

AGENDA
ECU Board of Trustees
University Affairs Committee
Mendenhall Student Center, Great Room 2
November 20, 2008
12:30 PM

I. Minutes

- A. Approval of Minutes (September 25, 2008) Action**

II. Athletics

- A. Hall of Fame By-Law Modification Action**
- B. Facility Update Discussion
- C. Financial Report Information
- D. Athletics Update Information
- E. UNC-GA Athletics Annual Report Information

III. Academic and Student Affairs

- A. Conferral of Degrees Action**
- B. Update from the Provost Information
- C. 2008 Safety Report Information
- D. Student Judicial Task Force Summary Report Discussion
- E. Campus Safety Allocation Discussion
- G. Organizational Redesign Discussion

IV. Enrollment Management

- A. Strategic Enrollment Management Task Force Recommendations Discussion
(Draft Report is available online. Click **here** to view.)

V. Research and Graduate Studies

- A. Climate Report Discussion

Minutes of the Meeting of the
University Affairs Committee
East Carolina University Board of Trustees
September 25, 2008
12:05-2:30p.m.
Mendenhall Student Center, Great Room 2

Attending: Bob Lucas (chair), William Bodenhamer, Joel Butler, Andrew Griffin, Carol Mabe, Robert Brinkley, Margaret Ward, Robert Hill, Kemal Atkins, Judi Bailey, Steve Ballard, Austin Bunch, John Durham, Nick Floyd, Terry Holland, Deidre Mageean, Rick Niswander, Mary Anna Walker, Dee Bowling, Julia Ormond, Peter Romary, Ted Morris, Bob Fry, Phillip Rogers, Steve Tuttle

Mr. Lucas opened the meeting by reading the statement regarding conflict of interest.

The committee approved the minutes of the previous meeting.

Athletics

Terry Holland and Nick Floyd discussed the athletic budget and stated that in the last four years the ECU athletic budget is growing increasingly comparable to that of similar institutions. Holland briefly updated the situation regarding out of state waivers as well as expressed a major focus on recruiting in-state kids. He added that season tickets were down by about 1,000 from last year, but it shouldn't be an issue. Holland announced that the ECU/Houston game was a sellout and also that total revenue will still be above last year's total. There was some discussion about why student tickets were down for NC State game and Floyd stated that there aren't usually student tickets available for road games like NC State, but they did make 100 available this time for the students.

Holland provided an update on the Dowdy-Ficklen Stadium East End Zone Project and that it is set to be completed by the end of 2010 season, but there are some issues to be addressed. The suites will likely have to be moved from the proposed east end zone to the press box side. That may move the suites completion to 2011 season as well as the press box. This will mean a full season with construction ongoing. Total projects to be between \$60-70 million range for funding. Additionally, Holland discussed how student fees have been used to benefit the Olympic sports, particularly women's sports.

Research

Deidre Mageean – 2nd Annual Report for Division of Graduate and Research Studies (handout). She will be presenting the report to the faculty senate to make sure they understand. Mageean shared some good news, ECU is now just shy of \$45 million in external funding, which is an all time high. This number is an increase of \$12 million in the last four years, thanks in great deal to the Brody School of Medicine. Health Life and Clinical have been leading the way. Other schools like Department of Engineering are making great strides for new programs. Mageean expressed a major concern for the need of facilities to bring in qualified research driven faculty

to create a new culture. In addition, recruitment of graduate students is another concern, but perhaps space is the largest issue. She said there is a request for planning money to come in and then to operationalize this, the next big effort will be a research building. In regards to invest dollars, Mageean said investments internally are paying off in major ways, especially for those being hired as associate or full professors. She shared her division's strategic initiatives which are to have both campuses working together which hasn't always happened. We are identifying strengths and trying to maximize these efforts. Also, there is a major issue regard graduate assistantships – they are only receiving \$7,500 a year in pay and they have to include their tuition. We are losing good people to lesser programs. Mageean shared her pleasure with the growth and great richness of opportunity currently taking place in the Willis Building.

Academic and Student Affairs

Kemal Atkins explained the Temporary Housing situation. There was an overflow of housing on campus for the fall semester due to the largest enrollment of freshmen this year. There are two off-campus apartment complexes that won the bid to house students. The Bellamy (110 students) and North Campus Crossing (111 students) are housing students. He said the students are being treated as if they are on-campus housing and they are receiving comparable rates. Each has residence hall advisors on site including coordinators and ECU Police has communicated with the complexes to ensure safety and security. Both have controlled access and additional security. As of Sept. 4th, 52 students have relocated back on to campus as space became available. The number is closer to 60 as of today (September 26, 2008). Atkins said he doesn't believe there will be need to extend the lease, but this will be determined later in the semester. There have been no significant problems, but we have seen some minor alcohol issues going up. They are being addressed as if they happened on campus.

Atkins and Marilyn Sheerer provided a report on campus safety. Atkins discussed the Emergency Preparedness Report (handout). He said there were a number of emergency communication investments over a million dollars regarding equipment for threat assessment. Also, ECU has purchased a software system called Mosaic to help assess the level of threat on campus. Additionally, ECU is conducting criminal background checks on students depending on responses on the application. There will be training next week for people to conduct background searches. They shared that "ECU Alerts" is a work in progress, but has been so far effective. Sheerer stated the Campus Safety Task Force will be moving ahead to becoming a full university committee in the following months. They also discussed the roles and procedures for Center of Mediation and Risk Management. Campus safety is not to be under one umbrella b/c emergencies fall into different categories from shootings to hurricanes. Chief Shelton handles the process of campus safety. Bill Koch also works closely on the other roles. Sheerer said ECU is working on the formal structure currently, but it is proceeding well. Chief Shelton is Campus Safety Officer. One concern from UA committee members was the education of our students. Sheerer explained Chief Shelton is currently working through Community Policing by being in the dorms and on campus. The committee agreed that it is not just the role of the police to educate the students. Atkins stated this is what we do in the dorms, in student life, in student affairs, with the student safety council. The students are getting to the opportunity to share their concerns.

Peter Romary announced there are Safety Symposiums coming up to discuss Threat Assessment Protocol. There will be about 300-400 schools in attendance at this event which will be in January.

Strategic Enrollment Plan

Judi Bailey outlined a preliminary report (handout). The SEP goal is to increase retention and graduation of our students. ECU experienced dramatic growth in the fall 2008 semester and the SEP is working to face a delicate balance for quality in students and programs. In a breakdown of the numbers from fall enrollment, Bailey stated there were 1,010 students above our levels so far. There is not the space or faculty available to handle this type of growth. The needs of the students are not being met as they should be right now. The projections by 2017, is ECU will have 36,000 students plus, however it's numbers are at the 2012 level right now. The full report from the SEP will be provided to the Board of Trustees in November after the ECU faculty has delivered their input. Trustee Carol Mabe discussed how it started as a simple plan to provide growth numbers and quality, but it has grown into much more comprehensive task. One of the big issues is the access mission. Bailey stated they want to develop a level of openness and honesty from the university to our students. However, ECU can't just bring them in, but there must also the expectation of delivering quality to the students.

Bailey explained the actions are following the UNC Tomorrow Initiatives. She said if ECU were to follow this plan to the tee and not address providing quality of education delivered, we will have exceeded the GA 2017 numbers far before that. ECU grew by 6% this year and Bailey believes in the future it should be closer to 2%. She stated that another component of the GA plan was to increase the graduation/retention rates.

Board of Trustee Chair Robert Greczyn expressed strong sentiment about enrollment by stating the administration is not prepared to accept 36,500 students unless it is underpinned by quality.

Bailey discussed the plans for limiting spring enrollment. Those who were held over from the fall as well as some transfers and returning students will be admitted. She added the fall 2009 process, ECU will likely cap first-time, full-time freshmen at 4,000. Acceptance will be based on quality where our yield rates are at or close to 4,000.

Financial Aid –

Dr. Bailey introduced Dee Bowling and Linda Poorman from her financial aid staff. She provided an update of current status of Financial Aid. There has been some difficult transition time from a performance level that was unacceptable to one that is much better. Student growth was a big issue. The Financial Aid infrastructure was set for 16,000 students and the work has been to get up to speed to handle 28,000 students, which will occur by mid-October. The office is looking at customer service practices and there is need to implement not just recognize this aspect. They are attacking two phases: customer service and taking national standards and implementing them to ECU. There was a belief that there was errors made prior and if the office sticks to its plan, it should be among the best in the system. Bowling shared the rule of thumb for staffing in financial aid offices. One should have 1 staffer per 1,000 students. In August, the office had 21 people, about seven people down. By October 30th, there will be 28 people.

Amendment Recommendations from 2008 Hall of Fame Committee Meeting in PURPLE –
Recommendations to be acted upon by Board of Trustees at November 20-21, 2008 meeting

Approved by Board of Trustees
2/24/06

BYLAWS

The East Carolina University Athletics Hall of Fame

Article I Name of Organization/Authorization

The name of this organization shall be "The East Carolina University Athletics Hall of Fame". The East Carolina University Athletics Hall of Fame is authorized by and operates under the authority of East Carolina University.

Article II Purpose

The East Carolina University Athletics Hall of Fame is established to pay tribute and give the highest recognition to former athletics letter winners, coaches, administrators, and others who have made exceptional contributions to the athletics program at this University.

Article III Administration

Section 1:

The business and affairs of The East Carolina University Athletics Hall of Fame shall be administered by the Hall of Fame Committee.

Section 2: (Proposed for amendment, 2008)

Change to: The Hall of Fame Committee shall consist of *(14) fourteen* members as follows:

1. *Chair of the ECU Trustees University Affairs Committee or his/her designee (trustee) (Committee Chair)*
2. *Chair of the ECU Board of Trustees or his/her designee (trustee)*
3. *Chancellor or his/her designee*
4. *Director of Athletics or his/her designee*
5. *Executive Associate Director of Athletics*
6. *Athletics Department Senior Woman Administrator*
7. *President of the Educational Foundation (Pirate Club)*
8. *President of the Educational Foundation (Pirate Club) Letterwinner's Chapter*
9. *Immediate Past President of the Educational Foundation (Pirate Club)*
10. *President of the Alumni Association*
11. *Male Member of the ECU Athletics Hall of Fame appointed by a majority vote of this selection committee for a three (3) year term. This committee member can serve more than one term, but not consecutive terms.*
12. *Female Member of the ECU Athletics Hall of Fame appointed by a majority vote of this selection committee for a three (3) year term. This committee member can serve more than one term, but not consecutive terms.*

13. *One non-voting at large appointee (historian) that has a long standing association with ECU athletics with knowledge of ECU athletics history. Appointed by a majority vote of this selection committee for a three (3) year term. This committee member can serve more than one term, but not consecutive terms.*
14. *Non-voting Secretary as described in Article III, Section 5.*

(Current Section 2: The Hall of Fame Committee shall consist of ten (10) members as follows (as amended October 18, 2002):

1. Chancellor or his designee
2. Director of Athletics or his designee
3. Senior Associate Director of Athletics
4. President of the Educational Foundation (Pirate Club)
5. Immediate Past President of the Educational Foundation (Pirate Club)
6. Chair of the Trustees Athletics Committee (Committee Chair)
7. Vice Chair of the ECU Trustee Athletics Committee
8. President of the Alumni Association
9. Chair of the Trustee Academic Affairs and Student Life Committee
10. Senior Woman Administrator)

Section 3:

Any vacancy which occurs on The Hall of Fame Committee shall be filled as provided in Section 2 herein above.

Section 4: (Proposed for amendment, 2008)

Change to: The Chair of the Hall of Fame Committee shall be the Chair of the ECU Trustees University Affairs Committee or his/her designee (trustee).

(Current Section 4: The Chairman of The Hall of Fame Committee shall be the Chairman of the ECU Board of Trustees' Athletics Committee.)

Section 5:

The Secretary of the Hall of Fame shall be a member of the Athletics Department Administrative Staff as appointed by the Athletics Director. (as amended June 30, 2005)

Section 6: (Proposed for amendment, 2008)

Change to: Seven (7) members of The Hall of Fame Committee shall constitute a quorum for the transaction of business at any regularly called meeting. Meetings may be called by the Chairman, or by the Secretary at the direction of the Chairman, or at the direction of four committee members. Written notice stating the time and place of the meeting shall be delivered not less than ten (10) days prior to the meeting either personally or by mail. However, such notice may be waived by a majority of members at a meeting when a subsequent meeting may be deemed necessary and action is not inconsistent with the provisions of the bylaw.

(Current Section: Six (6) members of The Hall of Fame Committee shall constitute a quorum for the transaction of business at any regularly called meeting.

Meetings may be called by the Chairman, or by the Secretary at the direction of the Chairman, or at the direction of four committee members. Written notice stating the time and place of the meeting shall be delivered not less than ten (10) days prior to the meeting either personally or by mail. However, such notice may be waived by a majority of members at a meeting when a subsequent meeting may be deemed necessary and action is not inconsistent with the provisions of the bylaw.)

Section 7: (Proposed for amendment, 2008)

Change to: Only the Chancellor, Director of Athletics, *Chair of the ECU Trustees University Affairs Committee (Committee Chair) and Chair of the ECU Board of Trustees* at East Carolina University may appoint another person to be his/her designee.

(Current section: Only the Chancellor and Director of Athletics at East Carolina University may appoint another person to be his/her designee.)

Article IV Duties

Section 1:

The Hall of Fame Committee shall be responsible for the selection of inductees for membership in The East Carolina University Athletics Hall of Fame. The said committee shall call for the nomination of candidates with such supporting data as may be specified by the committee. The committee shall authorize such publicity as it considers appropriate in the selection procedure and shall exercise general concern for the integrity and prestige of The East Carolina University Athletics Hall of Fame.

Section 2:

The Hall of Fame Committee shall consult with the Senior Associate Director of Athletics, Executive Director of the ECU Educational Foundation, and the East Carolina University President of Alumni Affairs in planning and promoting the convocation for the induction of members into The East Carolina University Athletics Hall of Fame.

Section 3:

The type of awards given signifying induction into and membership in The East Carolina University Athletics Hall of Fame shall be approved by the committee.

Article V Criteria for Eligibility of CandidatesSection 1:

The candidate should not have represented East Carolina University as a student-athlete for a minimum period of ten (10) years immediately preceding the date of induction or be deceased. The ten (10) year period can be reduced to a period of not less than five (5) years by a unanimous vote of the committee. (As amended May 31, 1990).

Section 2:

The candidate must not be a full-time member of the East Carolina University faculty or staff, in the category for which the inductee is being honored, at the time of election and induction. (As amended May 31, 1990).

Section 3: (Proposed for amendment, 2008)

Change to: The candidate must have attended East Carolina University at least two (2) academic years or must have held a responsible staff position or have been an exemplary supporter of East Carolina University athletics for at least five (5) academic years and must have been in good standing at the termination of such relationship with the University. *The five (5) academic year period can be reduced by at least three quarter ($\frac{3}{4}$) vote of the members of the quorum present at the annual meeting of the committee.*

(Current section: The candidate must have attended East Carolina University at least two (2) academic years or must have held a responsible staff position or have been an exemplary supporter of East Carolina University athletics for at least five (5) academic years and must have been in good standing at the termination of such relationship with the University.)

Section 4:

The candidate's athletic achievements and contribution to sports while at East Carolina University or as an Alumnus/Alumna must have been widely recognized over the area served by the University, enhancing the reputation of the University as well as of himself/herself.

Section 5:

The candidate must be of good character and reputation and not have been a source of embarrassment to the University.

Section 6:

The candidate must have left the University as a graduate, or in good standing, and with the good graces of East Carolina University officials.

Section 7:

All candidates shall be considered without discrimination on the basis of sex, color, or national origin.

