to be diverse, globally-engaged citizens by promoting learning through active participation. All students are required to complete 50 hours of service/experiential learning.
- The Honors Program faculties require freshmen to complete community service each semester. Students raise funds to purchase books and read stories for students at local elementary schools.
- The Division of Student Affairs facilitates the partnership of student organizations with community non-profit organizations, special programs and organizations for community service. The program is open to the public and is geared to the education of youth about Dr. Martin Luther King, Jr. and his vision.
- The Council of Presidents requires student organizations to participate in community service projects throughout the community. Each organization is required to perform 10 hours of service per semester. Currently, there are 126 recognized organizations.
- The Entrepreneurship Certificate Program places juniors and seniors in local businesses for cooperative education experiences or summer internships.

Existing Programs (Faculty):

- The University's Nursing Program provides annual health fairs at the local malls, which include screenings for high-risk behavior and chronic diseases.
- The Construction Management and Occupational Safety faculty and Health Department HUD project collaborates to offer training for local housing authority residents related to ownership counseling and preparation. Over 274 residents have participated in the program.
- The Youth Entrepreneurship Development Program promotes entrepreneurship to youth living in low-income households in Wilmington, North Carolina and surrounding areas. Faculty offer workshops related to converting a career idea into a business idea, researching an idea, analyzing the competition, and learning how to finance the idea.
- The International Trade Center faculty serve the public's needs especially that of small-scale farmers and small business owners in facilitating economic development through marketing of higher value-added products and services locally/regionally and nationally/internationally.

The greatest strength of the University's present service learning program is that it is required for all students. This means that each freshman cohort, which we project at a minimum of 1800 students, will

produce 1800 x 50 hrs = 90,000 service learning hours per graduating class that can be devoted to worthy projects in the Piedmont Region, and beyond. For example, we anticipate that students from a variety of majors could aid in helping pupils in underserved communities learn basic reading, mathematics, and science competencies. This would have the dual impact of bolstering the comprehension of the university students, who in the process of learning effective pedagogies for younger children, will incorporate some of those methods in teaching themselves. In addition, students from the School of Business and Economics could volunteer support services for fledgling businesses (such as accounting skills) or agriculture majors could help develop urban gardens to support basic nutrition programs in poor communities or urban food banks, engineering students can work on projects that help reduce energy waste in homes. In short, the only limit to the impact of student service learning is the imagination of the faculty and students involved in the projects.

The largest obstacle to the success of service learning at NC A&T is the lack of infrastructure in place to support it. National models of best practices regarding service learning show that campuses that have successfully integrated this component into the curriculum have an Office of Service Learning. The office is charged with monitoring all aspects of the student learning experience. At present we have no such office, and we don't have sufficient numbers of professionals on our campus (either in academic or student affairs) that have extensive experience with implementing service learning programs. Clearly to implement such a vision, funds must be earmarked to build and staff this office. In addition, the faculty members of University Studies have been charged with offering the academic side of the service learning experience. At present, this faculty is spread too thinly to develop and monitor additional service learning projects. Therefore, two recommendations follow: first, the faculty of University Studies need to be expanded so it can more effectively meet its general education charge (this supports the recommendation of the Global Readiness Working Group) and secondly it is our recommendation that service learning requirements be added to all majors, and that this would allow faculty from across the campus to help support the expansion of service learning. At present, the 50 hour service learning requirement is a minimal effort, and more total hours could be made available to the community if majors added this as a part of their curriculum.

3. Economic Development

The Interdisciplinary Center for Entrepreneurship and E-Business (ICEEB) supports educational, research and outreach programs that promote entrepreneurial activity and economic development in the Triad Region. The focus is on wealth creation through entrepreneurial activity. The ICEEB:

- Provides academic and experiential learning experiences for students interested in individual or corporate entrepreneurship and for local entrepreneurs interested in improving their businesses,
- Offers an Entrepreneur-in-Residence program that includes mentoring and counseling to assist students in starting businesses,
- Conducts an undergraduate and graduate business plan competition,
- Collaborates with the various schools and colleges on campus to offer the Certificate in Entrepreneurship, Entrepreneurial Internship, and Entrepreneurship Lecture Series,
- Collaborates with community organizations to offer entrepreneurship training, franchise education, and QuickBooks Accounting and other seminars for local entrepreneurs.

The strengths of this program, headquartered in the nationally accredited School of Business and Economics, are its potential for creating a vibrant university-wide entrepreneurship program; its collaboration with both on-campus and external organizations; its partnership with the School of Agriculture and Environmental Sciences and the School of Technology; and its growing academic program, which includes the recently approved Entrepreneurship Concentration for management majors. The effectiveness

of the programs and activities of the ICEEB is assessed by specific and measurable criteria, including but not limited to, participants' surveys; number and quality of programs and activities developed and conducted; extent of collaboration. The evaluation outcomes are integrated into each program's planning and budget processes. The challenges are inadequate funding and the lack of support staff. NC A&T has been, and continues to be, a significant player in the economic development of the region. Through the ICEEB, the University will create a culture that supports entrepreneurship and economic development and will inspire students to pursue entrepreneurial careers.

C. New Programs, Initiatives and Activities

1. Create a Center For Outreach, Engagement and Economic Development (COEED). North Carolina A&T State University will establish a Center for integrating outreach, engagement and economic development in an exemplary mix for the expressed purpose of being more directly engaged and connected to the people of North Carolina, its regions and our state as a whole. As the signature program in the Center for Outreach, Engagement and Economic Development, "Aggie Solutions" will include five components: University initiatives; tools for success; departmental/unit outreach plans; an electronic data collection system; and, marketing.

- University Initiative – University Initiatives will outline, for internal units, the university's goals and objectives for outreach, engagement and economic development. This will allow departments/units to participate in those events and activities that showcase the university's strengths and expertise.
- Outreach and Engagement Toolkit – All department/units will have an Outreach and Engagement Toolkit to assist in providing effective outreach and engagement activities. This toolkit will initially explain the mission and function of a land-grant institution and then offer clear examples of outreach and engagement. This will allow the University to use its resources effectively and not to duplicate existing programs and activities. This toolkit will also contain curricula such as "Community Voices" and "Voices Reaching Visions," both programs developed by The Cooperative Extension Program. As well, departments/units will use the Kellogg Seven Part test to define if it is indeed an engaged institution. These tools help faculty and staff work effectively and smartly with communities.
- Outreach Plans – Aggie Solutions will require each department and unit to develop annual Outreach Plans. These plans will include prioritized outreach and engagement activities that build on the individual unit's strengths and expertise. These plans will be captured in a university-wide database and all faculty and staff will have their work in this arena as part of their overall evaluation system.
- Electronic Database – All outreach and engagement activities will be collected in an electronic database. This database will be a collection hub with easy search functions available to internal and external audiences. This database will make it efficient to collect data for reporting purposes. It will also allow citizens to see what impact the university expertise has on a community.
- *Marketing* – *Once the materials are collected, the University will produce some type of Annual Report to the People to showcase and highlight the work being done on an individual campus. This report will be available in a number of mediums.*

The Center for Outreach, Engagement and Economic Development will have three offices: **(1A) Office of Service Learning; (1B) Office of University-Community Partnerships; and, (1C) Office of Economic Development.**

1A. Office of Service Learning.

The Office of Service Learning will strengthen and expand the service learning components of University Studies and the Office of Career Services and Experiential Learning. Service learning is a major national

movement at every educational level, and is a particularly powerful force in NC A&T undergraduate education. Connecting academic study with community service through structured reflection is widely recognized as contributing to learning that is deeper, long-lasting, and more portable to new situations and circumstances. It engages students and faculty in solving problems within their schools and communities, such as academic studies or other types of intentional learning activities.

