AGENDA
ECU Board of Trustees
Research, Economic Development and Graduate Studies
April 11, 2007
11:00 a.m. Teleconference

I. Research & Graduate Studies Division
   Strategic Planning  Discussion

II. Update on on-going Searches  Discussion
   A. Associate Vice Chancellor – Economic Development
   B. Director, Grants & Contracts
   C. University Research Compliance Officer
   D. Director, ECU Institute for Interdisciplinary Coastal Science and Policy
   E. Director, NC Center for Sustainable Tourism
   F. Associate Director, North Carolina Agromedicine Institute
   G. Federal Relations Officer
   H. Joint appointments with Coastal Studies Institute

III. Proposed Center on Health Disparities Research  Discussion

IV. Restructuring of Regional Development Services  Discussion
I. **Vision**
   Explore, Create, Engage…
   Double ECU’s research productivity over the next five years.

II. **Mission**
   The Division of Research and Graduate Studies leads research and creative endeavors, education, economic development, and community engagement by promoting scholarship, ethics, and service, in an evolving, dynamic environment.

III. **Division of Research and Graduate Studies Strategic Plan**
   ECU will increase scholarship and creative activity over the next five years by:
   
   1. Enhancing computing, physical and financial resources for research and graduate education
   2. Improving administrative infrastructure for research and graduate education
   3. Expanding research and education opportunities for faculty and students
   4. Encouraging applications of research to benefit society and promote sustainable economic development
   5. Stimulating interdisciplinary/collaborative research and community engagement

**Ambitious goals for Eastern North Carolina**
Research is transforming the world’s economy through the generation and application of knowledge. In order to help eastern NC to participate actively in this transformation, ECU will grow its research enterprise to $80 M by 2012, creating a stimulating environment for research, innovation, and community engagement. This bold and ambitious plan for growth will require significantly more faculty members, graduate students, and undergraduate students engaged in research, creating significant pressure on utilization of research space and financial resources to support research activities.

**Creating a Stimulating Environment for Research, Innovation and Entrepreneurship**
In today’s global knowledge economy, new discoveries drive the development of innovative, new technologies and opportunities for social and economic growth. The knowledge based economy is fueled by high-speed global telecommunications; however, a region cannot fully participate by simply being plugged into the world’s telecommunication network. Local competencies and clustering of human capital is required to create a critical mass of highly skilled innovators, entrepreneurs,
investors, and corporations to exploit basic and applied research and development. ECU will stimulate research and knowledge generation in eastern NC by building a critical mass of faculty, staff, and students; by recruiting world-class faculty; by developing nationally and internationally recognized research centers and institutes; by investing financial resources necessary to create physical facilities for research; by maintaining cutting-edge computer and communication networks; by creating a network of angel investors through its entrepreneurial initiative; by licensing and developing its intellectual property for the betterment of humankind; and by engaging community leadership to address regional issues responsibly. We recognize the value of basic and translational research in our efforts.

**Outcomes**

Our success will be measured by the outcomes of our efforts. Over the next five year period ending in 2012, we expect to double the rate of our scholarship (peer reviewed publications and other measurable forms of creative and scholarly work), double enrollment in PhD programs, double our international population of graduate students, create three new research centers or institutes, develop five spin-off companies and licensed products, and double our research space to accommodate this level of growth. Significant financial resources will be needed to achieve these goals which will come from a combination of internal and external funds.

**Areas of research focus**

The University will continue its investments in the following established strategic priorities:

- Metabolic disorders, obesity, diabetes, and bioenergetics
- Cardiovascular disease
- Coastal science and policy
- Agromedicine research
- Cancer research

The University has identified the following new strategic opportunities for future investment and development:

- Health disparities and public health
- Sustainable tourism

The University will also retain reserve capacity to invest in emerging research opportunities as they present themselves.

**Goal #1 – Enhancing computing, physical, and financial resources for research and graduate education**

Compared to our peer institutions, ECU’s level of research productivity lags significantly. In order to increase ECU’s level of research activity, we will need more space and greater financial resources (both internal and external) to sustain our research enterprise. Universities of comparable size and quality with medical schools have $80 million to $120 million in external grants and contracts.
Information technology plays an ever increasing role in research, and in order to continue our development, ECU must stay at the cutting edge of IT services.