Section 8:

A nomination will be eligible for consideration up to three (3) consecutive voting years. At the conclusion of three (3) consecutive years the nomination would be discontinued. Once a three (3) year time period for consideration has ended, the individual can be re-nominated for another three (3) year period. There is no limit to how many times an individual can be nominated. (as amended June 30, 2005)

Article VI Election of Inductees

Section 1:

A maximum of four (4) individuals may be inducted in to the Hall of Fame in any one year. Based upon unanimous vote of the committee, an exception to add additional inductees may be allowed in a given year. (as amended June 30, 2005)

Section 2:

Written nominations should be directed to the Director of Athletics at East Carolina University who will in turn direct the appropriate forms to the Chairman and the Secretary of the Committee.

Section 3:

Nominations must be received no later than May 1 of the year candidate is to be considered for induction.

Section 4:

Names of nominees will be passed to the East Carolina University Director of Media Relations for research of performance, activity and contributions of nominee.

Section 5:

Announcement of solicitation for nominees is to be made in East Carolina University alumni publications and newsletters and in the East Carolina University Educational Foundation (Pirate Club) publications and newsletters during the months of January, February, March, and April.

Article VII Schedule of Dates and Deadlines for Hall of Fame Functions

January, February, March, and April - Announcement of solicitation for nominations.

May 1 - Deadline for receipt of nominations.

June 1 - Completion of nominee briefs by East Carolina University

Director Media Relations.

June - Meeting of the Hall of Fame Committee for purpose of electing inductees. Meeting date to be set by chairman with notification of members by the secretary.

July 15 - Election of inductees completed, recognition plaques, medals, etc. ordered.

Date of Hall of Fame Football Game - Induction Ceremonies

Article VIII Financing

Section 1:

All expenses, as determined by the Committee will be the responsibility of the East Carolina Department of Athletics. The Department of Athletics is at liberty to structure a special event around the Hall of Fame induction weekend, which would generate revenue and further recognition for the ceremony. All revenue generated through such a planned event would go back into the general athletics budget.

Article IX Amendment of Bylaws

Section 1:

These bylaws may be amended by majority approval of the ECU Board of Trustees upon petition by any Trustee or on recommendation of the Chancellor. A majority of the Hall of Fame Committee may petition the Chancellor to recommend amendments to the ECU Board of Trustees. (as amended October 18, 2002)

Adopted by the ECU Board of Trustees: October 18, 2002

Date

Chair, ECU Board of Trustees

Updated/Approved 2/24/06

November, 2008 Amendments Approved:

Date

Chair, ECU Board of Trustees

/LW

MEMORANDUM

TO: Board of Trustees Athletics Committee

FROM: Nick Floyd

DATE: October 31, 2008

RE: Athletics Financial Reports

The attached financial report contains information for the current fiscal year through October 24, 2008.

As seen on the report, the year is off to an excellent start with football revenues exceeding the budget by nearly \$400,000. This has allowed the department to proceed with beneficial unbudgeted minor facility projects and contractual adjustments that account for the overages in administration and repairs and replacements.

Please also note the accounting adjustment on the report that alters some of the figures in other revenue and men's and women's sports' expenditures, however, this adjustment does not have a material effect on the bottom line.

These developments have led to an upward revision in the amount of the anticipated surplus, and at this point in time the outlook for the remainder of the year is very positive.

In addition, a sheet detailing the growth of the athletics budget from fiscal year 1997 to the present is also included for your information as requested at the last meeting.

Thank you for your ongoing support of the athletics program, and please let us know if you would like to discuss this report in greater detail.

NF/bs

EAST CAROLINA UNIVERSITY ATHLETIC FUND
FINANCIAL REPORT FY 2008 - 09

REVENUE	Budgeted	Actual	Projected	Actual
	<u>7/1/2008</u>	<u>10/24/2008</u>	<u>6/30/2009</u>	<u>Over/(Under)</u>
				<u>Budget</u>
Football Revenue (tickets,game guarantees)	\$ 5,425,000	1,283,593	5,815,885	390,885
Football: Bowl Revenue	0	0	0	0
Other Sports Revenue	813,000	320,137	813,000	0
Marketing & Promotions	600,000	1,514	600,000	0
Pirate Club Pledge - Scholarships	4,000,000	0	4,000,000	0
Student Fees	9,500,000	4,754,256	9,500,000	0
Gifts In Kind Accrual (Courtesy Cars, NIKE)	359,550	0	359,550	0
NCAA / C-USA Distributions	2,748,000	23,796	2,748,000	0
Other (Licensing,Interest Earned,Concessions, Pepsi Pouring Rights,Restricted Private Gifts, Processing Fees, Parking, & Miscellaneous)	<u>\$ 1,372,000</u>	<u>158,869</u>	<u>1,103,168</u>	<u>(268,832) **</u>
	<u>\$ 24,817,550</u>	<u>6,542,165</u>	<u>24,939,603</u>	<u>122,053</u>
EXPENDITURES	Budgeted	Actual	Projected	Actual
	<u>7/1/2008</u>	<u>10/24/2008</u>	<u>6/30/2009</u>	<u>Under/(Over)</u>
				<u>Budget</u>
Football	\$ 6,778,725	2,523,299	6,778,725	0
Football: Bowl Game	0	13,156	1,074	(1,074)
Other Men's Sports	3,643,225	1,127,710	3,534,225	109,000 **
Women's Sports	4,041,040	1,442,617	3,861,040	180,000 **
Administration/Other Support Areas	8,677,610	3,301,150	8,850,173	(172,563)
Game Operations	997,850	206,072	997,850	0
Repairs / Replacements	<u>372,450</u>	<u>194,712</u>	<u>502,150</u>	<u>(129,700)</u>
Total	<u>24,510,900</u>	<u>8,808,716</u>	<u>24,525,237</u>	<u>(14,337)</u>
Net Operating Income / (Loss)	306,650	(2,266,551)	414,366	107,716
Fund Balance Increase/(Decrease)	<u>\$ 306,650</u>	<u>(2,266,551)</u>	<u>414,366</u>	<u>107,716</u>
Beginning Fund Balance	(255,004)		(255,004)	
Ending Fund Balance	<u>\$ 51,646</u>		<u>159,362</u>	

** - The FY 08-09 Athletic Budget that was presented at the Sept. board meeting included \$300,000 to be transferred from the Pepsi Pouring Rights Contract Athletics Grants In Aid Endowment Fund to Athletics Revenue. The Comptrollers Office has since determined it would be more appropriate to charge Grant In Aid expenses directly to this Fund rather than transfer money. This adjustment is reflected in Projected Revenue - Other (\$300,000) and Projected Expenditures - Other Men's Sports (\$120,000) / Women's Sports (\$180,000).

**EAST CAROLINA UNIVERSITY ATHLETIC DEPARTMENT
YEAR - TO - YEAR BUDGET COMPARISON**

		<u>% change</u>
Total 1996 - 97 Budget	\$ 9,856,313	
Total 1997 - 98 Budget	\$ 10,924,600	10.84%
Total 1998 - 99 Budget	\$ 11,364,191	4.02%
Total 1999 - 00 Budget	\$ 13,177,100	15.95%
Total 2000 - 01 Budget	\$ 13,698,495	3.96%
Total 2001 - 02 Budget	\$ 15,224,135	11.14%
Total 2002 - 03 Budget	\$ 15,774,375	3.61%
Total 2003 - 04 Budget	\$ 17,630,190	11.76%
Total 2004 - 05 Budget	\$ 17,606,500	-0.13%
Total 2005 - 06 Budget	\$ 19,429,735	10.36%
Total 2006 - 07 Budget	\$ 21,505,725	10.68%
Total 2007 - 08 Budget	\$ 23,172,855	7.75%
Total 2008 - 09 Budget	\$ 24,510,900	5.77%

NOTE - Original Budget starting with FY 2006 - 07 includes accrual Gift In Kind figures for Nike equipment and courtesy cars.

11/10/2008
Barry Brickman

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EAST CAROLINA ATHLETICS

2008-2009 Informational Recaps - Fall Update

FOOTBALL

- The Pirates, under the direction of fourth-year head coach Skip Holtz, have recorded a 4-3 overall record and a 2-1 Conference USA mark as of Nov. 1 this season ... East Carolina opened the campaign in national headline-making fashion, winning its first three games - including two against nationally-ranked opponents (27-22 vs. No. 17 Virginia Tech and 24-3 vs. No. 8 West Virginia).
- The early season success vaulted ECU into college football's Top 25 polls for the first time since 1999, earning a No. 14 ranking Sept. 7 (post-West Virginia) before following with No. 15 (Sept. 14/post-Tulane) and No. 23 (Sept. 21/post-N.C. State) standings.
- East Carolina's 24-3 win over No. 8 West Virginia Sept. 6 marked the Pirates' third-straight victory over a nationally-ranked opponent - a first since the 1991 season ... In addition, ECU's triumph over the Mountaineers also served as the program's biggest victory (in terms of ranked opponents) in school history - topping a 27-23 win over No. 9 Miami (Fla.) on Sept. 25, 1999 in Raleigh ... The Pirates are 3-3 against nationally-ranked opponents in the Holtz Era, facing off against No. 4 WVU (L/27-10 on 09/23/06), No. 9 Virginia Tech (L/17-7 on 09/01/07), No. 5 WVU (L/48-7 on 09/22/07), No. 24 Boise State (W/41-38 on 12/23/07), No. 17 Virginia Tech (W/27-22 on 08/30/08) and No. 8 West Virginia (W/24-3 on 09/06/08) ... The No. 3 Miami Hurricanes in 1987 have been the highest-ranked opponent to ever visit Dowdy-Ficklen Stadium (UM 41-3).
- East Carolina is just one of three non-BCS league members that have four non-conference contests scheduled against BCS opponents in '08 and have followed by posting the top won-lost record among the trio in such games (2-2) ... Other non-BCS members which have or will face four BCS opponents this year are Hawai'i (currently 0-2) and Middle Tennessee State (1-3) ... Navy and Western Kentucky also play four but compete as an independent.
- Since 2003, ECU stands sixth nationally among all non-Bowl Championship Series programs with six victories against automatic-qualifying BCS members - Navy (13), Utah (12), TCU (10), Fresno State (9), BYU (7).
- The Pirates currently rank among the top 50 programs nationally in the following statistics: pass efficiency (43rd/134.94), punt return defense (39th/6.5), passes intercepted (33rd/9), passed had intercepted (12th/4), turnovers gained (49th/15), net punting (24th/37.1), 3rd down percentage defense (34th/33.7), 4th down percentage offense (46th/50.0), 4th down percentage offense (48th/41.7), tackles for loss (17th/7.3), sacks (43rd/2.1), redzone efficiency defense percentage (8th/33.3) and redzone efficiency offense percentage (20th/89.5).
- ECU ranks among the top three C-USA teams in the following statistics: pass defense (3rd/202.1), total defense (3rd/346.4), scoring defense (1st/23.6), tackles for loss (2nd/7.3) and sacks (3rd/2.1).
- East Carolina has already booked double-digit defensive totals to three opponents in '08 - allowing a paltry 72 pass yards to WVU Heisman Trophy candidate Pat White, 76 rush yards to Tulane and just 82 air yards to Memphis' gifted corps of receivers.
- Holtz' Pirates continued to attract record-setting crowds at Dowdy-Ficklen Stadium on Saturdays during the fall, enhancing their standing as one of C-USA's attendance leaders on an annual basis ... In all, a total of 5,897,482 fans have seen the Pirates in action since 1963, and so far in the Skip Holtz Era, ECU has averaged 38,296 (765,922/20 games) ... East Carolina drew 41,216 (12th) for the Memphis game Oct. 18 after welcoming 43,641 for the Houston battle Sept. 27 and 43,610 to its '08 home opener against West Virginia Sept. 6, the fourth and fifth-highest attendance totals in stadium history and two largest in the Holtz Era ... In all, ECU has drawn six of Dowdy-Ficklen Stadium's top 10 crowds since Holtz' arrival (and 10 of 15).
- ECU's 8-5 mark last year and its 7-6 record in 2006 represent the Pirates' first consecutive winning seasons since 1999-2000 ... With that said, the Pirates will attempt to post their third consecutive winning season in 2008, which would be a first at ECU since the 1998, 1999 and 2000 campaigns (also accomplished in '94, '95 and '96).
- Although East Carolina concluded its 2008 non-conference schedule with a 35-20 loss at Virginia Oct. 11, the Pirates were still able to match their best non-league record (2-2) since running the table in non-Conference USA action with a perfect 5-0 mark in '99.
- Skip Holtz picked up his 24th win at East Carolina against Memphis Oct. 18 in his 44th game heading the Pirate program - the second-quickest rise in ECU's modern era (Pat Dye heads the list by winning game No. 24 in his 33rd contest as an ECU head coach ... Only Dye, Sonny Randle (1971-73) and Holtz have produced a pair of winning seasons during their first three years at the helm of the Pirate program.

BASEBALL

- Billy Godwin enters his fourth season at the helm of the Pirate baseball program and has posted a 115-70 overall record which is seventh all-time.
- The Pirates return 22 lettermen from a squad that went 42-21 in 2008 and made their ninth NCAA Regional in the last 10 years ('08 Conway Regional - No. 2 seed).
- Returning this season are All-America selection Seth Maness; All-Conference USA performer Stephen Batts, C-USA All-Freshman Team choice Dustin Harrington, All C-USA Tournament Team pick Kyle Roller and Conway Regional All-Tournament performer Brandon Henderson.

- ECU lost 12 players from last year's squad, including three to the Major League Baseball Amateur Draft (Justin Bristow, Corey Kemp and T.J. Hose), but will welcome 14 newcomers in '09.
- ECU's 2008 recruiting class received a top 50 national ranking by Baseball America and Collegiate Baseball.
- Thirty-five home games at Clark-LeClair Stadium, including the Sixth Annual Keith LeClair Classic, highlight the 2009 schedule.
- Nineteen teams on this year's docket recorded 30 or more wins a year ago with nine of them topping the 40-win plateau; 11 schools earned a bid to participate in the NCAA Regional in 2008 with a pair making it to the College World Series, while four finished last season ranked in the top 25.
- ECU's home non-conference schedule is highlighted by the annual Keith LeClair Classic (Feb. 28-Mar. 1) pitting the Pirates against St. John's, Oklahoma State and College of Charleston. Also scheduled for weekend series in Greenville are 2008 NCAA Regional participants UCLA and Louisiana-Lafayette, while UNC-Asheville comes to town for a pair of weekday contests.
- The Pirates also have home-and-home series against Campbell, Elon, North Carolina, N.C. State and UNC-Wilmington, while also matching up against Norfolk State.
- ECU will travel to Georgia Southern for a three-game tournament and will have league trips to Marshall, UAB, Tulane and Houston.

BASKETBALL (MEN)

- The men's basketball program will begin its 77th season of competition on Friday, Nov. 14 against Coker College, the first of five consecutive home games to start the season. The schedule is composed of 16 total home games and includes a contest against national runner-up Memphis and a first-ever visit by Wake Forest.
- Seniors Sam Hinnant and James Legan will serve as team captains in 2008-09. Lindy's College Basketball named Hinnant Best Shooter in Conference USA.
- Three walk-ons have been added to the roster: junior Derek O'Bryan and freshmen Howard Hurt and Matt Steele.
- The Pirates have eight returning lettermen on the roster with six newcomers set to don the purple and gold.
- Approximately 100 high school and middle school coaches from 40 schools attended the ECU Basketball Coaching Clinic on Oct. 19.
- Basketball Hall of Fame member Charles Barkley hosted the first edition of Pirate All-Access on Oct. 25.