Objectives:

- Promotes learning through active participation in service experiences,
- Provides structured time for students to reflect by thinking, discussing and/or writing about their service experience,
- Provides an opportunity for students to use skills and knowledge in real-life situations,
- Extends learning beyond the and into the community, and
- Promotes an opportunity for faculty to use skills and knowledge to solve problems adversely affecting the citizens of North Carolina

Outcomes:

- Increased involvement of students and faculties in helping to determine and meet real, defined community needs
- Offers opportunities for students and faculties to engage in problem-solving
- Stronger partnerships with community based organizations
- Increased number of students and faculty participating in community programs and activities
- Increased number of community forums discussing important community issues
- Improved skills associated with teamwork and community involvement and citizenship
- Improved student abilities associated with integrative learning, inquiry-based learning and critical thinking from an interdisciplinary perspective

Existing Model. Several models are discussed in the literature, e.g. University of North Carolina-Chapel Hill, North Carolina State University, Iowa State University and The Ohio State University.

Required Collaboration. This program offers many opportunities for the University to collaborate with community based organizations, public schools, and public agencies to help to address the problems and issues that they are confronted with day-in and day-out.

1B. Office of University-Community Partnerships.

The Office of University-Community Partnerships conveys the idea of a “communiversity” and will strengthen and expand the University programs to assist and partner with local and statewide community based organizations and agencies, including schools and community colleges. This Office connects the academic life of the University to the community. This Office will work closely with faculty, students, and community organizations to develop programs and service projects that facilitate dialogue on important community issues and address the problems of the community. “Aggie Solutions” will be a critically important program of this office. In addition, this Office facilitates the collaboration between the Cooperative Extension Program and the Small Business Technology and Development Center (SBTDC) programs. Though each program will continue to work independently, this program will provide additional opportunities for providing more focused and more effective economic development services to businesses or communities. Its collaborative focus will be similar to the traditional Industrial Extension Program. Sometimes the economic development needs of a business or community may require multi-agency assistance, and rather than each agency working alone, it is more effective for the two agencies to work

together, develop a plan, combine resources and use a team approach to deliver the services necessary to help the business succeed or promote economic development in the community.

The purpose of the Office is to facilitate the formation of campus-community partnerships that enable students, faculty and the community to build strong communities. This Office will also foster increased collaboration and public service activities with P-12 schools, and between Cooperative Extension and the SBTDCs.

Objectives:

- Provide leadership in exploring solutions to community problems.
- Monitor issues that might benefit from university involvement.
- Foster collaborative partnerships between the university and the community.
- Encourage open dialogue between the University and the community.
- Foster collaborative partnerships and public service activities with P-12 schools.
- Encourage collaboration between the Cooperative Extension and the SBTDC that serves businesses—similar to the Industrial Extension program.
- Provide multi-agency assistance to businesses and communities using a team approach.
- Leverage the strengths of the Cooperative Extension and SBTDC to provide an improved economic development program.
- Provide a more effective economic development assistance program with Cooperative Extension and SBTDC as a team, when appropriate, rather than individually

Outcomes:

- Improved relationship between University and the community
- Increased number of community leaders participating in University programs
- Increased faculty research output as a result of the various University and community partnerships
- Increased number of community forums discussing important community issues
- Increased number of public service activities with P-12 schools
- Up-to-date and comprehensive faculty expertise directory to share faculty/staff expertise with the community
- Improved performance of business and community organizations as a result of the collaborative program
- Wider dissemination of information and models for economic development
- Increased number of successful new business formations
- Increased cost effectiveness of economic development programs

Existing Model. The Cooperative Extension Service at North Carolina State University and the Cooperative Extension Program at North Carolina A&T State University, proven and tested models, will serve as our model in terms of programming and collaboration. Relative to University-Community partnerships, several models are discussed in the literature, e.g. Emory University and the University of Virginia.

Required Collaboration. Collaboration with North Carolina State University's Cooperative Extension Service and the Industrial Extension Service is critical to the implementation of this initiative. There will also be opportunities for the University to collaborate with the SBTDCs, community based organizations, public schools, and public agencies.

1C. Office of Economic Development.

The Office of Economic Development will develop and implement an economic development plan and coordinate the University's community and economic development initiatives, programs and activities at NC A&T. This Office will provide a clearly designated point of contact and easy navigation to the appropriate offices within the University; "Aggie Solutions" will be a critically important program of this office. This Office will also establish an Economic Development Advisory Board, a Minority Entrepreneurship Program, and will collaborate with the Institute of Community and Economic Engagement at the University of North Carolina at Greensboro. The Office of Economic Development will be the central point of contact to the economic development resources at NC A&T. It provides leadership for the University's partnership with external stakeholders by preparing and implementing an economic development plan and coordinating the University's economic development activities.

The purpose of the Office is to connect business, government, and community organizations to the expertise and resources of the University to improve the Triad region and the state of North Carolina.

Objectives:

- Facilitate technology transfer, innovative business development and economic growth in the Triad region and the state.
- Conduct applied research and analyses and disseminate to local and state leaders.
- Implement a minority entrepreneurship development program.
- Support faculty research focusing on innovation, new venture creation, and growth.
- Facilitate the linking of the University faculty expertise and research capabilities with private sector business needs.

Outcomes:

- Increased number of partnerships between University and economic development agencies
- Improved performance of business and economic development agencies as a result of University engagement and assistance
- Increased emphasis by University faculty on applied research and other analyses that benefits leaders of economic development agencies
- Increased number of minority and women owned businesses as a result of the efforts of the Office of Economic Development
- Increased faculty research in the area of community economic development

Existing Model. There are several models in universities throughout North Carolina, e.g. North Carolina State University, Office of Extension, Engagement, and Economic Development; UNC Chapel Hill, Office of Economic and Business Development/UNC Center for Competitive Economies; and East Carolina University, Center for Economic Development and Community Engagement.

Required Collaboration. Several programs of the Office will require collaboration with other UNC universities (i.e. University of North Carolina-Greensboro, Winston Salem State University, North Carolina State University, P-12 schools, economic development stakeholders, business and industry partners, and agencies interested in being engaged with communities. The state's two land grant universities (North Carolina State and NC A&T) are key players in economic development in the state, particularly in rural regions.

Research Activities. Faculty, individually and in collaboration with economic development agencies, will conduct applied research, action research, engagement research and other analyses to benefit the community. Also, the Office will establish a working group on economic development including faculty interested in scholarly research in economic development to improve the competitiveness of both businesses and the community.

2. Establish a NC A&T Research Foundation. Establish a NC A&T Research Foundation with the assistance of the UNC Office of the President for more effective commercialization of technology, management of new venture creation and investment and expansion of corporate and federal contract opportunities. This wholly-owned, non-profit subsidiary of NC A&T State University will report to the Vice Chancellor for Research and Economic Development and will encompass the current staff and activities of the Office of Technology Transfer.

Leveraging Existing Communications Resources

Aligned with the specifics of UNC Tomorrow Recommendations 4.7.1 and 4.7.4, the Center for Outreach, Engagement and Economic Development, NC A&T currently uses a variety of media to communicate excellence by its faculty, staff and students. The University's office of University Relations routinely communicates with a wide-cross section of local, state and national media, stakeholders and constituents through a bi-weekly newspaper, bi-weekly electronic newsletter, quarterly magazine, annual report, annual profile, and DVDs. The Office of University Relations has a joint website with the University radio station providing NC A&T's information via public affairs programming. WNAA 90.1 FM (10,000 watts) broadcasts 24/7 across the Piedmont Triad and southern Virginia. As well, information is posted on the University's many websites and communicated in the student-operated newspaper, which is also available in an electronic format. In addition, The School of Agriculture and Environmental Sciences (SAES) has a communications unit designed specifically to communicate the developments and innovations from the Agricultural Research Station and the Cooperative Extension Program. This is done primarily through the use of the SAES websites (which generates more than 1 million hits a month with visitors staying an average of 16 minutes), a research magazine, entitled Re: search and an annual report to the people that highlights the work done by the Cooperative Extension Program. The University's Division of Research and Economic Development also has a communications arm and they produce routine media releases about research accomplishments and they also produce a research magazine that showcases University-wide research efforts.