Objectives for Goal #1

1. Increase external funding (research, contracts, and endowments) to $80+ million by 2012 (about 15% increase per year)
   a. Increase faculty training workshops
   b. Increase the number and quality of faculty research mentoring activities
   c. Embrace the concept of differential teaching loads to provide increased released time for research productive faculty
   d. Establish a faculty research leave program
   e. Increase unit focus and participation in endowment activities

2. Provide more physical space for ECU's research enterprise
   a. By 2008, complete the design and up-fitting of empty research space in the Science and Technology Building. 8000 ft² x $280 / ft² = $2.2 million
   b. By 2008, complete plans for the renovation of research space in the Brody School of Medicine (labs are 30 years old)
   c. In 2007-2008, begin advanced planning for the construction of two new research buildings (45,000 ft²) with an emphasis on promoting interdisciplinary research
   d. Develop plans for an adjacent research incubator / research park

3. Provide strategic institutional investments for scholarship and creative activities to leverage external resources
   a. Earmark internal funding for research and creative activities in the arts and humanities (estimated cost: $150,000)
   b. Create university graduate fellowships, including an assistantship, tuition remission and health care coverage to recruit the very best students into our graduate programs. (5 masters’ students, $125,000/yr, and 10 PhD students, $300,000/yr initially, increasing to a total of $1.0 million by 2012)

4. Increase financial and physical resources for graduate educational experiences and graduate professional development opportunities
   a. Create a Graduate Center which will house the Graduate School, provide accommodations for the Graduate Student Council, provide a common area for graduate students to congregate for social and other purposes, and fulfill other graduate student needs
   b. Provide a Graduate School administrative structure that exploits appropriate technology to track student progress, provides electronic access to appropriately authorized persons, and reminds students of important deadlines

5. Increase financial support for graduate assistantships, in-state and out-of-state tuition remissions
a. Using a combination of internal and external funds, double the average amount of a graduate assistant stipend by 2012 (estimated cost: $9M / yr)
b. Double the number of in-state and out-of-state tuition remissions by 2012 (estimated cost: $0.4m / yr and $1.9 M / yr)

**Goal #2 – Improving administrative infrastructure for research and graduate education**

Limitations in ECU’s research infrastructure make it difficult to manage and spend research funds, ensure compliance with state and federal guidelines, hire research personnel, and purchase research equipment and supplies. As our research productivity grows, these services will be improved so faculty, staff and students can more effectively devote their time and effort towards research and scholarly activity.

**Objectives for Goal #2**

1. Improve the quality of pre-award, post-award, and clinical trial services
   a. Implement an electronic research administration system during FY 2007-08
   b. Add a database support person in OSP during FY 2007-08
   c. Add a grants and contracts specialist for clinical trial negotiations by the end of FY 2006-07
   d. Add an administrative support position to support the Division of Health Sciences grant and contract specialist by the end of FY 2006-07
   e. Add an additional grants and contracts specialist for the Division of Health Sciences during FY 2007-08
   f. Convert the effort reporting period for grants and contracts from monthly to quarterly

2. Build research administration capabilities at the college level
   a. Recruit at least one grants and contracts officer for each college with significant engagement in externally funded research
   b. Develop grants and contracts training materials and activities for college and unit level administrators

3. Develop “best-practice” procedures and processes to ensure compliance with applicable guidelines, laws and regulations
   a. Develop a University Research Compliance program (estimated costs $200,000 /yr)
   b. Develop a University code of conduct setting forth legal and ethical principles upon which research should be conducted
   c. Develop, facilitate and oversee the implementation of timely educational training programs for all engaged in or supporting research (estimated costs: $10,000/yr)
   d. Increase the capacity for managing international research activities, including recruitment of faculty, staff, and students, as well as proper handling of research materials and data
4. Improve institutional business practices [supporting the research enterprise and graduate education]

Goal #3 – Expanding research and education opportunities for faculty and students

The prestige of a university is built upon the quality of its graduates, its outstanding scholarship, creative activity and research productivity, as well as the outreach services and economic development that it generates. If East Carolina University is to continue to enhance its prestige, strong and vibrant high-quality research opportunities for its students will be essential. In order to develop a highly-skilled workforce to meet developing regional needs, more students with research training are needed. High quality undergraduate research and graduate programs require dedicated, passionate faculty members and competitive support for graduate students, including assistantships, fellowships, tuition remissions and health benefits.