BASKETBALL (WOMEN)

- The 2008-09 East Carolina women's basketball team has its sights set high this season. With four returning starters and eight returning letterwinners, seventh-year head coach Sharon Baldwin-Tener has plenty of weapons in her arsenal as the Lady Pirates look to win their second C-USA championship in three seasons and a return trip to the NCAA Tournament.
- ECU represents the only program in C-USA to return two of the league's top 10 scorers in senior guards Jasmine Young and LaCoya Terry. Both players were named to the Preseason All-Conference USA Team as the Lady Pirates are the lone squad in the league with more than one preseason honoree. Terry represents the returning players' top scorer (15.4 points per game) and rebounder (5.0 rebounds per contest).
- Young and Terry both enter the season having eclipsed the 1,000-point mark for their careers. Currently, Young is the ninth-leading scorer in program history while Terry is 17th on the career chart.
- Baldwin-Tener owns 85 victories as head coach of the program. She is just 20 wins behind second-place Cathy Andruzzi.
- The Lady Pirates have produced a winning record inside Mingos Coliseum for six consecutive seasons.
- Baldwin-Tener welcomes a talented corps of five newcomers this season, all of which hail from North or South Carolina.

CROSS COUNTRY

- Winding down another successful season, the East Carolina cross country teams will compete at the Conference USA Championship in Memphis, Tenn. on Nov. 1 and then in the NCAA Southeast Regional in Winston-Salem on Nov. 15.
- Both the men's and women's teams have turned in two second-place finishes this season, at the N.C. State Raleigh Invitational and the ECU Pirates Invitational.
- Freshman Zack Montijo has been the top performer for the men this season, pacing the squad in every meet so far. Following his team-best, and eighth-place overall, finish at the N.C. State Raleigh Invitational, he was named the Conference USA Cross Country Male Athlete-of-the-Week on Sept. 16.
- Sophomore Brittany Copeland picked right up where she left off at the conclusion of her freshman year, leading the team in every race in which she has competed. Copeland also notched the sixth-best 6K time in program history, finishing in 22:09 at the Pre-National NCAA Meet in Terra Haute, Ind. on Oct. 18.

GOLF

- The Pirates finished the fall portion of their schedule with a 52-14-2 overall record.

- In five fall events, they claimed a share of first at the UNCG-Starmount Fall Classic with a tournament score of 894. ECU also took second in its Lady Pirate Intercollegiate (899), third at the Chip-N Club Invitational (897) and sixth at the Windy City Collegiate Classic (917) and the Landfall Tradition (922).
- On the season, the Pirates have picked up wins against: Florida International, Georgia State, Illinois, Iowa State, Kansas, Maryland, Miami (Fla.), Mississippi State, Nebraska, (31) N.C. State, Northwestern, (24) Notre Dame, Texas State, UNC-Wilmington, UNLV, USF and UTEP (all ranked in top-100 as of Oct. 23, 2008).
- After receiving its first ever national ranking in the collegiate polls last October 1 (No. 20/*Golfweek*), the Pirates are currently ranked No. 48 by *Golfstat* (10/25/08) and No. 53 by *Golfweek* (10/22/08).
- ECU hosted the 2008 Lady Pirate Intercollegiate, its first home tournament since October of 2006, at the par-71, 5,939-yard Greenville Country Club. Of the 20-team field, nine teams were ranked in *GolfWeek's* Top 100. The Pirates took second place with an 899 score, while three Pirates finished in the top 10 (Bools/t-3rd; Puche/t-8th; Littman/t-10th).
- Kevin Williams currently owns a 757-322-13 (.699) overall record as the Lady Pirates head coach. Overall as a head coach at ECU he sports an overall record of 1744-1130-39 (.605).
- Abby Bools picked up her fourth and fifth career C-USA Golfer-of-the-Week awards on Oct. 22 and Oct. 29 after claiming all-tournament honors at the 2008 Lady Pirate Intercollegiate and finishing second at the Landfall Tradition Tournament, respectively ... Finished among the top four on four occasions during the fall season, taking second at the UNCG-Starmount Fall Classic and the Landfall Tradition; tied for third at the Lady Pirate Intercollegiate and fourth at the Chip-N Club Invitational ... Finished with a team-best 74.60 stroke average for the fall ... Four of 15 rounds were par or better (.267) ... Recorded two rounds of 68, which is tied for the third-lowest individual 18-hole score in school history ... For her career, Bools owns a 75.93 stroke average (third-lowest in school history) and has recorded 14 top 10 finishes and 17 top 20 placements.
- Amber Littman ended the fall season with a 74.90 stroke average in five events, which included a top five finish, two top 10's and five top 15's ... Two of 15 rounds were par or better (.133) ... Twelve of 15 rounds were 75 or better ... Highest finish of the season came at the Landfall Tradition (t-4th), where she carded a season-low 222 (74-74-74) ... For her career, she owns a 75.04 stroke average in 45 rounds and has eight career top 10 and 11 top 20 finishes.
- Ana Maria Puche picked up her first career C-USA Golfer-of-the-Week award on Oct. 8 after carding a personal-best 54-hole score of 222 (78-73-71) to take sixth place at the 2008 Windy City Collegiate Classic ... Three of 15 rounds were par or better (.200) ... Finished fall season with a 76.47 stroke average ... Tied career-low round of 71 at the Windy City Collegiate Classic (third round) ... Recorded two top 10 and three top 20 standings ... Owns a career stroke average of 76.47, which ranks sixth all-time at ECU ... Has six career top 10 and 13 top 20 placements.
- The East Carolina men's squad participated in five tournaments during the fall season, three as a team and two as individuals. The Pirates earned a fifth-place finish at the Raines Development Intercollegiate to open the year.
- Freshmen Jake Colley, Conner Sock and Harold Varner each recorded a top 10 finish during the semester. Varner played six total rounds and shot par or better in five of them.
- Junior Tripp Brizendine registered the best individual finish of the season by tying for third place at the Duke Individual Collegiate.
- The Pirates begin their spring season at the Rio Pinar Invitational in Orlando on February 23.

SOCCER

- The East Carolina soccer team owns an overall mark of 11-3-4 and an unbeaten ledger of 6-0-4 in Conference USA play.
- Currently tied for first-place in the C-USA standings with Memphis, the Pirates can clinch no worse than a share of their first conference title with a win over Marshall on Oct. 31. With a victory, ECU will also clinch the No. 1 seed for the 2008 C-USA Championship at Rice next week.
- With a 2-2 draw at UAB, the Pirates finished their C-USA road ledger unbeaten, a first in program history.
- ECU is just one win away from setting program single season records for overall and C-USA triumphs.
- Tenth-year head coach Rob Donnenwirth has a career record of 95-70-27, making him the all-time winningest coach in program history. He has also led the Pirates to six 10-win seasons in the past 10 years.
- East Carolina finds itself ranked No. 8 in the Southeast Region polls of *Soccer Buzz*, the exclusive collegiate publication of women's soccer, and the National Soccer Coaches Association of America (NSCAA).
- Seniors Amber Campbell and Madison Keller have combined to win three C-USA Defensive Player-of-the-Week awards.
- Campbell now owns three ECU career records as she holds standards in goalkeeper minutes, saves and shutouts. She was also named to the *Soccer Buzz* Elite National Team-of-the-Week on Oct. 22.

SOFTBALL

- For the second year in a row, the East Carolina softball team will compete against a challenging slate full of nationally-ranked opponents. Ten NCAA regional teams from 2008, including two Women's College World Series participants, are included in the 2009 schedule.

- During the 2008 season, East Carolina won the first NCAA Tournament game in program history. On May 17, the Pirates defeated Mississippi Valley State, 4-2, as Brooke Swann recorded her 25th victory of the year. Angel Barrella and Cristen Aona both drove in runs for ECU and Christina Merrida finished the contest 3-3 at the plate.
- The '08 Pirates not only enjoyed a successful season on the field, but also in the classroom. ECU's academic achievements were recognized by the National Fastpitch Coaches Association (NFCA) when the organization announced that Tracey Kee's program had compiled the 44th-best GPA of all NCAA Division I softball teams during the 2007-08 school year. The Pirates finished the season with a cumulative mark of 3.229. Additionally, the team was honored with the Conference USA Sport Academic Award..

SWIMMING AND DIVING

- The East Carolina women's squad has gotten off to a 5-1 start while the men's team has also opened the 2008-09 season with a 5-1 mark.
- Senior swimmer Amanda Duncan and freshman diver Katie Yamamoto have each received weekly Conference USA honors. Duncan has won all six 100-yard butterfly races in which she has competed this season. Her time of 0:56.00 in the 100 fly against Davidson is the fastest by any C-USA swimmer this season.
- The College Swim Coaches Association of America named the men's squad a Division I Academic All-America team.
- The Pirates set seven McCarthy Pool records during their meet in Washington, D.C. against Georgetown.

TENNIS

- The East Carolina tennis teams have prepared for their spring season with strong showings in their fall tournaments. The men have posted a total of 32 singles wins and 12 doubles victories in three events while the women have amassed 41 singles triumphs and 13 doubles wins in three tournaments.
- Junior Stephen Whitwell has paced the men thus far with a 6-1 record, which included a 4-0 ledger (all straight-set victories) at the UNC Wilmington Fall Invitational and a B-2 Flight Championship. Senior Aleksey Kochetov also captured the consolation championship at the UNC Fall Invitational.
- Junior Brooke Walter showed well for the women, accruing eight singles wins to just two losses. She was undefeated at the Wofford Invitational, producing a 3-0 mark.

TRACK

- Both the men and women's track and field programs will again reside under Director Curt Kraft's watch. After the retirement of Bill Carson last October, Kraft assumed the role of head coach for both the men's and the women's teams. A total of 98 student-athletes are eager to begin the 2008-09 indoor season, which is slated to start December 6 at Christopher Newport.
- Carson was inducted into the East Carolina Athletics Hall of Fame during a ceremony held at Harvey Hall inside the Murphy Center on Oct. 17.

VOLLEYBALL

- The East Carolina volleyball team tied the best start in school history after having an 11-5 record to begin 2008. Included in those 11 wins was a program-best nine match home winning streak which extended back to the end of the 2007 campaign.
- With the team's 12 victories so far this season, head coach Chris Rushing is now just five wins away from become the all-time coaching wins leader at ECU. During his four years with the Pirates, Rushing has accumulated 67 wins and trails only Alita Dillon, who totaled 71 wins from 1977-80. Rushing already holds the highest winning percentage of any ECU coach at .554.
- Trish Monroe has enjoyed a stellar senior campaign, moving into fifth-place on the Conference USA digs in a career leaderboard. In the final match of her junior season, she set the ECU record for digs in a career and has extended her lead throughout this season. At her current pace, she is likely to continue her ascent up the C-USA chart and could finish as high as No. 3 on the career list by the end of the season.
- Monroe has garnered several honors this year, including being named Conference USA Defensive Player-of-the-Week on Sept. 15 and earning an all-tournament selection at Wake Forest, High Point and East Carolina's own event.

Annual Report on Intercollegiate Athletics 2006-07

The following annual report is presented to the Board of Trustees pursuant to Policy 1100.1 "Intercollegiate Athletics" of the UNC Board of Governors (see Appendix A).

A) Philosophy and Organization of the Athletics Program

Mission

The primary mission of the Department of Athletics is to bring positive recognition to East Carolina University through a program built on concepts such as excellence, integrity, and enthusiasm. The athletics program at ECU is comprised of 19 varsity sports, nine men's and 10 women's. The student development department for student-athletes offers a variety of student services for over 400 student-athletes competing in the ECU athletics program. The athletic training department offers the very best in care and prevention of athletically related injuries. The highly visible athletics program is committed to NCAA compliance, strong academic standards, the quality of its staff, and maintaining a national reputation for innovative and progressive athletic marketing strategies.

The Department of Athletics will focus on the overall development of all persons participating in athletics. Ethical conduct and good sportsmanship will be strongly promoted among alumni and friends, athletics department staff and, most importantly, student-athletes. The Department of Athletics is committed to supporting the academic progress of student-athletes and the achievement of their educational objectives. The department is also committed to offering equitable opportunities for all students and staff, including women and minorities.

Organization

The chancellor is responsible for the athletics program and along with the director of athletics, establishes athletics goals for the university. The athletics director reports directly to the chancellor and is responsible for the everyday administration and supervision of the program. See Appendix B for the department of athletics organizational chart.

The University Athletics Committee (UAC) serves as an advisory group to assist the chancellor with oversight of the athletics program (see Appendix C for the committee charge). The UAC is an academic committee of the faculty senate and focuses on admissions, compliance, student-athlete eligibility to compete, and personnel. The faculty athletics representative is a member of the UAC and serves as an advisor to the chancellor on athletics department matters in the areas of student-athlete welfare, academic integrity and rules compliance.

B) Admission Policy for Student-Athletes

The admission policy is the same for student-athletes as for the general student population. Student-athletes are admitted in accordance with UNC System Policy 700.1.1 regarding Minimum Course Requirements for Undergraduate Admission (see Appendix D). A student who does not meet minimum course requirements (MCR) may be considered an exception and given special consideration. Those students are admitted with a chancellor’s waiver based on recommendation from a review team, which includes faculty representation.

The admission policy as outlined in the East Carolina University Undergraduate Catalog is as follows:

The university seeks to admit undergraduate students who show evidence of being able to succeed in and benefit from academic programs of the rigor offered. The admission decision is based on those criteria indicative of performance and potential as listed below. The chancellor or his designee may admit students whose special talents indicate success in programs requiring those talents. In addition to the above, the Board of Trustees has authorized the Admissions and Retention Policies Committee, at its discretion, to require a personal interview and/or any test deemed advisable.

C) Exceptions to Minimum Course Requirements

Table 1 below provides the number of MCR exceptions for all entering freshmen in fall 2006 and for all entering recruited freshmen student-athletes in fall 2006.

Table 1
MCR Exceptions
Freshmen Entering Fall 2006

Students		Recruited Student-Athletes	
Total	MCR	Total	MCR
3,855	TBD	106	9

D) Academic Profile of Entering Freshmen Student-Athletes

Table 2 provides the academic profile of entering recruited freshmen student-athletes fall 2006 by sport. Note that if any team had three or fewer freshmen in the 2006 cohort the scores are not provided to prevent identification of any specific student.

Table 2
Recruited Freshmen Student-Athlete Academic Profiles for Each Sport
Recruited Freshmen Entering Fall 2006

Sport	Average GPA*	Average SAT
Baseball	3.447	1098
Men's Basketball	2.937	902
Women's Basketball	0	0
Men's Cross Country	0	0
Women's Cross Country	0	0
Football	2.87	852
Men's Golf	0	0
Women's Golf	0	0
Women's Soccer	3.511	1081
Softball	3.721	1102
Men's Swimming	3.195	1115
Women's Swimming	3.225	978
Men's Tennis	3.244	964
Women's Tennis	0	0
Men's Track	2.836	974
Women's Track	3.150	986
Volleyball	3.657	1031
All Freshmen Student-Athletes	3.236	1001

* Core GPA as defined by the NCAA.

0 Data is not provided when either 1) the number of individuals is three or fewer and student-athletes may therefore be identifiable or 2) there were no freshman student-athletes for that team in fall 2006.

E) Majors Chosen by Student-Athletes

Review of data on the entire student-athlete population indicates that student-athletes select majors across a broad area of disciplines. The University Athletics Committee regularly reviews the distribution of majors among student-athletes to monitor for clustering of majors and has found no cause for concern. The discipline with the highest percentage of student-athletes majors is business administration, followed by communication.

Only a small number of programs at East Carolina University accept freshmen as declared majors. Most freshmen enter as general college students until they meet requirements to officially declare their major. Student-athletes are not required by NCAA regulations to

designate or declare a major until the beginning of their third year. Table 3 provides the declared majors for the fall 2006 recruited freshmen student-athlete class upon entrance to the university.

Table 3
Student-Athlete Majors
Recruited Freshmen Entering Fall 2006

Major	Students
Education	1
Engineering	1
Engineering Technologies/Technicians	3
Family and Consumer Sciences/Human Sciences	1
General College/Undecided	100
Total	106

F) Academic Progression of Student-Athletes

To ensure that student-athletes are making satisfactory progress toward graduation, the university monitors all student-athletes for compliance with NCAA Bylaw 14.4 – Progress-Toward-Degree Requirements. Bylaw 14.4 outlines credit hour, minimum grade point average and percentage of degree requirements. Student-athletes who are not making satisfactory progress toward a degree are declared ineligible and not allowed to participate in athletics competition. The academic integrity subcommittee of the University Athletics Committee monitors the academic progress of each student-athlete every semester.