D. Programs, Initiatives and Activities that Should be Combined or Eliminated

The underlying goal of this Section of the UNC Tomorrow Plan is to combine all existing programs, initiatives and activities associated with "Economic Transformation and Community Development" and Outreach and Engagement" into a "Center for Outreach, Engagement and Economic Development (COEED). The details of the COEED are in the attached table to this Section G. The University has no programs, initiatives and activities associated with Outreach and Engagement that should be eliminated.

E. Implementation Strategies, Plans and Timelines

(See attached table for details.)

NC A&T State University
G. Outreach and Engagement – Implementation Strategies, Plans and Timelines

Priority 1. Create a Center for Outreach, Engagement and Economic Development (COEED).

<i>Strategy</i>	<i>Plans</i>	<i>Responsible</i>	<i>Resources</i>	<i>Timeline</i>
Center for Outreach, Engagement and Economic Development (COEED). (matching Section 4.5 – Economic Transformation and Community Development).	Create the COEED to develop a program that will bring structure of the University’s outreach, engagement and economic development activities called “Aggie Solutions.” “Aggie Solutions” will include five components: University initiatives, tools for success, departmental/unit outreach plans and electronic data collection system and marketing. In addition, the COEED will have three offices: Service Learning; University-Community Partnerships; and Economic Development.	<ul style="list-style-type: none"> ▪ Provost. ▪ Vice Chancellor for Research and Economic Development. ▪ Deans, Schools and Colleges. 	<ul style="list-style-type: none"> ▪ Director; Administrative Assistant; Data base manager. (\$500,000). ▪ State and grant funds. ▪ Cooperative Extension base funds. 	Fall 2009

1A. Office of Service Learning

Office of Service Learning (matching A1. Global Readiness: 21 st Century Skills).	Create an Office of Service Learning within COEED to strengthen and expand the service learning components of University Studies and the Office of Career Services and Experiential Learning.	<ul style="list-style-type: none"> ▪ Provost. ▪ Deans Schools and Colleges. ▪ Director, Office of Career Services and Experiential Learning. 	See budget for COEED.	Fall 2009
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1B. Office of University-Community Partnerships.

Strategy	Plans	Responsible	Resources	Timeline
Establish the Chancellor 's Distinguished Community Service Awards.	Develop criteria for the various categories of awards, to be given annually, and appoint a campus-wide committee to manage the awards process.	Director, Center for Outreach, Engagement, and Economic Development.	State funding and sponsorships (\$14,000).	Fall 2009
Establish Chancellor and Community Leaders Monthly Breakfast.	Utilize the proposed new Office of Economic Development in the Center for Outreach, Engagement and Economic development and the Continuing Studies and Professional Development staff to plan and manage the symposium.	Director, Center for Outreach, Engagement, and Economic Development.	Sponsorships (\$6,000).	Fall 2009
Establish the Community Outreach Academy.	Collaborate with local community organizations to identify interested community leaders and develop a high quality program.	Director, Center for Outreach, Engagement, and Economic Development.	(\$10,000).	Fall 2009
Community and business leaders as adjunct faculty in the University's schools and colleges.	Collaborate with the local Chamber of Commerce and other business and economic development organizations to market the program and attract qualified people.	<ul style="list-style-type: none"> ▪ Director, Center for Outreach, Engagement, and Economic Development. ▪ Deans, Schools and Colleges. 	State funding and corporate sponsorships (\$100,000).	Fall 2009
Establish a Community Fellows Program.	Collaborate with local community organizations to identify interested community leaders and develop a high quality program.	Director, Center for Outreach, Engagement, and Economic Development.	State funding and sponsorships (\$20,000).	Fall 2009
Develop a Faculty Expertise Directory.	The proposed office of Economic Development in the Center for Outreach, Engagement and Economic Development will work with the University's Web Master, to establish a very efficient—easily searchable—Web site that shares faculty/staff expertise with the community.	Director of the Office of Economic Development.	State funding (\$10,000).	Fall 2008
Faculty groups to facilitate community dialogue on critical community issues.	Monitor community issues that might benefit from University involvement and schedule community forums.	Director, Center for Outreach, Engagement, and Economic Development.	Sponsorships (\$10,000).	Fall 2009
Establish a University-Community Commission.	Monitor community issues that might benefit from University involvement and schedule community forums.	Director, Center for Outreach, Engagement, and Economic Development.	Sponsorships (\$10,000).	Fall 2009
Reappointment, Tenure and Promotion.	Establish, through the Office of the Provost, a high level faculty committee to include Deans and Department Chairs, to ensure that Reappointment, Tenure and Promotion processes properly rewarded faculty for community engagement.	The Provost's Office.	State funding (\$20,000).	Spring 2009
Use the Small Business Technology Development Center (SBTDC) proposed state-wide Rural Business Development program.	Use the SBTDC state-wide network to provide economic development programs and services to new and emerging businesses throughout the state, especially in rural and underserved areas.	SBTDC Directors and staff.	State Funding and Grants (\$150,000).	Fall 2009

1B. Office of University-Community Partnerships (Cont'd)

Strategy	Plans	Responsible	Resources	Timeline
Use Applied Survey Research Lab.	Increase the promotion of the lab services to members of the local community, thus making a more effective vehicle for economic development.	Lab Director.	Grants (\$20,000)	Fall 2008
Use NC A&T International Trade Center to provide technical assistance in business and economics to small farmers and small businesses.	Expand services of the Trade Center to increase collaboration with local economic development agencies to better serve local and regional businesses.	Center Director.	State Funding and Grants (\$200,000).	Fall 2008
Use Cooperative Extension Program for Alternative Agriculture Research; Family and Consumer Sciences; Community Voices, Voices Reaching Vision and 4-H.	<ul style="list-style-type: none"> ▪ Use the current Cooperative Extension system, in all 100 counties, to share information and development models for rural and under-served communities. The programs should involve rural families in decision making, economic development, and help them develop solutions for such challenges as parenting, financial management, and health and nutrition. ▪ Collaborate with NC State University to implement this strategy. 	Dean, School of Agriculture and Environmental Sciences.	<ul style="list-style-type: none"> ▪ State Funding (\$300,000). ▪ Cooperative Extension Base funding. 	Fall 2008

1C. Office of Economic Development.

Strategy	Plans	Responsible	Resources	Timeline
Develop Minority Entrepreneurship Program in the Interdisciplinary Center for Entrepreneurship and E-Business (ICEEB).	Collaborate with on campus and external economic development programs to design and deliver a high quality program for women and minorities interested in starting a business.	Director of ICEEB in collaboration with Office of Economic Development.	State Funds and Grants (\$50,000).	Fall 2009
Annual Summer HS Program in Transportation, Entrepreneurship, etc (Students, Teachers & Counselors).	Using the Transportation HS Summer Program as a model, establish similar programs in Entrepreneurship, Technology, etc.; promote programs through the cooperative Extension and SBTDC network.	Relevant Department Chairs/Deans.	State Funding (\$250,000).	Spring 2009
Establish Annual Economic Development Symposium.	Utilize the proposed new Office of Economic Development in the Center for Outreach, Engagement and Economic development and the University's Continuing Studies staff to plan and manage the symposium.	Director of the Office of Economic Development.	State Funding and sponsorships (\$10,000).	Fall 2009
Conduct University-wide Economic Development Study.	Appoint a committee of faculty and administrators to conduct the study and present the finding within a six-month period.	Director of the Office of Economic Development.	State Funding and sponsorships (\$50,000).	Fall 2008
Develop Faculty Expertise Database/Website.	The proposed office of Economic Development in the Center for Outreach, Engagement and Economic Development will work with the University's Web Master, to establish a very efficient—easily searchable—Web site that shares faculty/staff expertise with the community.	Director of the Office of Economic Development.	State Funding (\$10,000).	Fall 2008
Create Economic Development Advisory Board.	Establish governing policies and procedures and appoint the initial Board to include members of the University, the business community and other community leaders.	Director of the Office of Economic Development.	Sponsorships.	Fall 2008

Priority 2. Establish a NC A&T Research Foundation.