Objectives for Goal #3

1. Create critical mass of scholars, programs, centers and institutes
   a. Recruit 12-15 senior scholars per year (estimated cost $350,000/yr salary, $2 million/yr start-up)

2. Communicate grant and corporate funding opportunities to faculty and staff

3. Optimize teaching loads to enhance research productivity

4. Identify and engage strategic institutional and corporate partners to enhance research and educational opportunities for staff and students

5. Create a university faculty research leave program (estimated cost $1 million initially for 20 to 25 one-semester faculty leaves)

Goal #4. Encouraging application of research to benefit society and promote sustainable economic development

As outlined in a recent report by the Yardley Group, ECU's future lies in developing concentrated research excellence in areas that have immediate regional impact. While this development should relate to existing economic clusters, actual economic activities are shifting away from an agricultural and manufacturing environment to one that is less defined. To strengthen viable economic clusters, ECU must create a climate of innovation and entrepreneurship that is pervasive within the institution to serve as a catalyst for change throughout the region. To accomplish this, ECU will allocate necessary financial and human resources in a timely manner.
Objectives for Goal #4

1. Nurture a culture of discovery and innovation that inspires academic, social, civic, artistic and technological entrepreneurship ($100,000/yr)
   a. Offer an academic module to college freshmen to demonstrate how entrepreneurial thinking will benefit themselves, their families and their communities
   b. Offer an interdisciplinary academic minor in entrepreneurship to all ECU students
   c. Offer an on-line certificate program in entrepreneurship to both students and non-students

2. Create and expand institutional programs that demonstrate the path toward commercialization and entrepreneurship ($300,000/yr)
   a. Establish a faculty innovation fund to seed future entrepreneurial activities and develop/implement creative program elements in entrepreneurship education and application
   b. Establish a business plan competition of interdisciplinary teams consisting of students, faculty and other interested individuals to develop viable business plans and compete for valuable prizes and services to be provided by supporters of innovation and economic development
   c. Establish a commercialization and entrepreneurship speaker series

3. Engage and develop partnerships, public and private, to advance and fund university research/intellectual capital
   a. Establish the Innov8r Series, an eight session, monthly program designed to provide entrepreneurs with the skills and resources needed to take initial steps in developing a concept into a commercialization plan (self-funded through sponsorships and registration fees)
   b. Facilitate continuing activities of the local investor network

4. Develop collaborative relationships with regional communities to identify and address issues, problems, assets, opportunities, and best practices that can result in sustainable social and economic development
   a. Generate reports for planning, funding, and impact of community and economic programs
   b. Facilitate programs on strategic planning and leadership development in the region

Goal #5 – Stimulating interdisciplinary/collaborative research and community engagement

Interdisciplinary and multi-institutional research is now the focus of many research universities and granting agencies, and these collaborative endeavors are essential for addressing human interventions with the natural environment and community development. The analysis of very complex problems in the region and world and
the development of solutions for solving them are frequently only possible through application of research using modern technology and collaborative contributions from a diverse set of disciplines from the natural, social and economic sciences and the humanities.

**Objectives for Goal #5**

1. Provide infrastructure, program support, and a recognition reward system for faculty and student engagement with regional communities
   a. Provide release time and other incentives to 50 faculty for developing multi-institutional and interdisciplinary research grant projects with their collaborators (estimated cost: $250,000)

2. Identify external strategic funding sources to support community based research engagement.
   a. Develop workshops (2 per year initially, expanding to 4 per year in 2012) to help faculty identify and apply for community based research and development grants (estimated cost: $10,000 initially, increasing in later years). Metrics: Measurable increase in service grant submissions and awards
   b. Develop mentoring activities (2 per year initially, expanding to 3 per year) to help train faculty to successfully compete for and execute externally funded community research and engagement activities (estimated cost: $10,000 initially, increasing in later years).

3. Identify and publicize best practices to internal and external constituencies.
   a. Translate the outcomes of community-based research with participation from stakeholders, to disseminate and apply best practice outcomes to develop outreach programs in 15 communities in the region (estimated $2 million dollars)
   b. Broaden the scope of ECU’s community engagement infrastructure to involve more faculty members in outreach activities

4. Create teams of social and natural scientists to address community socioeconomic and environmental issues
   a. Establish and support 3 new research centers and/or institutes which address research questions and issues that require the collaboration of researchers from the social and natural sciences and the humanities (estimated cost: $2 million/yr).
Preamble:

On November 7, 2006 the faculty Senate passed a resolution to have Professor Mark Taggart, Chair the Faculty, appoint an ad hoc committee to review the Yardley Research Group Draft Report and issue a report on their findings to the Faculty Senate. In response to that motion, Professor Taggart appointed a committee formed by Edson Justiniano (Thomas Harriot College of Arts and Sciences), chair, Martha Alligood (School of Nursing), Charles Coddington (College of Technology and Computer Science), Thomas Huener (School of Music), Dan Schisler (School of Business), and Nancy Zeller (College of Education).