Table 4 provides the six-year graduation rates for students and student-athletes entering the university in 2001. The student rate is the rate for all undergraduate students who were enrolled in a full-time program of studies for a degree. The student-athlete rate presents information on two different groups: 1) the graduation rate for *scholarship* student-athletes – those student-athletes who entered in 2001-02 and who received athletics aid for any period of time during their first year and 2) the graduation rate for *recruited* student-athletes – those student-athletes who entered in 2001-02 and who were recruited to participate in athletics at the institution but who may or may not have received athletics aid during their first year.

Table 4
Six-Year Graduation Rates
2001-02 Freshmen Cohort

2001-02 Freshmen Cohort	Graduation Rate	
All Students	54%	
	Scholarship Student-Athletes [^]	Recruited Student-Athletes [*]
Student-Athletes	60%	61%
Baseball	54%	54%
Men's Basketball	33%	25%
Women's Basketball	57%	67%
Men's Cross Country/Track	86%	77%
Women's Cross Country/Track	75%	80%
Football	60%	50%
Men's Other	59%	63%
Women's Other	60%	63%

[^] Freshmen student-athletes who entered in 2001-02 and received athletics aid during their first year.

^{*} Freshmen student-athletes who were recruited to participate in athletics at the institution but who may or may not have received athletics aid during their first year.

Table 5 presents the NCAA Graduation Success Rate (GSR). The GSR is also a six-year graduation rate, but is computed from a four-class aggregate of entering student-athletes from 1998 through 2001. This rate adds to the first-time freshmen, those who entered mid-year as well as student-athletes who transferred into the institution. In addition, the GSR subtracts allowable exclusions (those who either die or become permanently disabled, those who leave school to join the armed forces, foreign services or attend a church mission), as well as those who leave but who would have been academically eligible to compete had they returned to the university.

The NCAA developed the GSR to provide a more accurate picture of student-athlete success by accounting for students who leave in good academic standing and for students who transfer into the institution.

Table 5
NCAA Graduation Success Rate
1998-2001 Cohorts

NCAA Graduation Success Rate (GSR)	4-class Average 1998-2001 Cohorts
Student-Athletes	78%
Baseball	69%
Men's Basketball	67%
Women's Basketball	92%
Men's Cross Country/Track	76%
Women's Cross Country/Track	83%
Football	74%
Men's Other	71%
Women's Other	88%

G) Athletics Fundraising

The East Carolina University Educational Foundation is so named for serving as the fund raising arm of East Carolina University's Division I Athletics Program. The East Carolina Educational Foundation (Pirate Club) seeks to bring positive recognition to the university and the region it serves through a competitive athletics program. The Pirate Club's mission is to conduct annual fund campaigns in support of student-athlete scholarships and to lay the foundation for capital campaigns whose purpose is athletics facility enhancements and other programmatic needs. An annual audit and financial report takes place each academic year by an independent firm with the most recent annual audit being for the academic year 2006-07. Appendix E is attached, pursuant to Policy 600.2.5, which requires the annual independent audit to be reported to the institutions Board of Trustees and the President for review.

POLICIES
The University of North Carolina
Board of Governors

1100.1

ADOPTED 10/11/85
REPLACED 5/9/03

INTERCOLLEGIATE ATHLETICS

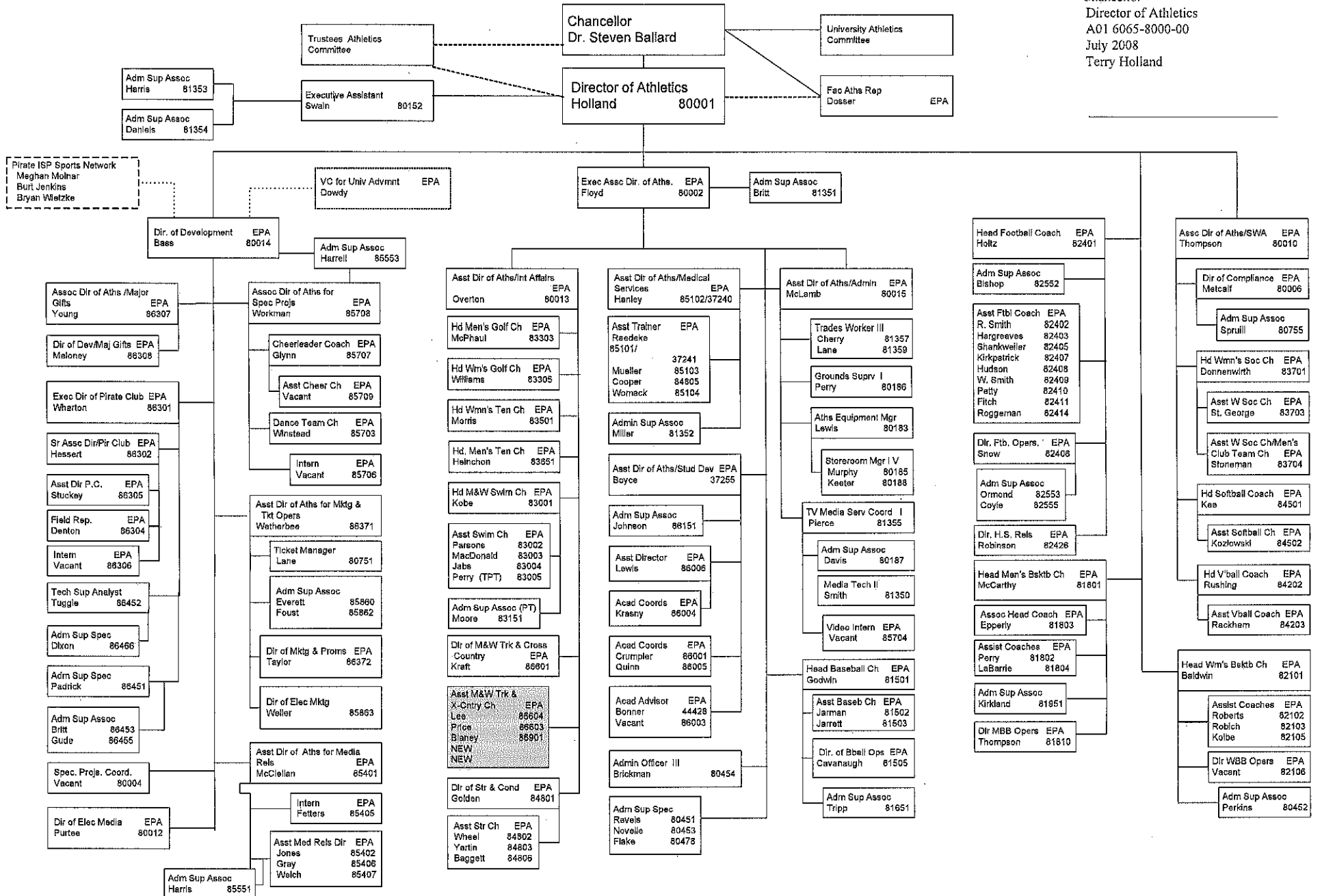
1. The Board of Governors has delegated the responsibility for intercollegiate athletics to the chancellors under the Code's Delegation of Duty and Authority. That delegation is subject to the requirements and mandates in this policy.
2. The chancellors shall ensure that all athletes admitted to the institution are capable of progressive academic success and graduation within six years.
3. The chancellors shall ensure that the policies for admission of student athletes are reviewed by appropriate members or bodies of the faculty and that any recommendations or advice from those members or bodies are received and considered.
4. The chancellors shall ensure that exceptions or waivers for the admission of student athletes are reviewed by appropriate members or bodies of the faculty and that any recommendation concerning these applicants are received and considered by the chancellors in a timely manner.
5. The chancellors shall ensure that student athletes follow a coherent course of study that is designed to accomplish reasonable progress toward a baccalaureate degree.
6. Chancellors shall ensure that the tutorial and remedial programs for student athletes will be administered by appropriate academic offices in cooperation with athletic department officials.
7. The chancellors shall ensure that athletes who are not making satisfactory academic progress are not allowed to continue as team players.
8. The chancellors shall ensure that a mandatory drug-testing program for student athletes is implemented and monitored.
9. The chancellors shall ensure that formal awareness programs on the dangers of gambling in athletics is implemented.
10. The chancellors shall ensure that the institutions conform with NCAA standards.

11. The chancellors shall ensure that all foundations, clubs, and associations established primarily to raise money on behalf of constituent institutions are audited annually and that those audits are reviewed by the institutional Boards of Trustees and are forwarded to the President.
12. The chancellors shall ensure that the position of director of athletics is separate and distinct from the position of a coach of any sport.
13. The chancellors shall submit an annual report to the Board of Trustees of the constituent institutions with a copy to the President, who will report to the Board of Governors. The annual report shall be designed according to criteria and format defined by the Office of the President and shall include the following elements:
 - (a) organization and philosophy of athletics programs;
 - (b) the admission policy for student athletes including the definitions utilized for exceptions to campus-based criteria;
 - (c) student-athlete exceptions to the minimum course requirements set by the Board of Governors and defined in Policy 700.1.1 and Regulation 700.1.1.1[R];
 - (d) the student-athlete profiles for admitted student athletes including SAT/ACT scores, high school grade point averages and NCAA classifications;
 - (e) information about the majors or programs of study chosen by student athletes;
 - (f) academic progression information for student athletes and six-year graduation rates; and
 - (g) information about "booster" club organizations and procedures.
14. The chancellors shall report to the Board of Trustees the student-athlete exceptions to the institution's undergraduate admissions criteria.
15. The chancellors shall ensure that the annual report is forwarded to appropriate members or bodies of the faculty and that any response from such members or bodies is received and considered by the chancellors.

This policy consolidates policies 1100.1 and 1100.2

Appendix B

EAST CAROLINA UNIVERSITY
 Chancellor
 Director of Athletics
 A01 6065-8000-00
 July 2008
 Terry Holland



Appendix C

<p>East Carolina University Faculty Senate UNIVERSITY ATHLETICS COMMITTEE CHARGE Faculty Senate Resolution #05-49, December 2005</p>
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1. Name: University Athletics Committee
2. Membership:
8 faculty members. 5 elected by the Faculty Senate, 3 appointed by the Chancellor.

Ex-officio members (with vote): The Chair of the Faculty, NCAA Faculty Athletics Representative, President of the Student Government Association, President of the Alumni Association, and President of the Pirate Club or their alternates.

Ex-officio member (without vote but with all other parliamentary privileges): Chancellor, Provost/Vice Chancellor for Academic Affairs, Director of Athletics, Assistant Director of Athletics for Student Development, Director of Compliance, Chair of the University Academic Standards Committee; or their designees, and the President of the Student Athlete Advisory Council.
3. Quorum: 5 faculty members exclusive of ex-officio.
4. Committee Functions:
 - A. The Committee is concerned with issues pertaining to intercollegiate athletics at East Carolina University.
 - B. The Committee's primary functions are oversight responsibility in the area of academic integrity, compliance with NCAA rules and regulations, and the overall development of student athletes.
 - C. The Committee is also concerned with general issues such as budget, conference matters, fund-raising, and public relations are inclusive in the charge, but not restricted to those cited.
 - D. The Academic Integrity Subcommittee, composed of the faculty members on the committee, will report on the academic quality of the athletic program.
 - E. The Committee reviews at least annually those sections within the *University Undergraduate Catalog* that corresponds to the Committee's charge and recommends changes as necessary.
5. To Whom the Committee Reports:
 - A. The Committee makes recommendations concerning the implementation and administration of policies and procedures pertaining to intercollegiate athletics at East Carolina University to the Chancellor.
 - B. The Committee reports to the Faculty Senate concerning its recommendations to the Chancellor and/or requests it has received from the Chancellor.
 - C. The Committee makes recommendations concerning academic policies that impact the academic integrity of the athletic programs to the Faculty Senate.
 - D. The Academic Integrity Subcommittee will report its evaluations of the academic integrity of the athletic programs to the Chancellor and to the Faculty Senate.
6. How Often the Committee Reports:
The Committee reports to the Faculty Senate at least once a year and other times as necessary. The Academic Integrity Subcommittee will report to the Chancellor and to the Faculty Senate each spring.
7. Power of the Committee to Act Without Faculty Senate Approval:
The Committee makes recommendations concerning the implementation and administration of policies and procedures regarding academic oversight to the Chancellor. The Committee makes recommendations concerning academic policies and procedures that impact the academic quality of the athletic program to the Faculty Senate.
8. Standard Meeting Time:
The committee does not have a standard meeting time.

The UNC Policy Manual: 700.1.1

Adopted 02/10/84
Amended 04/12/00
Amended 04/11/03
Amended 07/01/07

MINIMUM REQUIREMENTS FOR UNDERGRADUATE ADMISSION

I. MINIMUM COURSE REQUIREMENTS

In addition to the requirement that students should hold a high school diploma or its equivalent, the University of North Carolina Board of Governors has, since 1988, established minimum course requirements for undergraduate admission.^{1[1]} The requirements in effect in 2001-02 were first implemented in the fall of 1990, and will continue until the fall semester of 2004, when a second language requirement will be added. Effective in the fall of 2006, a fourth unit of mathematics will be required for admission. These requirements are summarized below. They are based on actions taken by the Board on April 14, 2000, in response to the report *Background on the Increase in UNC Board of Governors' Minimum Course Requirements for Undergraduate Admission*, which is available on the world wide web at: www.ga.unc.edu/UNCGA/assessment/MCR_BACKINFO.pdf.

Effective until Fall 2004

Four course units^{2[2]} in **English** emphasizing grammar, composition, and literature, and

Three course units of **mathematics**, in any of the following combinations:

- algebra I and II, and geometry,
- algebra I and II, and one unit beyond algebra II, or
- integrated math I, II, and III.

It is recommended that prospective students take a mathematics course unit in the twelfth grade.

Three course units in **science**, including

- at least one unit in a life or **biological science** (for example, biology),
- at least one unit in **physical science** (for example, physical science, chemistry, physics), and
- at least one **laboratory course**.

Two course units in **social studies**, including one unit in **U.S. history**, but an applicant who does not have the unit in U.S. history may be admitted on the condition that at least three semester hours in that subject will be passed by the end of the sophomore year.

^{1[1]} The standard course of study required for graduation from the North Carolina School of Science and Mathematics shall meet or exceed these minimum course requirements. See G.S. 116-235.

^{2[2]} "Course units" as defined in these requirements may include those high school-level courses taken and passed by an applicant after graduating from high school, as well as those taken while enrolled as a high school student. For some transfer students and students who graduated from high school prior to 1990, special considerations have been made.

Effective in Fall 2004 and Fall 2005

Six course units in **language**, including

- four units in **English** emphasizing grammar, composition, and literature, and
- two units of a **language other than English**.

Three course units of **mathematics**, in any of the following combinations:

- algebra I and II, and geometry,
- algebra I and II, and one unit beyond algebra II, or
- integrated math I, II, and III.

It is recommended that prospective students take a mathematics course unit in the twelfth grade.

Three course units in **science**, including

- at least one unit in a life or **biological science** (for example, biology),
- at least one unit in **physical science** (for example, physical science, chemistry, physics), and
- at least one **laboratory course**.

Two course units in **social studies**, including one unit in **U.S. history**, but an applicant who does not have the unit in U.S. history may be admitted on the condition that at least three semester hours in that subject will be passed by the end of the sophomore year.

Effective in Fall 2006

Six course units in **language**, including

- four units in **English** emphasizing grammar, composition, and literature, and
- two units of a **language other than English**.