Strategy	Plans	Responsible	Resources	Timeline
NC A&T Research Foundation (will encompass current Office of Technology Transfer).	<ul style="list-style-type: none"> ▪ Conduct a feasibility study with startup costs. ▪ Obtain UNC-GA approval ▪ Identify funding sources 	Division of Research and Economic Development	<ul style="list-style-type: none"> ▪ Feasibility study, start-up salaries and infrastructure. ▪ State and university funds. \$4,000,000. 	Summer 2009

New Facilities and Academic Programs Addressing UNC Tomorrow Findings North Carolina A&T State University

A. Executive Summary

North Carolina A & T State University (NC A&T) believes there are several facilities and academic programs that are aligned with several of the UNC Tomorrow Findings and Recommendations. This section will address these facilities and academic programs.

B. Facilities

1. New General Academic Classroom Building.

This new facility will house the University Studies and International Programs faculty and staff. It will also provide some much needed classroom space with state-of-the-art technology for many of the UNST courses. The added classrooms will allow us to provide more sections of freshmen and sophomore classes increasing our capacity to handle larger freshmen classes. This facility will directly affect our ability to meet the needs defined in the following findings:

- A1 Global Readiness: 21st Century Skills
- A2 Global Readiness: Global Competitiveness
- B Access to Higher Education

This building is being designed at present, but construction funds have not been allocated.

2. Joint Nanoscience and Nanoengineering Facilities.

In order to meet the state's increasing need for a well-educated, prepared workforce in nanoscience and nanoengineering, North Carolina Agricultural and Technical State University (NCA&TSU) and The University of North Carolina at Greensboro (UNCG) have received permission from the UNC Board of Governors to establish a Joint School of Nanoscience and Nanoengineering (JSNN). This joint initiative, to be located on the South Campus of the Gateway University Research Park, will build on the strengths of the two universities to offer cross-disciplinary masters and doctoral programs, and to drive research and economic development in Greensboro, in the Triad, in North Carolina and beyond. It will shape the economic future of Greensboro and position it at the cutting edge of some of the most exciting developments in the sciences and engineering in the twenty-first century. For example, the purpose of the School is to train scientists in various nanotechnology areas including nanobioengineering and nanobiosciences, drug design and delivery, genetic screening, biosensors, biotechnology, surface engineering, energy, environmental improvement, agricultural improvements, and toxicology.

The JSNN will train students to conduct basic and applied research in nanoscience and nanoengineering. It will offer a joint interdisciplinary Ph.D. degree and a joint professional science master's degree (M.S.), strengthen the representation of nanoscience and nanoengineering in undergraduate and P-12 education, provide training for scientists and engineers already in the work force, and engage in activities that influence economic development globally. These programs will link to the entrepreneurial activities at both campuses to better transfer innovations to practice. The interdisciplinary Ph.D. program in Nanoscience will have tracks or concentrations to allow for areas of research specialization. The Professional Science Master's program will target students with strong backgrounds in science or engineering to prepare them for positions in nanoscience or nanoengineering research, development, or manufacturing companies.

JSNN Alignments with UNC Tomorrow Findings and Recommendations.

- **Section B. Increasing Access to Higher Education.** Undergraduate courses relevant to the research foci of JSNN will be developed by faculty at the JSNN and departments at the partner universities. Faculty at the JSNN and departments at NC A&T and UNCG will participate in teaching these courses and supervising undergraduate research/senior projects. Successful graduate programs at NCA&T and UNCG who have taken these courses will be accepted into a graduate program at JSNN. The joint Ph.D. and professional master's program faculty will collaborate with community colleges to develop short-term worker retraining programs in the subject areas of relevance to the JSNN. Creative curricular arrangements such as 3+2 programs will also be available. The JNSS will develop nanoscience programs for P-12. Key personnel will be hired for outreach and engagement to work directly with elementary, middle and high school teachers to bridge gaps and create opportunities for students and teachers. These will include tours, class visits, electronic mentoring, internships, and teacher workshops. Opportunities to conduct summer courses for P-12 teachers and to help them integrate nanobioscience into the P-12 curriculum will also be implemented.

- **Section D. Economic Transformation and Community Development.** The JSNN will shape the future of Greensboro and the Piedmont Triad by positioning these areas at the cutting-edge of some of the most exciting developments in the sciences and engineering in the 21st century. Nanotechnology has the potential to create entirely new industries as well as greatly affect the operation of existing ones. It is anticipated that the synergy created by housing faculty and students affiliated with the JSNN and nanotechnology centers in one place will build on the strengths of the partner universities and will produce a venue for educational and economic development in the Piedmont Triad and beyond.

- **Section E. Health.** The JSNN will study the proteins responsible for intracellular movement, key components in the synthesis of products with new sensing and energy-transfer capacities. Nanoscale transport of single molecules holds the promise of highly improved techniques for drug delivery to specific sites in the body.

- **Section F. Environment.** The JSNN will focus on the impact of nanotechnology on the environment, the use of nanomaterials to address pollution, and ethical and social considerations arising from the applications of nanoscience.

- **Section G. Outreach and Community Engagement.** The JSNN will be strategically positioned to create, through research and technology transfer, mechanisms for applying, translating and communicating nanotechnology applications to the Greensboro and Piedmont Triad.

JSNN Timeline. The General Assembly has appropriated \$50 million in non-recurring capital funding to construct the JSNN building, \$8 million in non-recurring equipment funding, and \$1.4 million in recurring funding for operating costs. An additional \$2.9 million in recurring funding for operating costs has been included in the 2008-09 budget priorities and submitted to General Administration. Requests to Plan the PhD and MS degrees in nanoscience have been reviewed and approved by the Graduate Council of UNC. A Management Agreement, which addresses mission and organizing principles, governance, administration, the dean and faculty, curriculum/degrees, support services, contingencies, and amendments/modifications has been written and approved/signed by the NC A&T and UNCG Chancellors. The search for a founding dean is underway and being coordinated by a professional search firm, and finalists has been identified for campus interviews. It is anticipated that a founding dean will be in place during the summer of 2008.

JSNN Necessary Resources. The current level of recurring operating funding is insufficient to support the personnel and programs necessary to operate the JSNN. Increased appropriations will be necessary over the next three years in order to attain the original request for recurring operating funding of \$6.9 million. (Request to Establish NCA&T/UNCG Joint School of Nanoscience and Nanoengineering, March 5, 2007)

3. Joint Data Center

UNCG and NCA&T have several collaborative initiatives that promise great benefits for the Triad and the State. The two universities are using science and technology to boost economic development in the region and State while at the same time strengthening the two universities. The JSNN above is one, and the second large science technology collaboration is the UNCG/NCA&T Joint Primary Data Center. Both will be located at the Gateway University Research Park South Campus, and both will strengthen the Park's ability to recruit and grow new business.

NCA&T and UNCG have begun an initiative to build a Joint Primary Data Center (JPDC) at Gateway Park South Campus, the campus targeted for science and technology expansion with major benefits for regional and statewide economic development. UNCG and NCA&T are both classified as "Doctoral/High Research Activity" Universities, and both need new, larger data centers. As their research and administrative needs increase, the two Research Universities will need increased information technology processing capacity. In addition, the Gateway University Research Park needs a strong data center to meet the needs of facilities to be located there.

UNCG's campus computing needs are projected to outrun the capacity of its current and planned data center renovations in 2011. Neither of the existing data center facilities on the UNCG campus is built to Tier III data center standards for reliability and availability. Both existing data centers are located on the UNCG campus and do not have the geographic diversity required for proper disaster resistance.

NCA&T faces the same institutional challenges, further exacerbated by the technology-intensive demands of an engineering curriculum. In addition to the issues mentioned above with regard to the availability and reliability of the current campus data centers, as well as the need for geographic diversity among the campus data centers, NCA&T is running out of data center capacity today.

The goal of this collaboration is to provide a robust and secure computing environment that supports critical enterprise technology services at both campuses and at the Gateway Park South Campus in the most cost effective and efficient manner possible. This partnership allows both Universities to leverage skills and resources on each campus to collectively advance both institutions farther faster than what can be achieved by attempting to meet each campus' urgent Data Center needs separately.