The committee met several times both synchronously, in face-to-face meetings, and asynchronously, by e-mail. Further, the committee received input, both verbally and in writing, from several members of the faculty. This document summarizes the findings of the committee.

Introduction:

The Yardley Research Group Draft Report (Yardley Report) was produced in fulfillment of a March 2006 contract with the Vice Chancellor for Research and Graduate Studies at East Carolina University. The purpose of the work was to conduct a strategic assessment of the University's doctoral programs.

Two members of the Yardley Research Group visited East Carolina University during the week of April 2, 2006, when they conducted interviews with administrators and faculty. Faculty input for the Yardley Report was limited to interviews with chairpersons and directors of graduate studies of the 18 programs participating in the study. The interviewees were instructed to bring to their interview a short questionnaire providing background data on their program (see Yardley Report pages 83, 84). Additional data was gathered from ECU institutional sources and in many cases these were used rather than those provided by the deans or directors responsible for the programs.

The Yardley Research Group issued their 217-page report on November 5, 2006. In addition, they visited ECU on November 16/17, 2006, to meet with administrators and faculty.
Findings:

In the view of this committee, the Yardley Report is deeply flawed. Although, it offers a handful of useful insights in ways to enhance the effectiveness of current doctoral programs as well as to ensure the orderly growth of future programs, it grossly misrepresents the achievements and potentials of our current programs.

Certainly, one issue on which this committee is in full agreement with the Yardley Group is in its identification of the very negative impact that the statewide prohibition of duplicating programs causes to relatively young and fast developing universities such as East Carolina University. We also share with them the concern over the imbalance between program development and availability of financial and infrastructure resources at East Carolina University. The Yardley Group suggests that East Carolina University is positioned to be the driving force behind the economic development of eastern North Carolina and our committee full heartedly endorses this concept.

Where, in our view, the Yardley Group “got it wrong,” and to some extent very wrong, was in their evaluation of our current graduate programs. Several factors might have contributed to this coming to be the case. The committee was very concerned by the fact that, at least at the program level, there was no self-study evaluation taking place in advance of the Yardley Group review. Lacking a self-study, and given the paucity of program data gathered by the Yardley Group in their questionnaire, the reviewers did not have a comprehensive enough vision of each individual program to reliably place them in an appropriate context within the comparative cohorts. Even the identification of the comparative cohorts became in several cases at best questionable, in others totally inappropriate. A self-study would have guided the process by identifying areas that could benefit from an external review and the appropriate quantifiable data that should have been used in the comparative metrics.

Another factor that contributed greatly to the discomfort felt by the East Carolina University faculty in general, and this committee in particular, in regards to the Yardley Report was our perception that the reviewers overstepped their boundaries of expertise. One would probably be justified in finding somewhat presumptuous the detailed advice given in the report regarding specific research areas that individual programs should target for development. It is the opinion of this committee that the reviewers lacked not only discipline specific knowledge that could inform their suggestions but also a practical understanding of the academic environment.

Along the same lines, we fail to see a justification for some of the recommendations in the report regarding the area of program funding. Also needed is an analysis of the consequences that would result from these recommendations. For example, our committee is concerned with proposals in the report that would lead to eliminating graduate assistantships from professional programs as we fear that this could prove fatal to their ability to attract qualified students. Furthermore, graduate assistantships, even in professional master’s programs provide very important, affordable support for the faculty in fulfilling the university missions of teaching and research. Although, in general terms,
we fully endorse a more strategic approach to funding, we remain cautious toward what is suggested in the Yardley Report. The model proposed in the report could easily become too skewed towards a top-down approach to planning. It is, in our view, very important that a vigorous bottom-up participation must also be encouraged and that the recommendations arising from this process should be given considerable weight in the further stages of the overall planning progression. In other words, the faculty and administration working together must arrive at the optimal balance between strategic and programmatic needs that will ensure the sustainable growth of graduate programs at East Carolina University both in quantity and, most importantly, in quality.

Conclusion:

In the view of this committee, the Yardley Report is too flawed to be of much use informing any of the many strategic choices that are needed to guarantee the continued growth, in both quantity and quality, of graduate education and research at East Carolina University. Although it is undeniable that graduate programs at ECU are being negatively affected by an insufficient level of institutional resources assigned to their support, we do not believe that the recommendations found in the Yardley Report provide the needed roadmap to the solution of this problem.