Four course units of **mathematics**, in any of the following combinations:

- algebra I and II, and geometry,
- algebra I and II, and one unit beyond algebra II, or
- integrated math I, II, and III, and one unit beyond integrated math III.

(The fourth unit of math affects applicants to all institutions except the North Carolina School of the Arts.) It is recommended that prospective students take a mathematics course unit in the twelfth grade.

Three course units in **science**, including

- at least one unit in a life or **biological science** (for example, biology),
- at least one unit in **physical science** (for example, physical science, chemistry, physics), and
- at least one **laboratory course**.

Two course units in **social studies**, including one unit in **U.S. history**, but an applicant who does not have the unit in U.S. history may be admitted on the condition that at least three semester hours in that subject will be passed by the end of the sophomore year.

Articulation with Graduation Requirements in the North Carolina Public High Schools

Following the board's change in minimum course requirements, the North Carolina State Board of Education revised the requirements for high school graduation by offering four courses of study: (1) career; (2) college tech prep; (3) college prep; and (4) occupational. These requirements are summarized below. Option 3 tracks the UNC minimum course requirements closely.

NC COURSE OF STUDY GRADUATION REQUIREMENTS*

Content Area	CAREER Course of Study Requirements	COLLEGE TECH PREP Course of Study Requirements	COLLEGE PREP Course of Study (UNC 4-yr. College) Requirements	OCCUPATIONAL Course of Study
English I, II, III, IV	4 credits I, II, III, IV	4 credits I, II, III, IV	4 credits I, II, III, IV	This course of study shall be made available for certain students with disabilities who have an IEP, beginning with first time ninth graders in 2000-01. Curriculum content requirements will be presented to the State Board of Education by May 2000.
Mathematics	3 credits Including Algebra I	3 credits Alg. I, Geometry, Alg. II or Alg. I, Technical Math I & II or Integrated Mathematics I, II & III	3 credits Alg. I, Alg. II, Geometry (or higher level math course for which Alg. II is prerequisite) (Recommended one course unit in 12 th grade) or Integrated Mathematics I, II & III	
Science	3 credits a physical science course Biology earth/env. science	3 credits a physical science course related to career pathway (CP) Biology earth/env. Science	3 credits a physical science course a life or biological course (Biology) Earth/env. science	
Social Studies	3 credits	3 credits	3 credits	

* Effective for ninth graders entering for the first time in 2000-01.

Note: Courses that meet the following requirements may be taken prior to grade 9: Algebra I & II, Geometry, Advanced Math, Technical Math I & II, English I, Biology, ELPS, US History, World Studies. However, the student must still complete the required number of courses for that subject area in grades in 9-12.

	Govt./Econ. (ELPS) US History World Studies	Govt./Econ. (ELPS) US History World Studies	Govt./Econ. (ELPS) US History World Studies (UNC admission policy requires 2 courses to meet minimum admission requirements – US History and 1 elective)	
Second Language	Not Required	Not Required	Not Required Recommended at least two (2) course units in one second language with one course unit taken in 12 th grade	

Computer Skills	A specific course is not required but students must demonstrate proficiency through state testing (starting with the graduating class of 2001)	A specific course is not required but students must demonstrate proficiency through state testing (starting with the graduating class of 2001)	A specific course is not required but students must demonstrate proficiency through state testing (starting with the graduating class of 2001)	
Health & Physical Ed.	1 credit Health/Phys. Ed.	1 credit Health/Phys. Ed.	1 credit Health/Phys. Ed.	
Career/Technical	4 units of credits Select courses appropriate for career pathway to include a second level (advanced) course	4 units of credits Select courses appropriate for career pathway to include a second level (advanced) course	Not required	
Arts Ed. (Visual Arts, Dance, Music, Theatre Arts)	Not required (local decision)	Not required (local decision)	Not required (local decision)	

Electives or other requirements	2 Elective Credits and other credits designated by the LEA Proficiency on exit exam	2 Elective Credits and other credits designated by the LEA Proficiency on exit exam	6 Elective Credits and other credits designated by the LEA Proficiency on exit exam	
Total	Depends on local requirements	Depends on local requirements	Depends on local requirements	

Notification of Stakeholders and Educational Policymakers

The President is directed to develop plans and further recommendations to inform key stakeholders and educational policymakers of the changes in requirements.

II. OTHER ADMISSIONS REQUIREMENTS

All applicants for admission to any campus, except those exempted by current campus policies, must submit a standardized test score. The SAT I is preferred, but students may also submit the ACT.

Students applying for admission for fall 2006 or after, for whom standardized test scores are required, must submit either the new SAT I (which includes the writing component) or the ACT with the writing component. The ACT without the writing component will not be acceptable as a standardized test for admission after the spring semester of 2006.

The President may establish regulations to implement this policy.

EAST CAROLINA UNIVERSITY
Educational Foundation, Inc.

Financial Report
Year Ended June 30, 2007

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The firm of McGladrey & Pullen, LLP, Certified Public Accountants, has recently completed its audit of the financial statements of the East Carolina University Educational Foundation for the Fiscal Year Ended June 30, 2007. The accompanying is a copy of the annual financial report for your review. As with past fiscal years, I am pleased to advise that the Educational Foundation has again received an unqualified opinion from McGladrey & Pullen in conjunction with its audit.

To assist in your review of this financial report, let me offer a brief overview of the Educational Foundation's operational performance during the fiscal year. Overall, the fiscal year was another good year for the Foundation's fund-raising efforts on behalf of East Carolina University Athletics.

The following highlight significant financial transactions of the Educational Foundation for the fiscal year, as reported in the accompanying financial report:

- Although contributions and gifts in kind totaling \$7,987,141 represents a decrease of \$1,873,825 compared with that reported for the previous fiscal year, it should be noted that the previous fiscal year included Circle of Excellence contributions that totaled \$4.1 million. Annual fund contributions increased by 18.69%.
- During the fiscal year, the Educational Foundation received approximately \$1 million in endowment pledges. The endowment activity resulted in a 27.31% increase in permanently restricted net assets this fiscal year.
- Income on investments increased by 59.85% from the prior year with a total return of \$1,351,767 for the year.
- A record \$3.45 million was transferred by the Educational Foundation to East Carolina University Athletics during the fiscal year in support of student-athlete scholarships. Also, \$1,883,920 in temporarily restricted funds was transferred to the athletics program by the Educational Foundation for athletic facility enhancements.
- General and administrative expenditures of \$1,776,098 accounted for 22.14% of total contributions and gifts in kind reported, while fund-raising expenditures accounted for 3.90%. As a result, total supporting expenses amounted to 26.04% of total contributions and gifts in kind reported, as compared to 17.01% for the previous fiscal year. The Educational Foundation experienced increases in salary expense, supplies expense, and current services expense.
- Bad debt losses of \$45,391 for the fiscal year were down \$253,767 from that incurred during the previous fiscal year.
- Total net assets of \$19,496,827 at June 30, 2007, increased by \$1,932,222 over that reported at June 30, 2006. Of total net assets, \$2,989,069 was unrestricted at June 30, 2007.

In summary, the Fiscal Year Ended June 30, 2007, was another good year for the Educational Foundation in its fund-raising efforts on behalf of East Carolina University Athletics, as evidenced by record annual fund contributions and record student-athlete scholarship funding to the University's athletics program.

Sincerely,

Mark T. Wharton
Executive Director



McGladrey & Pullen

Certified Public Accountants

INDEPENDENT AUDITOR'S REPORT

To the Board of Directors
East Carolina University Educational Foundation, Inc.
Greenville, North Carolina

We have audited the accompanying statement of financial position of East Carolina University Educational Foundation, Inc. ("Foundation") as of June 30, 2007, and the related statements of activities and cash flows for the year then ended. These financial statements are the responsibility of the Foundation's management. Our responsibility is to express an opinion on these financial statements based on our audit. The prior year's summarized comparative information has been derived from the Foundation's 2006 financial statements and, in our report dated October 11, 2006, we expressed an unqualified opinion on those financial statements.

We conducted our audit in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audit provides a reasonable basis for our opinion.

In our opinion, the 2007 financial statements referred to above present fairly, in all material respects, the financial position of East Carolina University Educational Foundation, Inc. as of June 30, 2007, and the changes in its net assets and its cash flows for the year then ended in conformity with accounting principles generally accepted in the United States of America.

McGladrey & Pullen, LLP

New Bern, North Carolina
December 6, 2007

EAST CAROLINA UNIVERSITY EDUCATIONAL FOUNDATION, INC.

Statement of Financial Position

June 30, 2007

(With Summarized Financial Information for June 30, 2006)

Assets	2007	2006
Cash and cash equivalents (Note 10)	\$ 112,739	\$ 94,206
Receivables:		
Contributions receivable, net of allowance for uncollectibles of \$779,079 for 2007 and \$1,041,043 for 2006 (Note 2)	5,163,937	5,448,015
East Carolina University	7,594,560	6,515,698
East Carolina University Foundation, Inc.	1,281	1,441
Beneficial interest in charitable remainder trust	297,731	260,736
Other	35	15
Total receivables	13,057,544	12,225,905
Prepaid expense	1,565	6,542
Investments (Note 3)	7,153,212	6,405,695
Life insurance policy - cash surrender value	15,571	15,823
Real estate held for investment (Note 4)	566,600	428,600
Equipment, net of accumulated depreciation of \$124,858 for 2007 and \$96,378 for 2006	17,546	46,026
Total assets	\$ 20,924,777	\$ 19,222,797
Liabilities and Net Assets		
Accounts payable	\$ 112,385	\$ 50,413
Accrued expenses	100,071	83,977
Interest payable	11,812	15,511
Notes payable (Note 7)	1,203,682	1,508,291
Total liabilities	1,427,950	1,658,192
Commitments (Notes 5 & 6)		
Net assets:		
Unrestricted (Note 11)	2,989,069	3,083,714
Temporarily restricted (Note 8)	11,712,089	10,713,895
Permanently restricted (Note 8)	4,795,669	3,766,996
Total net assets	19,496,827	17,564,605
Total liabilities and net assets	\$ 20,924,777	\$ 19,222,797

See accompanying notes to financial statements.

EAST CAROLINA UNIVERSITY EDUCATIONAL FOUNDATION, INC.
Statement of Activities
Year Ended June 30, 2007
(With Summarized Financial Information for Year Ended June 30, 2006)

	Unrestricted	Temporarily Restricted	Permanently Restricted	Totals	
				2007	2006
Revenue, gains and other support:					
Contributions	\$ 5,578,421	\$ 769,586	\$ 1,036,581	\$ 7,384,588	\$ 9,453,695
Gifts in kind	602,553	-	-	602,553	407,271
Contributed services and facilities (Note 9)	35,280	-	-	35,280	35,280
Return on investments:					
Interest and dividends	84,928	369,301	-	454,229	393,656
Net realized and unrealized gain on investments	89,294	808,244	-	897,538	452,002
Other income	460,367	2,030	-	462,397	457,789
Loss on sale or transfer of property	-	(270)	-	(270)	-
Change in value of split interest agreements	-	-	36,995	36,995	2,288
Net assets released from restrictions (Note 8)	950,209	(950,209)	-	-	-
Total revenue, gains and other support	7,801,052	998,682	1,073,576	9,873,310	11,201,981
Expenses and losses:					
Program services:					
Program development	473,106	-	-	473,106	414,937
Scholarships	3,450,000	-	-	3,450,000	3,400,000
Facility enhancement	1,883,920	-	-	1,883,920	4,590,656
General and administrative	1,776,098	-	-	1,776,098	1,289,683
Fund-raising	312,573	-	-	312,573	393,252
Total expenses	7,895,697	-	-	7,895,697	10,088,528
Revaluation of property	-	-	-	-	29,400
Bad debt losses	-	488	44,903	45,391	299,158
Total expenses and losses	7,895,697	488	44,903	7,941,088	10,417,086
Change in net assets	(94,645)	998,194	1,028,673	1,932,222	784,895
Net assets, beginning of year	3,083,714	10,713,895	3,766,996	17,564,605	16,779,710
Net assets, end of year	\$ 2,989,069	\$ 11,712,089	\$ 4,795,669	\$ 19,496,827	\$ 17,564,605

See accompanying notes to financial statements.

EAST CAROLINA UNIVERSITY EDUCATIONAL FOUNDATION, INC.

Statement of Cash Flows

Year Ended June 30, 2007

(With Summarized Financial Information for Year Ended June 30, 2006)

	2007	2006
Cash flows from operating activities:		
Change in net assets	\$ 1,932,222	\$ 784,895
Adjustments to reconcile change in net assets to net cash used in operating activities:		
Depreciation	28,480	28,481
Loss on sale or transfer of real estate	270	-
Decrease in life insurance policy - cash surrender value	252	41
Revaluation of real estate	-	29,400
Donated split interest agreement	-	(202,390)
Changes in value of split-interest agreement	(36,995)	(2,288)
Net realized and unrealized gains on investments	(897,538)	(452,002)
Contributions restricted for investment in endowments	(1,036,581)	(229,546)
Contributed real estate	(173,000)	-
Increase (decrease) in cash and cash equivalents due to change in:		
Receivables	(794,644)	(1,571,513)
Prepaid expenses	4,977	(4,553)
Accounts payable	61,972	(411,810)
Accrued expenses	16,094	17,431
Interest payable	(3,699)	2,288
Net cash used in operating activities	<u>(898,190)</u>	<u>(2,011,566)</u>
Cash flows from investing activities:		
Proceeds from sale of investments	5,612,474	4,219,031
Purchase of investments	(5,462,453)	(3,979,442)
Proceeds from sale of real estate	34,730	-
Net cash provided by investing activities	<u>184,751</u>	<u>239,589</u>
Cash flows from financing activities:		
Issuance of long-term debt	-	1,019,682
Contributions restricted for endowments	1,036,581	229,546
Principal payments on long-term debt	(304,609)	(262,500)
Net cash provided by financing activities	<u>731,972</u>	<u>986,728</u>
Net increase (decrease) in cash and cash equivalents	18,533	(785,249)
Cash and cash equivalents, beginning of year	94,206	879,455
Cash and cash equivalents, end of year	<u>\$ 112,739</u>	<u>\$ 94,206</u>
SUPPLEMENTAL DISCLOSURE OF CASH FLOW INFORMATION		
Cash payments for interest	<u>\$ 87,397</u>	<u>\$ 74,024</u>

See accompanying notes to financial statements.

EAST CAROLINA UNIVERSITY EDUCATIONAL FOUNDATION, INC.

NOTES TO FINANCIAL STATEMENTS

(1) Nature of Activities and Summary of Significant Accounting Policies

The East Carolina University Educational Foundation, Inc. ("Foundation") is a nonprofit corporation organized under the laws of the State of North Carolina. The primary purpose of the Foundation is to provide assistance to worthy young men and women seeking an education at East Carolina University, by raising private support from alumni and friends of the University to help fund student-athletes scholarships; compensation assistance for coaches and key athletics department personnel; construction of athletics related facilities; purchase of athletic equipment; and other support as may be needed by the University's athletics program.

Basis of Accounting

The financial statements of the Foundation have been prepared on the accrual basis of accounting.

Summarized Prior Year Financial Information

The financial statements include certain prior year summarized information in total but not by net asset class. Such information does not include sufficient detail to constitute a presentation in conformity with accounting principles generally accepted in the United States of America. Accordingly, such information should be read in conjunction with the Foundation's financial statements for the year ended June 30, 2006, from which the summarized information is derived.

Basis of Presentation

Net assets and revenues, expenses, gains and losses are classified based on the existence or absence of donor-imposed restrictions. Accordingly, net assets of the Foundation and changes therein are classified and reported as follows:

- Unrestricted net assets – net assets that are not subject to donor-imposed stipulations.
- Temporarily restricted net assets – net assets subject to donor-imposed stipulations that may or will be met either by actions of the Foundation and/or the passage of time.
- Permanently restricted net assets – net assets subject to donor-imposed stipulations that they be maintained permanently by the Foundation. Generally, the donors of these assets permit the Foundation to use all of, or part of, the income earned on related investments for general or specific purposes.