Joint Data Center Connections to UNC Tomorrow Components

- **Section A. Global Readiness:** In September 2007, UNCG Information Technology Services conducted a national survey of all of the Universities across the country with active nanoscience/nanoengineering degree and research programs, requesting detail regarding the backbone network infrastructure they had deployed to support these research facilities. 42% of those surveyed responded, and 100% of the respondent programs were supported by a 10Gb campus network backbone infrastructure, with 1Gb network connectivity to the research facility.

The computing intensive research activities at the Joint School of Nanoscience and Nanoengineering will

have the same network connectivity requirements as other schools. Providing the state of the art network and data center infrastructure at the South Campus will ensure that the appropriate level of computing resources is available for faculty to be globally competitive and perform cutting-edge research activities that are relevant and significant.

▪ **Section D. Economic Transformation:**

The Gateway Park is a joint UNCG/NCA&T venture, and its South Campus soon will have research-focused buildings for the U.S. Department of Agriculture and the UNCG/NCA&T Joint School of Nanoscience and Nanoengineering. Powerful data center and networking infrastructure are requisite in drawing research intensive activities to the South Campus. The JPDC will accelerate the growth of the Gateway Park South Campus, the two universities, the Triad, and the State.

Joint Data Center Responding to the needs of our State:

Development of the JPDC addresses head on the commission's directive to examine our missions in light of State and regional needs from a "system" perspective so that the programs and resources of all institutions serve the State and its regions in a manner that complement each other, maximize resources, and avoid unnecessary duplication.

A data center houses the most important and most costly information technology resources to support academic and administrative activities. Because of the power, air conditioning, and security requirements, these centers are expensive to build and operate.

The JPDC has been identified as a "PACE" cost-avoidance initiative. (See Section H. 5.6 and Appendix on PACE.) Building appropriate data centers on the already space-constrained campuses of UNCG and NCA&T, plus the cost of building an appropriate center at the Gateway Park South Campus – three separate data centers - would cost \$102 million. Building a single, large, robust data center at the South Campus would cost \$46 million – saving the State \$56 million, plus undetermined long-term cost-avoidance in annual operating costs.

Joint Data Center Timeline

Chancellors Battle and Sullivan each have listed \$23 million on his/her university's Capital Facilities Priority List, and will seek funding of the design portion of the \$46 million JPDC in the 2008 General Assembly session and the remainder in the 2009 session. If the project is funded by the legislature on this schedule, we anticipate that design will occur in 2008 – 2009, followed by construction from 2009 – 2012, with an anticipated move-in date of August 2012.

An Operating Plan for the JPDC was signed by Chancellors Battle and Sullivan in October 2007. Between now and 2012, the two universities will determine how to implement the staffing and operating processes and expenditures required for the JPDC.

Joint Data Center Necessary Resources

Most staff and operating costs will be provided by the two universities, but the Operating Plan identified a small number of new staff necessary at startup. One-time funds will be required to cover startup costs, including initial licensing, furniture and fixtures. \$380,000 in recurring annual operating funds will be required to support the joint personnel in the JPDC Operating Plan.

4. New Biology Building

The Department of Biology is committed to preparing students to become competent, competitive, and confident leaders who will excel in the global life sciences and research. Specifically, its programs are designed to enhance the intellectual and creative abilities of all of the individuals it serves by fostering life-long learning, persistent inquiry, and self-evaluative leadership. Degrees offered: Bachelor of Science in Biology; Bachelor of Science in Secondary Education; Master of Science in Biology; and, Masters of Arts in Teaching (Biology Concentration).

The Department of Biology is currently housed in Barnes Hall. Barnes was constructed in 1967 with classrooms, laboratories and a suite of office spaces. At the time of its construction, NC A&T was not a high research institution. However, since that time, there has been a significant increase in faculty initiated research activities. There also has been a tremendous need to increase student research and multi-million dollar grants have been received by the department to engage students in research. The department currently lacks adequate facilities to house faculty research, undergraduate research or research required to support its masters degree program. Barnes Hall is currently being renovated and the Department of Biology is temporarily housed in Hines Hall, the old chemistry building. Hines Hall is woefully inadequate to house a modern biology program, with few research laboratories, few classrooms and inadequate office space to house faculty, research and training program offices. When the Biology Department moves back to Barnes, it will have lost more than 3,000 sq feet of classroom and research space in order to install a heating and cooling system.

The Department of Biology is in need of a new facility that provides adequate classrooms, laboratories for research and teaching, student gathering spaces, and office spaces needed for faculty and staff necessary for program development and implementation. The new facility will provide some much needed classroom space with state-of-the-art technology for many of the Biology courses. The facility will include a seminar room, auditorium, and a video-conferencing center equipped with state-of-the-art computer and audiovisual technology. This facility will provide several modern research laboratories to support faculty and student research in molecular biology, biotechnology, microbiology, virology, ecology, and other biological sciences. The facility will have available a computer room with printers and scanners for specific student needs. In support of research, the facility will have a suite with transmission and scanning electron microscopes, dark rooms, cell tissue culture laboratory, plant growth chamber, a cold room and greenhouse.

This facility will directly affect our ability to meet the need defined in the following findings:

- A1. Global Readiness: 21st Century Skills
- A2. Global Readiness: Global Competitiveness
- B. Access to Higher Education
- C. Improving Public Education
- E. Health
- F. Environment

This building is being planned at present, but no construction plans has been approved nor have funds been allocated.

C. Academic Programs

The following is a listing of academic degree programs that are under consideration at NC A&T.

1. Joint School of Nanoscience and Nanoengineering.

(See information above under Facilities).

2. Ph.D. in Computational Science and Engineering (CSE)

In the Spring of 2005, North Carolina A&T State University (NC A&T) started a new interdisciplinary master's program in Computational Science and Engineering (CSE). The program is highly interdisciplinary and draws expertise and resources from various disciplines across most of the University, and it is currently one of three interdisciplinary graduate programs in the School of Graduate Studies. It offers an interdisciplinary curriculum combining applied mathematics, high performance parallel and scalable computing, scientific modeling and simulation, and data visualization within the domain areas such as physical sciences (physics and chemistry), mathematics, life sciences, technology and business. In addition, the curriculum stresses not only science of discovery, but the application of science to technology and implementation. Hence, there is a component of engineering science, engineering applications, and technology within the CSE program which is missing in the pure sciences.

Since inception of the graduate program, more than 26 students have enrolled and 12 of them to date have received their MS degrees in Computational Science and Engineering. These students came from various undergraduate degrees in areas that include mathematics, physics, business, technology, engineering, computer science, astronomy, and veterinary science. All twelve graduates are currently employed in major industries that include: Cummins, General Motors, Ford, Shell Oil, Lockheed Martin, IBM and NAVAIR or in government. All are employed in capacities that relate strongly to skills acquired as part of their MS CSE program. Furthermore, research within the CSE program has so far grown to more than 2.5 million dollars in external funding in the first two years.

In the Fall of 2006, NC A&T received approval for planning a PhD program in Computational Science and Engineering. It is expected that the proposed program will begin in the Spring 2009 semester, with an initial enrollment of four full time and two part-time students.

3. BS, MS and Ph.D. in Public Health

The establishment of a Public Health Program at NC A&T will take advantage of the University's current public health-related initiatives (i.e. the Certificate Program in Health Disparities, the School of Nursing, the School of Agriculture and Environmental Sciences, and the University Studies Program) to offer undergraduate (BS) and graduate degrees (MS and PhD) in public health.

The principal objectives of the Public Health Program will be to provide students with balanced and thorough curricula that will cover the knowledge, skills and competencies required for them to function optimally in local, state and national public health agencies and organizations. The proposed curricula will contain didactic and experiential opportunities to prepare students for the practice of public health and for conducting research in practice-based settings.

The development of the proposed program is predicated on studies showing that although the need for public health programs and resources has increased, there is a growing public health workforce shortage at the local, state and national levels. This shortage of public health professionals is most pronounced in the

areas of epidemiology, environmental health sciences, public health nursing, health education and laboratory sciences.

Although this shortage is occurring in all areas of the country, rural states and other underserved areas are disproportionately impacted by this shortage of public health workers. The number of public health workers declined from 220 per 100,000 Americans in 1980 to 158 workers per 100,000 Americans in 2000, and this decline is expected to continue. In fact, in the next few years, state and federal public health agencies could lose up to half of their workforce due to retirement. Additionally, public health agencies report high turnover rates among public health personnel. Compounding the problems related to high turnover and retirements is the fact that some four out of five public health employees lack formal public health training. Furthermore, it has been noted that when students receive formal public health education at the graduate degree levels, they are less likely to locate in rural areas and underserved areas, where care is mainly available through public clinics, mobile health clinics, telemedicine and school-based clinics. Even when these students elect to work in rural and underserved areas, the skills and orientation of many of these students do not mesh with the health concerns and priorities of these communities. Therefore, one of the foci of the Public Health Program will be to identify professionals in underserved and rural areas and to provide them with enhanced public health training. In addition, the BS Program will be designed such that enrolled students possess the skills and knowledge that will enable them to assume entry level positions in these underserved and rural communities.

Public Health Program Alignments With UNC Tomorrow Findings And Recommendations.

- **Section A1 and A2. 21st Century Skills.** The Public Health Program will educate its students to be personally and professionally successful in the 21st century, which will enhance the global competitiveness of NC A & T and its graduates. A key component of the BS Program will be the inclusion of courses from University Studies in the curricula. These courses will ensure that undergraduate public health students can think critically, have strong analytical skills, and have excellent oral and written skills. Additionally, students enrolling in the graduate program will have to demonstrate that they possess the aforementioned skills or acquire them before admission to the program.
- **Section B. Increasing Access to Higher Education.** The Public Health Program will increase access to higher education for all North Carolinians, particularly individuals from rural and underserved areas and underrepresented populations. Special efforts will be made to recruit from these populations. In addition, grants and research funds will be secured, which will offer special initiatives to students from these areas to enroll in the Public Health Program. The Public Health Program will also increase access to higher education by developing distance and online public health courses and certificate programs (i.e. the Certificate in Health Disparities). In addition, the Public Health Program, in collaboration with the University of North Carolina at Chapel Hill School of Public Health's Minority Health Project, will devote a future annual Public Health Videoconference to the topic of rural health. This videoconference will focus on health issues facing the rural counties in the western region of the state.
- **Section G. Outreach and Engagement.** The Public Health Program will enhance the NC A&T's efforts to become more directly engaged with and connected to public health agencies in rural and underserved areas. This will be accomplished by collaborating with public health agencies to develop internships and field placements for public health students. Additionally, public health faculty working with student internship and field placement initiatives will work with agencies to identify collaborative opportunities for faculty to become involved in real-life public health issues and to use their expertise in the solution of identified issues.

- **Section E. Health.** The Public Health Program will lead to the improvement in the health and wellness of all people and communities in the state by graduating a cadre of public health professionals who will elect to work in all areas of the state, including those that are rural and in need of health personnel.

References

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- Association of State and Territorial Health Officials. (2004). State Public Health Employee Worker Shortage: A Civil Service Recruitment and Retention Crisis. Retrieved April 23, 2008, from <http://www.astho.org/pubs/Workforce-Survey-Report-2.pdf>
- Association of State and Territorial Health Officials. (2005). Strategies for Enumerating the Public Health Workforce. Retrieved April 23, 2008, from <http://www.astho.org/pubs/WorkforceEnumerationReport.pdf>

4. Doctor of Veterinary Medicine

The access of African American and other minority students within the state of North Carolina and the United States to veterinary medicine is at its most critical plateau. Specifically, the students in the Department of Animal Sciences preparing for a career in veterinary medicine are still being underserved by the existing college of veterinary medicine at North Carolina State University (NCSU). The majority of students still attend out of state veterinary medical school programs (Tuskegee University, Tuskegee, Alabama, NC A&T's largest supporter of minority student access to veterinary medicine and to other minority students from other undergraduate programs in the US.) while very few students, including majority students enrolled at A&T are able to attend or have attended the program at NCSU. With the diverse population increase in the state, there is increasingly limited access to veterinary medicine.

In 1985, NC State College of Veterinary Medicine graduated its first class of veterinary students. Today, 23 years later and after some nearly 1500 graduates from the professional school, less than one percent are African American students.

In March 2005 at the 15th Iverson Bell Symposium, an initiative of the Association of American Veterinary Medical Colleges (AAVMC) presented "DVM: Diversity Matters," the following findings were presented: (1) although lack of diversity is a problem throughout the schools of the health professions, it is especially acute in veterinary medical colleges; (2) current enrollment of underrepresented minorities stands at just under 10% of total enrollment of AAVMC institutional members in the United States, less than 2% of the total enrollment is African American; (3) recently released 2005 data indicate a downturn in the percentage of minority students enrolled for the first time since 1988; (4) according to the US Census Bureau, when considering race and ethnicity, the country's population is now comprised of 25% non-white individuals; (5) future needs of the profession draw dramatic attention to the profession's inability to produce a racially and ethnically diverse workforce; and (6) increased diversity in the veterinary medical colleges will lead to greater cultural competence among veterinarians and improved health outcomes in the communities they serve.

By far, Tuskegee University is still the predominant and most productive school of veterinary medicine for minority students (51%). More than one half of the African American veterinary students study at Tuskegee University. With the growing enrollment at NC A&T in the animal and biosciences, it is clear that more minority students desire interest in veterinary medicine as a professional career objective. However, the last 20 years has demonstrated that the veterinary medical colleges' admissions committee policies and

practices in the state of North Carolina and the US have not adequately promoted racial and ethnic diversity at their institutions.

A School of Veterinary Medicine at NC A&T will fill a crucial void relative to the need for veterinarians, particularly minorities. At the state level, the demand is far greater than can be accommodated by NCSU; at the national level, the demand is far greater than the remaining 27 schools of veterinary medicine can accommodate. The proposed School of Veterinary Medicine will be functionally integrated into the School of Agriculture and Environmental Sciences, the School of Nursing, the Department of Biology and the Public Health Institute within the framework of One Health-One Medicine approach. The mission of the proposed School of Veterinary Medicine at NC A&T will be to offer the professional DVM degree program to technicians, veterinary practitioners, clinical specialists and veterinary and biomedical research scientists with a focus on Food Animal and Special Species Medicine. Considerable emphasis will be placed on integrating computer-assisted educational technologies into our programs.

5. Joint Ph.D. in Social Work

To help meet the basic human needs of the state and nation, as well as the changing needs of the academic and public institutions and communities around the globe, University of North Carolina at Greensboro (UNCG) and North Carolina A & T State University (NC A&T) have requested authorization to establish a new Ph.D. doctoral degree in Social Work. The proposed Ph.D. in the UNCG Department of Social Work and the NC A&T Department Sociology and Social Work (hereafter SWK) will be an innovative program designed to prepare individuals for careers in universities, private research institutions, public agencies and active participants in dynamic community partnerships.

The state's only doctoral program is at Chapel Hill. A social work doctoral joint UNCG/NC A & T program would: (a) fill a gap in the state and region and meet the further goals of educating new Ph.D.s to fill academic positions in the ever-expanding undergraduate and Master's social work programs; and (b) fill the void anticipated by the expected retirement in the next ten years of a large percentage of current social work academicians.

Social Work Educational Objectives

The Ph.D. in Social Work is designed to accomplish the following educational objectives through multiple formal and informal mechanisms, required and elective course work, independent study and directed research, a comprehensive exam process, and the dissertation process. Graduates will demonstrate:

- A critical understanding of multiple paradigms in the philosophy of science and the implications of these for contemporary research. Emphasis on including non-western paradigms in addition to traditional scientific approaches.
- Mastery of a range of community-based, action-oriented research methodologies and data analysis strategies, including program evaluation, and competence in conducting independent inquiry on issues of importance to the field and with diverse populations.
- Competence in the analysis and application of a wide range of social, behavioral and practice theories.
- An ability to design and propose theoretically and empirically grounded models of social work intervention for coping with personal transitions and challenges, addressing social problems, and promoting equity and social justice.
- A critical understanding of the historical place of social work and social welfare in the evolution of social thought and cultural values.
- Expertise in a chosen substantive area related to social work, including skills related to dissemination of this knowledge.