Revenues are reported as increases in unrestricted net assets unless use of the related assets is limited by donor-imposed restrictions. Expenses are reported as decreases in unrestricted net assets. Gains and losses on investments and other assets or liabilities are reported as increases or decreases in unrestricted net assets unless their use is restricted by explicit donor stipulation or by law. Expirations of temporary restrictions on net assets (i.e., the donor-stipulated purpose has been fulfilled and/or the stipulated time period has elapsed) are reported as reclassifications between the applicable classes of net assets.

EAST CAROLINA UNIVERSITY EDUCATIONAL FOUNDATION, INC.

NOTES TO FINANCIAL STATEMENTS

Basis of Presentation (continued)

Contributions, including unconditional promises to give, are recognized as revenues in the period received or as expenses in the period made. Conditional promises to give are not recognized until they become unconditional, that is when the conditions on which they depend are substantially met. Contributions of assets other than cash are recorded at their estimated fair value. Contributions to be collected or paid after one year are discounted at an appropriate discount rate commensurate with the risks involved. Amortization of discounts is recorded as additional contribution revenue in accordance with donor-imposed restrictions, if any, on the contributions. An allowance for uncollectible pledges receivable is provided based upon management's judgment including such factors as prior collection history, type of contribution and nature of fund raising activity.

Income and realized and unrealized net gains on investments of endowment and similar funds are reported as follows:

- As increases in permanently restricted net assets if the terms of the gift or the Foundation's interpretation of relevant state law require that they be added to the principal of a permanent endowment fund;
- As increases in temporarily restricted net assets if the terms of the gift impose restrictions on the use of the income; and
- As increases in unrestricted net assets in all other cases.

Any losses on the investments of a donor-restricted endowment fund reduce temporarily restricted net assets to the extent that donor-imposed temporary restrictions on net appreciation of the fund have not been met before a loss occurs. Any remaining loss reduces unrestricted net assets. If losses reduce the assets of a donor-restricted endowment fund below the level required by the donor stipulations or law, gains that restore the fair value of the assets of the endowment fund to the required level are classified as increases in unrestricted net assets.

Cash and Cash Equivalents

Cash and cash equivalents include interest-bearing money market accounts and short-term investments with an original maturity of less than three months. Amounts excluded are cash and cash equivalents that are restricted for endowments. These cash and cash equivalents are classified with long-term investments.

Investments

Investments are reported at fair value with gains and losses included in the statement of activities. All temporarily and permanently restricted funds are combined with unrestricted funds into one investment pool. Annually, the interest, dividends, realized and unrealized gains/losses and investment fees are allocated to the funds based on the fund's percentage of ownership interest in the pool of investments.

EAST CAROLINA UNIVERSITY EDUCATIONAL FOUNDATION, INC.

NOTES TO FINANCIAL STATEMENTS

Beneficial Interest in Charitable Remainder Trusts

The Foundation has a beneficial interest in three charitable remainder trusts. A receivable has been recognized for the Foundation's beneficial interest in the remainder trust at the present value of the estimated future distributions expected to be received. The Foundation is not the named trustee. Adjustments to reflect reevaluations of the present value of the estimated future payments and changes in actuarial assumptions are recognized in the statement of activities as a change in value of the split-interest agreement.

Real Estate Held for Investment

Real estate is recorded at fair value at the date of donation. Real estate is assessed for other than temporary impairment annually and, if necessary, adjusted for the impairment.

Equipment

Equipment is stated at cost at date of acquisition or fair value at date of donation in the case of gifts. The Foundation capitalizes assets that have a value or cost in excess of \$5,000 at the date of acquisition and an expected useful life of one or more years. Depreciation is computed using the straight-line method over the estimated useful lives of the assets.

Income Taxes

The Foundation is exempt from payment of income taxes under the provision of Section 501(c)(3) of the Internal Revenue Code, except to the extent of taxes on any unrelated business income. Since there was no unrelated business income during 2007, no provision for income taxes has been made.

Use of Estimates

The preparation of financial statements requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

Reclassifications

Certain amounts as of June 30, 2006 have been reclassified, with no effect on revenue and gains in excess of expenses and losses, net assets or cash flows from operations, to be consistent with the classifications and presentation adopted for the year ended June 30, 2007.

EAST CAROLINA UNIVERSITY EDUCATIONAL FOUNDATION, INC.

NOTES TO FINANCIAL STATEMENTS

(2) Contributions Receivable

Contributions receivable at June 30, 2007 is summarized as follows:

Unconditional promises expected to be collected in:	
Less than one year	\$ 1,658,803
One to five years	4,884,887
	<u>6,543,690</u>
Less allowance for unamortized discount	600,674
Less allowance for uncollectible pledges	779,079
	<u>\$ 5,163,937</u>

(3) Investments

The aggregate fair values of investments at June 30, 2007 by type of security are as follows:

U.S. Government agency bonds	\$ 525,214
Mutual funds	1,054,266
Corporate bonds	346,335
Foreign bonds	26,179
Preferred stock	80,072
Common stock	4,301,424
Foreign stock	323,113
Money market mutual funds	496,609
	<u>\$ 7,153,212</u>

The Foundation invests in various types of investment securities. Investment securities are exposed to various risks, such as interest rate, market, and credit risk. Due to the level of risk associated with certain investment securities, it is at least reasonably possible that changes in the values of investment securities will occur in the near term and that such changes could materially affect the amounts reported in the statement of financial position.

Investment management fees totaled \$42,822 for the year ended June 30, 2007.

(4) Real Estate Held for Investment

The real estate, recorded at appraised values on the dates received, consists of five residential lots in the Brook Valley subdivision located in Greenville, North Carolina valued at \$62,000, two lots in the Rolling Pines subdivision valued at \$10,600, 164 acres in Carteret County valued at \$164,000, one lot in the River Hills subdivision valued at \$18,000, one lot on 14th Street valued at \$174,000, and three lots in Trotter's Ridge subdivision valued at \$138,000.

EAST CAROLINA UNIVERSITY EDUCATIONAL FOUNDATION, INC.

NOTES TO FINANCIAL STATEMENTS

(5) Pension Plans

The employees of the Foundation are paid by East Carolina University (ECU) and they are treated as employees of ECU for payroll and benefit purposes. As a result, the retirement and post retirement benefits provided by the Foundation are considered to be provided under a multiemployer plan. The Foundation reimburses ECU for all payroll and benefit costs related to the Foundation employees.

Retirement Plan

Each permanent full-time employee, as a condition of employment, is a member of the Teachers' and State Employees' Retirement System of North Carolina (System), a multiple-employer, cost-sharing, defined benefit pension plan which is administered by the North Carolina State Treasurer. Additional detailed information about the System is disclosed in the State of North Carolina's *Comprehensive Annual Financial Report*. Employees contributed 6% of gross wages and the Foundation contributed 2.66% of matching pension benefits for the year ended June 30, 2007. The Foundation has no pension plan obligations beyond the matching already paid into the System. For the year ended June 30, 2007, the Foundation had a total payroll of \$626,630, of which \$468,013 was covered under the Teachers' and State Employees' Retirement System. The Foundation contributed \$12,449 as matching pension costs during the year. Employee contributions totaled \$28,081.

(6) Other Postemployment Benefits

Health Care for Long-Term Disability Beneficiaries and Retirees

The Foundation participates in state administered programs which provide health care benefits to eligible former employees. Additional detailed information about these programs is disclosed in the State of North Carolina's *Comprehensive Annual Financial Report*. The Foundation contributed 3.8% of covered payroll for a total of \$17,784 to this benefit during the year ended June 30, 2007. The Foundation assumes no liability for health care for long-term disability benefits under the plan other than its contribution.

Long Term Disability

The Foundation participates in the Disability Income Plan of North Carolina (the Plan). The Plan provides disability income to eligible participants. Eligible participants are employees that are members of the Teachers' and State Employees' Retirement System. Additional detailed information about the Plan is disclosed in the State of North Carolina's *Comprehensive Annual Financial Report*. The Foundation contributed .52% of covered payroll under the Teachers' and State Employees' Retirement System. For the year ended June 30, 2007 the Foundation's total contribution to the plan was \$2,434. The Foundation assumes no liability for long-term disability benefits under the Plan other than its contribution.

EAST CAROLINA UNIVERSITY EDUCATIONAL FOUNDATION, INC.

NOTES TO FINANCIAL STATEMENTS

Death Benefit

The Foundation participates in the Death Benefit Plan of North Carolina (the Plan). The Plan provides a death benefit to survivors of eligible participants. Eligible participants are employees that are members of the Teachers' and State Employees' Retirement System. Additional detailed information about the Plan is disclosed in the State of North Carolina's *Comprehensive Annual Financial Report*. The Foundation did not contribute to the Plan for the year ended June 30, 2007. The Foundation assumes no liability for death benefits under the Plan other than what has been contributed to the Plan.

(7) Long-Term Debt

Long-term debt at June 30, 2007 consists of an unsecured note from RBC Centura Bank and an unsecured note from Wachovia Bank:

An RBC Centura Bank note for a football scoreboard was paid in full during the fiscal year. Interest began accruing on April 24, 2003 at a fixed rate of 3.1%. A principal payment of \$162,500 and an interest payment were being made annually. The first annual payment was made on June 24, 2003. A final payment was made on June 24, 2007 for the remaining principal and interest balances.

The Foundation has an RBC Centura Bank note for a baseball scoreboard with a balance of \$184,000 at June 30, 2007. The rate of interest is 30-day LIBOR plus 1%. A principal payment of \$100,000 and an interest payment are being made annually for four years beginning on July 24, 2004, with a final payment due on July 24, 2011 for the remaining principal and interest balance.

Maturities of principal on the above notes for each of the next 5 years are as follows: \$100,000 due in 2007-08; and \$84,000 due on July 24, 2011.

The Foundation has a note with Wachovia Bank with a balance of \$1,019,682 at June 30, 2007. The rate of interest is 1-month LIBOR plus 1%. Interest payments are due annually beginning on June 30, 2006. All principal and accrued interest shall be due and payable on June 30, 2010. Principal payments are due and payable in order to meet the following maximum outstanding principal balance:

June 30, 2009 Outstanding Principal Balance shall be \$700,000 or less.

Total interest expense for the year ended June 30, 2007 was \$83,663.

(8) Restricted Net Assets

Temporarily restricted net assets are available for the following purposes at June 30, 2007:

Scholarships	\$ 3,347,786
Support of various programs	311,214
Facility enhancement	8,053,089
	<u>\$ 11,712,089</u>

EAST CAROLINA UNIVERSITY EDUCATIONAL FOUNDATION, INC.

NOTES TO FINANCIAL STATEMENTS

Permanently restricted net assets at June 30, 2007 are restricted to investment in perpetuity, the income from which is expendable to support:

Scholarships \$ 4,795,669

Net assets totaling \$950,209 were released from donor restrictions in 2007 by incurring expenses satisfying the restricted purposes or by the passage of time.

(9) Related Party Transactions

The University provides certain support such as facilities for the benefit of the Foundation. These contributed facilities have been recognized in the accompanying statements of activities as contributions and expenses at their estimated value. The amount of these contributed facilities for the year was \$35,280.

(10) Concentration of Credit Risk

The Foundation has deposits with high credit quality financial institutions that, at times, exceed federally insured limits. Substantially all investments in debt and equity securities are acquired through and held by one financial institution.

(11) Unrestricted Net Assets

The Board has designated \$215,000 of the unrestricted net assets for quasi-endowments.

(12) Functional Expenses

The costs of providing the various programs and activities have been summarized on a functional basis in the statement of activities. The following costs were incurred:

	Contributions to ECU	Fund Raising	General and Administrative	Total
Personnel Services	\$ 7,723	\$ 4,268	\$ -	\$ 11,991
Supplies and Materials	48,802	25,946	210,739	285,487
Current Services	63,197	273,135	1,408,403	1,744,735
Fixed Charges	335,663	9,224	138,763	483,650
Aids and Grants	17,721	-	-	17,721
Facility Enhancement	1,883,920	-	-	1,883,920
Scholarships	3,450,000	-	-	3,450,000
Other Expenses	-	-	18,193	18,193
	<u>\$ 5,807,026</u>	<u>\$ 312,573</u>	<u>\$ 1,776,098</u>	<u>\$ 7,895,697</u>

EAST CAROLINA UNIVERSITY EDUCATIONAL FOUNDATION, INC.

NOTES TO FINANCIAL STATEMENTS

Expenses of the Foundation reported in the Statement of Activities are categorized as relating to program services, general and administrative, and fund-raising. Under program services, expenses further categorized as expenses of the Foundation relating to program development, scholarships and facility enhancements, relate to expenditures made by the Foundation or on behalf of the University's athletics program. General and administrative expenses relate to those expenditures incurred by the Foundation in its day-to-day operation. Lastly, expenses reported as fund-raising related to expenses incurred by the Foundation or by its twenty-nine community chapter organizations in putting on various fund-raising and fund-raising events. For the fiscal year, \$135,405 of the \$312,573 in fund-raising expenditures reported was incurred by the twenty-nine community chapters.

Football Academic Recovery Plan Completed for 2006-2007 Academic Year

Elements			Steps		
Issue(s)	Measurable Goals	Steps to Achieve Goals	Individuals Responsible for Implementation	Specific Timetable for Completing the Work	Met Goal, Did Not Meet Goal, If Not, What Reason?
Not enough academic support staff	<p>Hire 1 additional football advisor – position approved.</p> <p>Hire an additional learning specialist for football – proposed.</p>	<p>2006-07: Hire approved position during the 2006-07 academic year.</p> <p>2006-07: Submit additional staff request and rationale to student development study committee.</p>	Assistant AD for Student Development, Football Academic Coordinator, Learning Specialist/Tutor Coordinator	Beginning in 2007 and reviewed annually thereafter	<p>Hired for football:</p> <ul style="list-style-type: none"> - 1 full-time academic coordinator - 1 ¾-time academic coordinator - 1 ½-time remediation specialist
Class Attendance	All student athletes are required to attend all classes except for university approved events. Penalties are assessed through practice and playing time as well as financial aid.	<p>2005-06: Class Attendance Policy implemented by AD</p> <p>Attendance monitored through faculty progress reports and class checks by coaches.</p> <p>Student-athletes required to complete weekly attendance verification forms.</p>	Athletics Director, Coaching Staff, and Student Development Staff	Continually throughout the semester. Semester reviews conducted with AD, Coaching Staff, and Student Development Staff.	Attendance reviewed twice a semester through progress reports from faculty as well as through random class checks by coaching staff. Student-athletes complete weekly attendance verification forms. Students in violation of the policy were held from competition. Attendance has improved since implementation of policy.

Elements			Steps		
Issue(s)	Measurable Goals	Steps to Achieve Goals	Individuals Responsible for Implementation	Specific Timetable for Completing the Work	Met Goal, Did Not Meet Goal, If Not, What Reason?
Lack of computer resources available for student athletes in the athletic complex and for travel	Order 25 laptops that can be used during study hall Restrict the computer lab during study hall times. This will allow use by study hall students only. Other campus labs can be utilized by student-athletes not required to attend study hall.	2005-2006: Gain approval to include in 06-07 and 07-08 budgets.	Assistant AD for Student Development, Director of Business Office, Executive Senior Associate AD	2006-07: Order 10 laptops for study hall. 2007-08: Order 15 additional laptops.	2006-07: Purchased 10 laptops for study hall. 2007-08: Purchased 24 additional laptops.
Lack of space for academic support services.	Short-term: convert space within the Ward Sports Medicine Building. Long-term: build new facility.	2006-07: Submit additional space request and rationale to student development study committee.	Student Development Study Committee, AD, Executive Senior Associate AD, Assistant AD/Administrative Affairs, Senior Associate AD for External Operations	Beginning in 2007 and reviewed annually thereafter.	Engaged architects for feasibility study to develop additional academic enhancement space.
Coaching Changes – three different staffs in a five year period.	Create a stable coaching atmosphere with a staff that emphasizes the importance of education. Increase retention of students.	A new football coaching staff was hired and in place Jan. 1, 2005.	Athletics Director, Board of Directors, Chancellor, New Coaching Staff	Annual reviews will be conducted by compliance office and student development staff in regards to retention. Football student-athletes will be surveyed by the student development staff to determine reasons for leaving ECU prior to their departure.	Coaching staff has remained constant. New procedures put in place for student-athletes pursuing professional careers to encourage completion of their degrees.

Men's Basketball Academic Recovery Plan Completed for 2006-2007 Academic Year

Elements			Steps		
Issue(s)	Measurable Goals	Steps to Achieve Goals	Individuals Responsible for Implementation	Specific Timetable for Completing the Work	Met Goal, Did Not Meet Goal, If Not, What Reason?
Admission of students with too many academic deficiencies despite being NCAA qualified.	Involve more personnel in the admissions process.	<p>Have additional staff review academic records of recruits to identify red flags.</p> <p>Increase academic staff's involvement in recruiting process.</p>	Eligibility Specialist, Director of Admissions, Assistant AD for Student Development, Basketball Academic Coordinator, Learning Specialist/Tutor Coordinator, Faculty Athletics Representative	Beginning in 2005 and reviewed annually thereafter.	Increased academic staff's involvement in recruiting. Detailed review of student's academic history conducted by academic support staff.
Class Attendance	All student athletes are required to attend all classes except for university approved events. Penalties are assessed through practice and playing time as well as financial aid.	<p>2005-06: Class Attendance Policy implemented by AD</p> <p>Attendance monitored through faculty progress reports and class checks by coaches.</p> <p>Student-athletes required to complete weekly attendance verification forms.</p>	Athletics Director, Coaching Staff, and Student Development Staff	Continually throughout the semester. Semester reviews conducted with AD, Coaching Staff, and Student Development Staff.	Attendance reviewed twice a semester through progress reports from faculty as well as through random class checks by coaching staff. Student-athletes complete weekly attendance verification forms. Students in violation of the policy were held from competition. Attendance has improved since implementation of policy.

Elements			Steps		
Issue(s)	Measurable Goals	Steps to Achieve Goals	Individuals Responsible for Implementation	Specific Timetable for Completing the Work	Met Goal, Did Not Meet Goal, If Not, What Reason?
Missed Class Due to Travel	Increase charter flights instead of flying commercial to reduce the amount of missed class time.	Schedule charters for trips that would require student-athletes to miss considerable class by flying commercial.	Coaching Staff	Beginning in the 2006-07 season	Charter flights used for all weekday games to reduce missed class time.
Not enough academic support staff	Hire a graduate assistant for men's basketball to assist the basketball advisor – proposed.	2006-07: Submit additional staff request and rationale to student development study committee.	Assistant AD for Student Development, Basketball Academic Coordinator	Beginning in 2007 and reviewed annually thereafter	Hired a 20 hr/week graduate assistant for the 2007-08 academic year.
No academic support sent on extended trips due insufficient staff.	Hire a graduate assistant for men's basketball to assist the basketball advisor – proposed.	2006-07: Submit additional staff request and rationale to student development study committee.	Assistant AD for Student Development, Basketball Academic Coordinator, Basketball Coaching Staff	Beginning in 2007 and reviewed annually thereafter	No extended trips fall semester 07 to warrant academic staff travel. Academic staff's inclusion in travel spring 08 to be determined based on travel schedule and timing within the semester.

Elements			Steps		
Issue(s)	Measurable Goals	Steps to Achieve Goals	Individuals Responsible for Implementation	Specific Timetable for Completing the Work	Met Goal, Did Not Meet Goal, If Not, What Reason?
Lack of computer resources available for student athletes in the athletic complex and for travel	Order 25 laptops that can be used during study hall. Restrict the computer lab during study hall times. This will allow use by study hall students only. Other campus labs can be utilized by student-athletes not required to attend study hall.	2005-2006: Gain approval to include in 06-07 and 07-08 budgets.	Assistant AD for Student Development, Director of Business Office, Executive Senior Associate AD	2006-07: Order 10 laptops for study hall. 2007-08: Order 15 additional laptops.	2006-07: Purchased 10 laptops for study hall. 2007-08: Purchased 24 additional laptops.
Lack of space for academic support services.	Short-term: convert space within the Ward Sports Medicine Building. Long-term: build new facility.	2006-07: Submit additional space request and rationale to student development study committee.	Student Development Study Committee, Athletics Director, Executive Senior Associate AD, Assistant AD/Administrative Affairs, Senior Associate AD for External Operations	Beginning in 2007 and reviewed annually thereafter.	Engaged architects for feasibility study to develop additional academic enhancement space.
Coaching Changes	Hire a coaching staff that emphasizes the importance of education. Increase retention of students.	A new basketball coaching staff was hired and in place April 1, 2005.	Athletics Director, Board of Directors, Chancellor, New Coaching Staff	Annual reviews will be conducted in regards to retention. Basketball student-athletes will be surveyed to determine reasons for leaving ECU prior to their departure.	New head coach put in place summer 07. Hired from current staff to help maintain continuity and retention.

**Men's Basketball Academic Recovery Plan
Completed for 2007-08 Academic Year
(Additional Issues Identified from APR Analysis of the 2006-07 Cohort)**

Elements			Steps		
Issue(s)	Measurable Goals	Steps to Achieve Goals	Individuals Responsible for Implementation	Specific Timetable for Completing the Work	Met Goal, Did Not Meet Goal, If Not, What Reason?
Significant number of eligibility points lost by fifth-year/exhausted eligibility student-athletes.	Establish academic expectations fifth-year/exhausted eligibility student-athletes are required to meet.	<p>Develop academic requirements for fifth-year/exhausted eligibility student-athletes such as study hall attendance, class attendance and academic meetings.</p> <p>Develop a policy making continued funding contingent upon adherence to academic requirements and academic performance.</p> <p>Review these policies each semester with fifth-year/exhausted eligibility student-athletes beginning in the last semester of their athletics eligibility.</p>	Head Coach, Basketball Academic Coordinator, Assistant AD for Student Development, Executive Senior Associate AD.	Beginning spring semester 2008 and reviewed annually thereafter.	Academic requirements and a funding policy were developed and put in place with some progress. This will continue to be a point of emphasis.

Elements			Steps		
Issue(s)	Measurable Goals	Steps to Achieve Goals	Individuals Responsible for Implementation	Specific Timetable for Completing the Work	Met Goal, Did Not Meet Goal, If Not, What Reason?
Significant number of retention points lost by fifth-year/exhausted eligibility student-athletes.	During last season of eligibility have student-athletes meet with a graduation review panel to discuss degree completion.	Spring 2008: Develop a panel that will meet with student-athletes in their final season of eligibility to discuss graduation status, graduation options and university support of graduation efforts as well as discuss any individual issues regarding retention.	Head Coach, Basketball Academic Coordinator, Assistant AD for Student Development, Faculty Athletics Representative.	Beginning spring semester 2008 and reviewed annually thereafter.	Of the 3 seniors exhausting eligibility spring 2008, one was determined to need a panel meeting based on past academic history. This senior left school at the end of his playing season to pursue a professional career before a meeting was held. To address such an issue in the future, the panel will meet with student-athletes in the fall of their final season with a follow-up at the end of their playing season in the spring.

Proposed Motion to be offered by
University Affairs Committee
Board of Trustees Meeting
November 20, 2008

Conferral of Degrees

I move that the candidates for degrees, as approved by the Faculty Senate and the Chancellor, be authorized for conferral on Saturday, December 13, 2008, at the annual fall commencement.

UPDATE FROM THE OFFICE OF THE PROVOST

November 6, 2008

As we move toward the end of the fall semester, I wanted to again send out an UPDATE that, from my perspective, covers several topics that need to be communicated with the university community. For the most part, these topics have come up in meetings I have had with different departments and/or staffs.

Program Reviews

We are currently involved in initiating a program review process for both academic degree programs and non-academic programs on our campus. Quite frankly, ECU has been somewhat remiss in not having conducted these reviews on an ongoing basis throughout the years. The mandate for such a process comes from both UNC-GA and SACS; but we also need to complete these reviews to insure accountability and continuous improvement. Those areas and degree programs that have their own professional accreditation processes have certainly been conducting such reviews; and we will make sure that these professional reviews are integrated with any other process.

Below I have listed a few specifics about these reviews that you might want to know:

- The Faculty Senate has approved the guidelines we will be using to conduct the reviews.
- Undergraduate and graduate programs will be reviewed simultaneously.
- A number of non-academic programs have already been reviewed: Honors Program; Writing Program; Center for Faculty Excellence; Program Development Process; Volunteer and Service-Learning Center, etc. Dr. Linner Griffin has coordinated these reviews as Associate VC for Academic Programs. Summaries of these reviews have been shared with the deans; and they will now be shared with the Faculty Senate officers.
- Following each review, meetings are held with the faculty or staff in charge of the program; and recommendations and strategies are discussed.

Office of Institutional Planning, Assessment, and Research

As noted in a previous announcement, we are in the process of reconfiguring the Office of Institutional Planning, Assessment, and Research headed by Dr. David Weismiller. We will be hiring some additional staff for that office and working to make it a very effective operation that is well integrated into data collection and analysis processes across the university. Our goal is to provide high quality services that elicit trust and confidence in the data being reported.

For the past few months, we have had the privilege of having Bob Fry, former Director of Institutional Research and Planning at UNC-W and UNC-GA, serve as a consultant in this area. His expertise has been very helpful to us as we work to improve IPAR.

Early College High School

As many of you are aware, many questions were raised, primarily by the faculty, about the viability of an on-campus Early College High School. Those questions were important ones and caused us to push back a bit on the question of space and program planning.

The results are that President Bowles and Governor Easley have given us permission to plan an Early College High School in Second Life. They have agreed that we, as a campus, are far ahead in distance education; and, thus, we should be permitted to experiment with new models of delivering this program to high school students.

Dr. Shirley Carraway, a former school superintendent, has been hired part-time to work on this project with Pitt County Schools and Pitt Community College. We will keep you apprised of our progress. But meanwhile, we will not be seeing the use of real space on our campus for a facility for this purpose. At the same time, however, faculty will be involved with the development of curriculum and general program ideas.

News Items from Meeting of Chief Academic Officers

Each month, I join the other provosts and Dr. Harold Martin, Vice President for Academic Affairs, and other GA staff to discuss current items facing the university system. This meeting, held on Monday and Tuesday of this week, focused on the following items:

- New program proposals going to UNC-GA will be reviewed in terms of their alignment with UNC Tomorrow. And panels of faculty from both within and outside the university will be used to evaluate the proposals, particularly doctoral proposals – a somewhat different approach than in the past.
- There is continued emphasis on distance education programs at UNC-GA. Our College of Business was highly praised for the development of a proctoring model for its MBA program. This model insures that the individual signed up for the online program is indeed the person who takes the exam.
- Harold Martin is appointing a committee on non-tenure track faculty. There are concerns about the increasing number of fixed-term faculty on each campus and

the resulting implications for higher education today. The data from 2007 shows that 49% of the faculty across the UNC universities are fixed-term.

- Rob Nelson's budget update was grim as Chancellor Ballard indicated at the Faculty Senate meeting on Tuesday of this week. We expect additional permanent cuts in July.
- A Global Readiness videoconference is being scheduled by GA. It will highlight the Global Partners program designed by Rosina Chia and Elmer Poe as a cutting-edge, cost-effective model.
- The push continues for all universities in the system to produce more teachers and nurses to meet the needs of the State. Target numbers are currently being negotiated with each campus.

Dissemination of New Positions

We will be distributing new positions to the deans this week. These positions come from enrollment growth experienced this past year.

Dissemination of the positions back to the colleges is based 50% on growth, restitution, and strategic priorities, mainly research.

I have asked each Dean to make budgets transparent in each college, either through the department chairs or through another agreed upon process. At the Executive Council level, Chancellor Ballard has insisted on such transparency; and we want to insure the sharing of budget information in the units.

Marilyn Sheerer, PhD
Provost and Senior Vice Chancellor
for Academic and Student Affairs



Safety & You at ECU

2008 Annual Security Report

East Carolina University is committed to providing a safe and secure learning environment for students, faculty, staff and visitors. Because no campus is immune to crime, East Carolina University has developed and implemented a number of services, programs, and policies to assist the ECU community in crime prevention and to respond effectively to safety and security risks.

Although measures taken by East Carolina University and the campus police department have an effect on the safety of individuals and property, ultimately each community member is responsible for his or her own protection. This guide includes helpful safety tips, residence hall security tips, and information about university policies on crime and crime prevention, and crime statistics. Please use this information to increase your chances for success at East Carolina University and decrease your risk of becoming the victim of a crime.

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East Carolina University Police Department

The ECU Police Department is a full-service 24-hour a day police organization with responsibilities identical to a municipal police or sheriff's department. ECU police officers have jurisdiction on all property owned, operated or controlled by East Carolina University and all adjacent streets and sidewalks. Officers with the department are charged with the responsibility of protecting life and property, preventing and detecting crime on campus, and providing essential services to the university community. These officers enforce the laws of the state of North Carolina as well as the regulations and policies of the university.

The ECU Police Department is located in Blount House, 609 East Tenth Street, next to Umstead Residence Hall.

Organization

The university Police Department has an authorized strength of 81 personnel, of which 62 are sworn officers. The department also employs approximately 24 student patrol officers.

The ECU Police Department is currently organized into five divisions, Office of the Chief, Operations, Telecommunications, Administrative Services and Special Support Services. The department uses a problem solving approach to preventing and/or reducing the number of crimes occurring throughout the campus community. They are a customer services organization and rely on the feedback from the campus community on the quality of services provided. Feedback is provided an on-line customer service survey at http://www.ecu.edu/cs-admin/services/Survey_Police.cfm.

Office of the Chief

The Office of the Chief is staffed by the Chief, Assistant Chief, Staff Lieutenant, Executive Assistant, Business Manager and Payroll Clerk. The Chief of Police is the chief executive officer of the Police Department and is responsible for the protection of lives and property for East Carolina University through the supervision of all police functions. The authority and responsibility of the Chief is designated by a written statement from the appropriate Vice Chancellor as designated by the Chancellor of the University. Under the general direction of the Chancellor, the Chief assumes full responsibility for Department administration and operation within established policies.

The **Internal Affairs** function of the Police Department is conducted by the Staff Lieutenant. All complaints filed against Police Departmental employees are thoroughly investigated.

Operations Division

The **Uniform Patrol Unit** consists of 53 sworn officers who patrol on foot, on bicycles, and in marked patrol cars. Officers from this division patrol and investigate any crimes occurring within the jurisdictional boundaries of both east and west campuses.

Extra Event Scheduling is coordinated through the Operations Division. Personnel within this area are tasked with coordinating officers and departmental personnel working extra events such as athletic events, performing arts events and other special assignments.

Crime Reporting

The ECU Police Department uses the following resources to provide the university community with crime-related information. Every effort is made to provide this information in a thorough, timely manner.

Annual Report

The department produces a comprehensive annual report of any and all crime-related activity occurring on campus throughout the year.

Student Newspaper

The East Carolinian provides a weekly report of on-campus crime-related activity. It also covers any crime-related activity pertinent to the safety and well-being of students, faculty, staff and visitors.

Local News Media

The university often uses local television, radio and print media to provide information on campus-related crime.

Crime Log

A synopsis of crime-related information is posted to the campus community Monday through Friday via the Internet.

Special Alerts

Situations/Incidents that pose a threat to the general campus community are quickly brought to the attention of the campus community through special alerts. These special alerts are a combination of campus electronic mail, pop-up text screens on campus computers, posting of bulletins throughout campus, and a cell phone text messaging subscription service.