- Demonstration of overall cultural proficiency within multicultural, multiethnic and multilingual environments.
- Demonstration of beginning overall teaching proficiency at the BSW and MSW levels. Students will be immersed in learning to teach—both process and pedagogy—with the goal of graduating teacher-scholars.

Social Work Alignments with UNC Tomorrow Findings and Recommendation:

- **Community Collaboration and Engagement.** The mission of the proposed UNCG/NC A&T Social Work Ph.D. Program is to prepare teacher-scholars to assume needed faculty positions nationally and regionally in the field of social work. To complement social work's historic emphasis on empowering communities, the program utilizes a unique community collaboration partnership model. In addition, the social work Ph.D. curriculum reflects the commitment of the social profession to the development of knowledge and skills to work toward social and economic justice, within an increasingly diverse environment, locally, nationally, and globally. The teaching and learning process is based in the context of the community where knowledge is developed and applied. Graduates will emerge as teacher-scholars and collaborative leaders.
- **Section A. Global Readiness: 21st Century Skills and Competitiveness.** Using a community collaboration engagement model, graduates will be prepared to teach, conduct research and consult with community partners resulting in increased quality in community social service delivery. Graduates will have a strong appreciation for diversity and the skills needed for teaching and completing research that reflects the principles of cultural proficiency, both locally and globally. Graduates will fill faculty positions in BSW and MSW programs regionally and nationally. Graduates will conduct applied research and program evaluation using a variety of methodologies in order to contribute to the social work knowledge base. Graduates will have a strong knowledge of social and economic disparities and the skills needed for teaching and conducting research that contributes to social justice in our nation and communities. The intended audience for this program includes those interested in doing community connected multicultural scholarship in academic, research, or public social welfare institutions. This audience will include those interested in the use of theories and research questions grounded in practice to reduce social problems and increase social justice.
- **Section G. Expanding University's Outreach to the Piedmont Triad and North Carolina.** The proposed program will make a significant contribution to the health and well-being of North Carolina citizens. By linking the educational and research missions of the program with external community partners, students and faculty members will be using their research and evaluation skills to improve prevention services delivered by local and state social work organizations. The UNCG Department of Social Work and the NC A&T Department of Sociology and Social Work already have a large outreach effort in their BSW and joint MSW programs focused on community social work practice. The doctoral program will complement these efforts by adding a research and evaluation component to our community outreach program. The proposed Ph.D. program, with its focus on social work research with community and multicultural groups will benefit and contribute to the well being of the greater communities.

D. Future Academic Degree Programs

The following is a listing of academic degree programs that have been discussed and are being considered for planning during the next five years. They are listed for information and do not define all the possible new programs.

1. PhD Degrees

- Nanoscience jointly with UNCG (in progress)
- Computational Science and Engineering (in progress)
- Engineering (in progress)
- Computer Science (in progress)
- Social Work jointly with UNCG (in progress)
- Rehabilitation Counseling
- Biotechnology and Biomedical Sciences
- Bioengineering
- Technology Management
- Food Sciences
- Public Health

2. Professional Degree

- Veterinary Medicine

3. Masters Degrees

- Nanoscience (in progress)
- Mass Communication and Media Studies (in progress)
- Biotechnology (in progress)
- Psychology
- Bioengineering
- Nursing Education
- Public Health
- Business Administration
- Architecture in Technology

4. Undergraduate Degrees

- Motorsports (in progress)
- Public Health
- Bioengineering

E. Implementation Strategies, Plans and Timelines

This varies with degree program.

Changes to Internal Policies and Processes Addressing Priorities North Carolina A&T State University

UNC Tomorrow

In order to meet the external challenges identified in this report, UNC and its constituent institutions must transform themselves internally to be more nimble, efficient, and responsive. In this transformation, UNC must remain committed to its three-pronged mission of teaching, research and scholarship, and public service and respond in ways that are consistent with those goals. Straying from that mission would dilute UNC's ability to serve our state in the ways that only it, as our state's public University, can. UNC must also remain mindful of its responsibility to be a good steward of the generous support given to it by the taxpayers of North Carolina through their elected representatives and be aware that its resources, while considerable, are not unlimited. Therefore, they must be wisely prioritized and maximized. The University must balance nimbleness and responsiveness with due diligence and a state-wide perspective in order to adopt the best options for meeting North Carolina's needs. UNC must remain committed to academic freedom for its faculty, staff, and students in the execution of its mission. Finally, UNC must remain committed to excellence and continue to strengthen the quality of its teaching, research and scholarship, and public service, for it is through achieving the highest degree of excellence in the fulfillment of its mission that UNC best serves our state and its people.

To this end, the Commission encourages UNC to consider the following recommendations as it develops its plans to respond to the challenges facing North Carolina.

Recommendation:

5.7. UNC should encourage and facilitate interdisciplinary and inter-institutional collaboration among its institutions

Suggested Strategies:

- *Streamline and make consistent administrative functions such as grant administration and accounting systems.*
- *Develop incentives to reward interdisciplinary and inter-institutional collaborations.*
- *Explore aligning the calculation of tuition charges for distance education and site-based courses and programs.*
- *Improve operating effectiveness of internal controls, procedures, and technologies to facilitate a more efficient work environment within and across the UNC system.*

NC A&T State University Changes to Internal Policies and Processes

Relatively few changes in internal processes and procedures will be required to facilitate the interdisciplinary and inter-institutional collaborative initiatives outlined by North Carolina A&T State University (NC A&T) in response to the major findings and recommendations identified in the UNC Tomorrow Commission Final Report. Among these processes and procedures are the following (with reference to specific NC A&T Responses):

- **Changes in reappointment, promotion and tenure policies to explicitly recognize faculty contributions to economic development, community engagement and outreach** (see section D. and G. of NC A&T Response).

NC A&T plans to develop a signature program (the Center for Outreach, Engagement, and Economic Development) for coordinating a variety of economic development, community engagement, and outreach activities. Current promotion and tenure policies, however, focus on traditional forms of teaching, research, and service – often overlooking faculty efforts at promoting greater interaction with the larger non-university community. Contributions to economic development, community engagement, and outreach could potentially be included in any of these areas, but highlighting these contributions separately and explicitly in campus reappointment, promotion, and tenure policies will increase faculty involvement in these areas. This topic will be covered explicitly in Phase II of the Response Plan to the UNC Tomorrow recommendations.

- **Establishment of branch campuses** (see Section B. of NC A&T Response).

NC A&T is interested in developing branch campuses, either independently or in conjunction with North Carolina community colleges, to promote access to higher education across the state, particularly in underserved counties with high minority populations. Policies and procedures for establishing branch campuses are currently being developed at the UNC-system level. NC A&T will need to continue to be an active participant in these ongoing conversations.

- **Conflicts of Interest** (section D of NC A&T Response)

Amend the university's current Conflicts of Interest policy to provide clear, concise guidance on technology licensing activity, with special emphasis on entrepreneurship and new venture creation/ownership.

- **Local Modifications to BANNER Use**

Local modifications to the use of BANNER and the development of new institutional databases will be necessary to carry out and monitor success of NC A&T UNC Tomorrow initiatives. [see section C (2+2 Program) section G (Service Learning and Center for Outreach, Engagement, and Economic Development) of NC A&T Response]

- **Elimination of Redundancies in Reporting/Budgeting for Inter-institutional Joint Degree Programs**

UNC GA-level reporting and budgeting processes for inter-institutional academic programs should be modified to eliminate redundancies that hinder innovation and efficiency. Specifically, current UNC-level reporting and budgeting procedures require each participating institution engaged in an inter-institutional joint degree program to manage its own program-related budget and reports. Designing a mechanism to allow a single *program-level* (rather than institution-level) budget and reports would improve efficiency and promote the development of new inter-institutional collaborations. (see "New Programs and Academic Programs Addressing UNC Tomorrow Findings," in particular Joint School of Nanoscience and Nanoengineering)

- **Local Changes to Internal Policies and Processes**

If current university (NC A&T State University) policies and processes are inadequate to allow for implementation and monitoring of NC A&T UNC Tomorrow Initiatives the policies and processes will be amended as necessary or new policies and processes developed to ensure effective program and activity implementation, including appropriate internal controls and risk assessments.

Appendix A

UNC Tomorrow Response Plan Members North Carolina A&T State University

UNC Tomorrow Response Team

- Janice Brewington, Provost and Vice Chancellor for Academic Affairs, **CHAIR**
- Narayanaswamy Radha, Vice Chancellor for Research and Economic Development
- 9 - Chairs of Work Groups
- Claude Lamb, Professor Chemistry
- Linda Callahan, Faculty Senate President
- Harry Giberson, Staff Senate President
- William Clay, Special Assistant to the Chancellor for Development
- Kenneth Murray, Associate Vice Chancellor Academic Affairs
- James Gooch, Academic Affairs

Work Groups

A. Global Readiness

A1 21st Century Skills

- Joseph Graves, Dean, University Studies - CHAIR
- Denise Iverson-Payne, Assistant Vice Chancellor for Student Development
- Michele Levy, Professor, English
- Millicent Brown, Associate Professor, History
- Sonya Draper, Assistant Professor, Graphic Communications Systems & Technology Studies
- Devdas Pai, Professor, Mechanical Engineering
- Kathy Cousins-Cooper, Associate Professor, Mathematics
- Emmanuel Ikegwu, Associate Professor, Foreign Languages

A2 Global Competitiveness

- Michael Plater, Dean, College of Arts and Sciences – CHAIR
- Thomas Porter, Director, Liberal Studies
- Minnie Battle Mayes, Director, International Programs
- Chi Anyansi-Archibong, Professor, Business Administration
- Peter Meyers, Professor, History & Director Honors
- Terrence Thomas, Adjunct Associate Professor, Agricultural Education
- Donna McGiboney, Assistant Professor, Spanish
- Wilbert Guilford, Student, Spanish
- Wendy Hamblet, Assistant Professor, University Studies
- Sanjiv Sarin, Associate Dean, College of Engineering
- Joseph Monroe, Dean, College of Engineering
- William Craft, Associate Vice Chancellor, Research & Dean of Graduate Studies

B. Increasing Access to Higher Education

- Benjamin Uwakweh, Dean, School of Technology CHAIR
- Yvette Underdue Murph, Associate Vice Chancellor – Enrollment Management
- Tracey Ford, Director, Center for Academic Success
- Miriam Wagner, Associate Professor, Human Development & Services
- Phyllis Cole, Director, Evening/Weekend Programs
- Gwendolyn Godard, Director Distance Learning
- Maria Palmer, Director, Multicultural Center

- Karen Smith-Gratto, Associate Professor, Curriculum & Instruction
- A. Ayanna Boyd-Williams, Assistant Dean, Graduate Studies
- Peggy Oliphant, Director, Veteran and Disability Support Services
- Jean Williams, Head, Public Services ,Library
- Patricia Chatt, Assistant Vice Chancellor, DoIT
- Sherri Avent, Director, Financial aid
- Beverly Wallace, Director, Upward Bound

C. Improving Public Education

- Deborah Callaway, Dean, School of Education - CHAIR
- Vallie Guthrie, Associate Professor, Mathematics & Director GAMSEC
- Karen Guy, Assistant Professor, Curriculum & Instruction & Director Student, Teaching and Internships
- Sharon Hoard, Director, Teaching Fellows Program
- Doris Mitchell, Associate Director, Library Services
- Sonya Ricks, Assistant Professor, History Education
- Tammy Webb, Assistant Professor, Human Development & Services
- Dorothy Leflore, Associate Professor & Chair, Curriculum & Instruction
- Walthea Cobitz, Assistant Professor, Education
- Thelma King, Associate Professor, Business Education
- Katrina Staley, Assistant Professor, Mathematics
- Cailisha Petty, Associate Professor, Biology
- Cathy Kea, Professor, Curriculum & Instruction
- Linda Hopson, Associate Professor, Human Development & Services

D. Economic Transformation and Community Development

- Thaddeus McEwen, Professor, Business Administration – CHAIR
- Douglas Speight, II, Assistant Vice Chancellor for Outreach
- Nettie Rowland, Director, Media Relations
- Kathryn Dobie, Professor & Director, Transportation Institute
- Musibau Shofoluwe, Professor, Construction Management & Safety
- John O’Sullivan, Extension Specialist, Agricultural Economist Agricultural Research/Cooperative Extension
- Osei Yeboah, Assistant Professor, Agricultural Economics Agribusiness, Applied Economics & Agriscience Education
- Robert Powell, Assistant Professor, Civil, Architectural, and Agricultural Engineering
- Quiester Craig, Dean, School of Business and Economics
- Blair Abee, Director, Triad Region, Small Business and Technology Development Center
- Cynthia Clemons, Program Assistant, Business Administration
- Silvanus Udoka, Associate Professor, Business Administration
- Quiester Craig, Dean, School of Business and Economics

E. Health

- Patricia Chamings, Dean, School of Nursing - CHAIR
- Linda Wilson, Director, Health Center
- Dorothy Browne, Director, Institute for Public Health
- Goldie Byrd, Professor and Chair, Biology
- Sharon Criner, Director, Outreach Summer Sessions
- Glenna Barnes, Assistant Professor, Sociology and Social Work
- Susan Schumacher, Associate Professor, Psychology
- Brenda Swearingin, Instructor, Human Performance & Leisure Studies

F. Environment

- Godfrey Uzochukwu, Director, Waste Management Institute - CHAIR
- Keith Schimmel, Director, PhD in Energy and Environmental Studies
- Shouu-Yuh Chang, Professor, Civil and Environmental Engineering
- Andrew Small, Director Environmental Health and Safety
- Abolghasem Shahbazi, Professor and Director Biological Engineering
- Stephanie Luster-Teasley, Assistant Professor, Civil, Architectural, and Agricultural Engineering
- Syrulwa Somah, Associate Professor, Construction Management & Safety
- Carey Baldwin, Director Physical Plant

G. Outreach and Engagement

- Alton Thompson, Dean, School of Agriculture and Environmental Sciences - CHAIR
- Eric Cheek, Assistant Vice Chancellor Summer Sessions and Outreach -
- LeAnder Canada, Director, The Mattie Reed Heritage Center
- Joyce Edwards, Executive Director, Career Services & Experiential Learning
- Mable Scott, Associate Vice Chancellor Public Relations
- Phillip Carey, Professor, Sociology and Social Work
- Paula Faulkner, Assistant Professor, Agribusiness, Applied Economics and Agriscience Education
- Chastity Warren-English, Assistant Professor, Agribusiness, Applied Economics and Agriscience Education
- Robin Adams, Director, Communications and Technology, School of Agriculture and Environmental Sciences
- Ray McKinnie, Associate Dean, Cooperative Extension Programs, School of Agriculture and Environmental Sciences
- Wayne Szafranski, Director, Technology Transfer and Commerce
- Patricia O'Connor, Director, Continuing and Professional Studies
- Shena Crittendon, Associate Vice Chancellor, Communications and Operations DORED

H. Changes to Internal Policies and Processes

- Scott Simkins, Director, Academy for Teaching and Learning - CHAIR
- Larry Kreiser, Internal Auditor
- Craig Rhodes, Associate Professor, Graphic Communications Systems & Technology Studies
- Sharon Neal, Director, EPA Salary Administration
- Scott Hummel, Assistant Vice Chancellor for Business and Finance/Comptroller
- Valerie Green, Chief Legal Council
- Alvin Keyes, Associate Professor, Psychology
- Mitzi Bond, Associate Vice Chancellor Research Administration
- Robert Ussery, Assistant Vice Chancellor Institutional Research
- Frederick Ferguson, Professor, Mechanical Engineering
- Linda McAbee, Vice Chancellor for Human Resources

Each Work Group chair will be on the Response Team.