World Wide Web

The department maintains a website featuring crime and safety information. Anonymous crime reporting is available through the ECU Police website at http://www.ecu.edu/cs-studentlife/police/report_crime.cfm

Telecommunications Division

The **Telecommunications Unit** includes twelve full-time telecommunicators who handle all emergency and non-emergency telephone calls received in the communications centers on both east and west campuses. These calls include blue light emergency telephones strategically located throughout campus. The telecommunicators also monitor all fire, intrusion and panic alarms on campus.

Administrative Services Division

The **Accreditation Manager** coordinates all departmental policies in accordance with the Commission on Accreditation for Law Enforcement Agencies (CALEA) standards. Once the policies are approved by the Chief of Police, the Accreditation Manager is responsible for collecting reports that show the policies are being followed. The accreditation process occurs in three year cycles. The department was awarded initial accredited status in March 2007.

The **Crime Analyst** completes a monthly crime analysis report. The Accreditation Manager serves as the Crime Analyst for the Police Department. The Crime Analyst presents this information to the senior staff of the Police Department who reviews the information and determines what changes need to be implemented. If a crime trend that needs immediate attention occurs, the Crime Analyst forwards the information through the chain of command to the senior level staff who implements immediate action.

The **Equipment and Supply Section** is responsible for maintaining the departmental equipment and vehicles in a state of readiness.

The **Records Section** is responsible for the management and dissemination of all police reports. Criminal investigations and arrests are submitted monthly to the North Carolina State Bureau of Investigation for crime reporting.

The **Training/Career Development Unit** coordinates the training received by all departmental employees. To maintain their certification, sworn officers are required to attend training mandated by the NC Criminal Justice Education Training and Standards Division.

Support Services Division

The **Crime Prevention Unit** includes two crime prevention sergeants (Main Campus & Brody School of Medicine Campus) and an off-campus community police liaison sergeant who establish educational programs that serve to raise the level of safety awareness among students (both on and off campus), faculty and staff. This unit also coordinates the Residence Hall Liaison Officer Program (RHLOP), conducts vulnerability analyses, provides self-defense programs, manages intrusion and panic alarm systems, and coordinates the Staff and Faculty Eyes (SAFE) community watch program.

The **Investigations Unit** is responsible for investigating any crimes occurring on property owned or controlled by the university. The department has two full-time investigators who are assisted by additional officers on an as-needed basis. This unit is also responsible for completing all background investigations on Police Department applicants. The lieutenant of the investigative unit manages evidence and property control.

The **Student Patrol Officer Program** consists of approximately 24 non-sworn students who check the security of academic, athletic and residence hall buildings, conduct weekly checks of the blue-light emergency telephones, security of bicycles in the bike racks and other job assignments. Student patrol officers provide additional support during athletic events and other university functions.

The **Office of Victim Services** consists of a victim advocate who coordinates support services for victims of serious crimes from the time of the crime through the recovery processes. The victim advocate also coordinates activities during Sexual Assault Awareness Week in September of each year.

Additional information about the department can be found at [http:// www.ecu.edu/police](http://www.ecu.edu/police).

POLICY STATEMENT FOR REPORTING CRIMES

The university encourages all students, faculty, and staff to report crimes or suspected criminal activity promptly and fully.

ECU Campus

Crimes or suspected criminal activity occurring on campus, in campus-owned or operated buildings, or in parking lots or on the streets and sidewalks adjacent to the campus or campus-operated buildings should be reported to the ECU Police Department.

Reports may be made by:

- calling **328-6787** on the **east campus**
- calling **744-2246** on the **west campus**
- contacting a police officer on patrol
- anonymously reporting a crime at <http://www.ecu.edu/cs-admin/police/Anonymous-Crime-Report.cfm>
- going to the Police Department in **Blount House, 609 East Tenth Street**

Emergency contact with the ECU Police Department may be made by:

- using any **blue light emergency telephone**
- calling **911** from an on-campus telephone

Off Campus

City of Greenville

Crimes or suspected criminal activity that takes place in the City of Greenville should be reported by calling 329-3937 or, in an emergency, 911 from an off-campus telephone; by speaking directly to a Greenville police officer; or, by going to the Greenville Police Department at 500 South Greene Street.

County of Pitt

Crime or suspected criminal activity that takes place in Pitt County (outside of the City of Greenville) should be reported to the Pitt County Sheriff by calling 830-4141 or, 911 in an emergency; by speaking directly to a Sheriff's deputy; or, by going to the Pitt County Sheriff's Office at 101 West First Street weekdays between 8:00 am and 5:00 pm.

Mutual Aid

The East Carolina University Police Department has signed agreements with the following law enforcement agencies to provide assistance when requested: Pitt County Sheriff's Department, Greenville Police Department, Ayden Police Department, Bethel Police Department, Farmville Police Department, Grifton Police Department, Simpson Police Department and Winterville Police Department.

Off-Campus Safety Tips

- Research the crime rate in your prospective neighborhood.
- Rent an apartment with well-lighted entrances and parking.
- Check the door for sturdiness and deadbolts.
- Be aware of landscaping that provides hiding places for criminals.
- Do not leave spare keys under the doormat or in other obvious hiding places
- Check with local law enforcement for Operation ID in your area.
- Post emergency numbers by your telephones.
- Never let strangers inside your home.

During home football games and other events that draw large crowds, the ECU Police Department may sign a mutual aid agreement with other law enforcement agencies.

The ECU Police Department collects statistical information from law enforcement agencies on crimes that occur within their jurisdiction on public property that surrounds the ECU campus and from addresses of off-campus properties of recognized student organizations and other non-campus property. This statistical information is included in the ECU Annual Security Report.

Campus Security Authorities

Crimes or suspected criminal activity may be reported to university personnel who have significant institutional responsibility for student campus activities. Such personnel include the ECU Police, the Victim Advocate, the Director, Associate Director and Assistant Director of the Office of Student Rights and Responsibilities, the Assistant Director of Campus Living for Judicials, any housing coordinator, any resident advisor or any advisor of a registered student organization. A complete list of university officials with campus addresses and telephone numbers is available online at http://www.ecu.edu/studentlife/police/security_report.cfm.

Confidential Reports

A report may be made confidentially to any counselor employed by the Center for Counseling and Student Development in his or her official capacity. Counselors may, when they believe it appropriate, inform the victim of procedures to report the assault to the Victim Advocate, the appropriate police department, and/or the Office of Student Rights and Responsibilities. The counselor may accompany the victim making the report. If the student does not wish to make such a report, the student will be told of the right to make a confidential report for statistical inclusion in the annual security report.

General Crime Prevention Efforts

The ECU Police Department's Crime Prevention Program works to minimize opportunities for on-campus criminal activity by promoting awareness. The department conducts presentations and distributes materials including videos, posters, and brochures. Annually, crime prevention unit sergeants and other officers present over fifty educational programs to students, faculty and staff. These programs are designed to educate and inform members of the ECU community about personal safety and the safety of others. The crime prevention sergeant is available to provide risk and threat assessments.



In addition to on-campus crime prevention efforts, the ECU Police Department utilizes a sergeant as the off-campus community relations liaison. The sergeant assigned to this position works with the students who reside off campus to raise their awareness of crimes in their neighborhoods and preventative measures the students can take to minimize their chances of becoming a victim. The liaison works with staff from the ECU Center for Off Campus and Community Living and the Greenville Police Department Community Liaison Officer.

Educational crime prevention programs are also presented by other campus organizations. The Residence Hall Association (RHA), residence hall coordinators, and resident advisors sponsor hall programs and floor meetings on crime prevention, sexual assault and substance abuse. The Office of Campus Wellness provides educational programming in the residence halls, classes, and student organizations on topics ranging from substance abuse to healthful lifestyle choices. In addition to presenting sexual assault awareness information throughout the year, the Office of the Victim Advocate holds several programs during Sexual Assault Awareness Month.

It is the university's hope that every member of the ECU community will attend at least one educational crime prevention programs, especially in the area of sexual assault prevention.

Bicycle Safety Tips

- ◆ Trick riding of bicycles, skateboards, roller-skates, and in-line skates is prohibited on university property.
- ◆ Always lock your bicycle. Your bicycle is less susceptible to theft when using a U-Bolt Lock or a cable lock at least 7/16" in diameter.
- ◆ Always secure your bicycle on designated bicycle racks.
- ◆ Register your bicycle with the Police Department or Parking & Transportation Services.
- ◆ Wearing a bicycle safety helmet is recommended for personal protection.

Parking Lot Safety Tips

- ✓ Park in well-lighted areas.
- ✓ Lock all doors and roll up windows when exiting your car.
- ✓ Have your keys in hand when returning to your car at night and walk with someone whenever possible.
- ✓ Before entering your vehicle, check the interior for anyone hiding within.
- ✓ Never leave valuables in plain sight.

East Carolina University's Policies and Procedures

The primary purpose of East Carolina University is education. In order for each member of our community to effectively study, learn and develop personally, they need to feel a reasonable degree of safety and security. With this in mind, the Board of Trustees of East Carolina University and the University of North Carolina Board of Governors have adopted policies to address dangerous behaviors. Among these policies are the Sexual Assault Policy, the Weapons Policy and the Alcohol and Other Drug Policy, and the Student Code of Conduct. The student handbook can be found on-line at <http://www.ecu.edu/StudentHandbook>. Printed copies may be obtained from the Police Department during normal business hours.



- The Sexual Assault Policy details prevention activities and the resources available to victims of sexual assault, including medical, emotional support, and legal services.
- The Weapons Policy describes weapons that may not be on campus and the sanctions for possession of those weapons.
- The Alcohol and Other Drug Policy identifies drugs according to the North Carolina Schedule and assigns sanctions for the possession, use, sale, distribution or possession with intent to sell or deliver specific drugs in the various categories. It also describes prevention efforts and counseling and treatment services available through the university.
- The Student Code of Conduct describes other behaviors that students should avoid; including but not limited to the misuse of alcohol and other drugs, harassment, endangerment, stealing, disruptive or disorderly conduct, hazing, gambling, academic integrity violations, the use or possession of weapons, fireworks, explosives, and aiding and abetting and sanctions available for engaging in those behaviors.

East Carolina University faculty, staff, students and visitors are expected to follow all federal, state, and local laws and ordinances. They may be subject to prosecution in the criminal courts and to the appropriate university disciplinary procedure when a behavior is a violation of law, ordinance and/or a university policy.

Complete copies of the policies and procedures governing the behavior of faculty, EPA, SPA & CSS staff may be found on the Human Resources website at <http://www.ecu.edu/cs-admin/hr/>. Printed copies are available from the Department of Human Resources.



Sexual Assault Policies

Prevention

The ECU Police Department's crime prevention unit presents specially designed educational seminars on sexual assault issues and prevention, including rape/sexual assault prevention, date/acquaintance rape prevention, and simple self-defense techniques against sexual assault. In addition to these seminars, videos are available, including Campus Rape, When No Means No, The Aftermath of Rape—How Can I Help Her?, and Someone You Know—Acquaintance Rape.

Other university organizations conduct educational sessions on issues surrounding sexual assault and its prevention. The Center for Counseling and Student Development and the Office of Victim Services provide programming that focuses on rape/sexual assault prevention, as well as information about resources available to survivors and their friends. The Office of Victim Services organizes Sexual Assault Awareness Week activities that include Take Back the Night March, candlelight vigil, workshops and resource information sessions and nationally recognized guest speakers.

What to do when a sexual assault occurs

If a sexual assault just occurred:

- Make sure the victim is safe.
- Call the police immediately. Use 9-1-1 if the assailant is still in the area.
- Contact the ECU Police at 328-6787; Greenville Police at 329-4315; Pitt County Sheriff at 830-4121.
- Encourage the victim to seek medical attention and emotional support.

Medical Assistance

It is very important for victims of sexual assault to receive a complete medical examination with evidence collection regardless of whether or not the victim plans to involve the police or university disciplinary officials in the case. (Seeking medical attention does not obligate the victim to report to the police.) In addition to the obvious injuries, a complete medical examination may reveal hidden injuries that need treatment and also provide time and opportunity for a confidential discussion with a trained medical provider concerning issues of potential pregnancy, emergency contraception, communicable diseases and emotional and safety concerns.

A physical examination is offered at both Pitt County Memorial Hospital 24/7 and ECU Student Health Service during regular hours of operation. If a student reports for the examination within 72 hours of the assault, a specially trained forensic nurse will explain the examination and evidence collection procedure and with the victim's permission will collect the evidence.

At the time a student makes contact with the police, PCMH or ECU Student Health Service and reports that he/she has been assaulted, the student is given the option of having a specially trained Sexual Assault Response Team (SART) member from Student Health Service to provide support through the examination and evidence collection process and to also provide important information about other support services that are available to students, such as the ECU Victim's Advocate, counseling, follow-up medical services, as well as how to obtain class excuses and safe housing on campus.

Financial assistance for medical expenses may be available through the North Carolina Victims Compensation Program if certain criteria are met.

Sexual Assault Prevention Tips

Common sense is the best protection against crime. Follow these basic rules.

- Avoid walking alone at night and stay on well-lighted streets.
- Be aware of your surroundings at all times.
- If you are being followed, walk quickly to a populated area.
- Do not give your phone number or address to strangers.
- Do not accept drinks from open containers and don't put your drink down or lose track of it.
- Talk to your friends about your plans for the night.
- Report suspicious behavior. Call the police if you suspect someone is committing a crime. Give the police a good description of the suspect. Do not try to apprehend the individual yourself.

In addition to exercising the common sense rules mentioned above, you should always exercise caution when drinking. In most cases of sexual assault, especially acquaintance rape, drugs and/or alcohol were used by one or both of the individuals involved. If you drink, drink responsibly.

Emotional Support

Counseling. Assistance by a trained professional during and after the crisis can make a major difference in the victim's emotional adjustment. Free and confidential counseling and other referrals are available through the ECU Center for Counseling and Student Development (328-6661). The Counseling Center provides 24 hour emergency support by telephone and professional counseling for currently enrolled students.

Advocacy. A Victim Advocate is available through the Police Department. The Victim Advocate coordinates support services for sexual assault victims from the time of the assault through the recovery processes. Services include advocacy through the legal, medical, and counseling processes; assistance in notifying the police; and with class schedules and on-campus housing concerns.

Seeking support or counseling does not obligate the victim to report the assault to the police or to the ECU Office of Student Rights and Responsibilities.

Legal and Judicial Remedies

The victim of an attempted or completed sexual assault has the option of pressing charges against the assailant in several ways. The victim does not have to choose between the following courses of action, but may utilize some or all of them:

Criminal Prosecution. Reporting a sexual assault or attempted sexual assault to the police does not mean that the victim has to press charges; however, it does begin the legal process should the decision to prosecute be made at a later date. The sooner an assault is reported to the police, the more likely it is that valuable evidence can be collected. If a report is made, the police will work the District Attorney's office to determine if there is enough evidence to justify a criminal trial.

File a Civil Suit. Victims can consult an attorney about initiating a suit for damages in civil court. The purpose of a civil suit is to compensate the survivor for the wrong done to her or him.

File Charges through the University Judicial Process. The university believes that perpetrating sexual assault and/or attempting sexual assault is not acceptable behavior for an ECU student. Both are violations of the Student Code of Conduct: Endangering, injuring, or threatening to injure the person or property of another. This is one of the most serious violations of the Student Code of Conduct.

If the alleged perpetrator is a student and the victim wishes to bring a complaint for violations of the university conduct code against him or her, the victim may make an appointment to meet with the Director, Associate Director or Assistant Director of the Office of Student Rights and Responsibilities to discuss options. During the initial consultation, they will review the incident, clarify the disciplinary process under the Code and explain the options available to the victim. Support persons are welcomed and encouraged to accompany the victim. Having an initial consultation does not obligate the victim to pursue disciplinary action.

If an ECU student is found responsible for sexually assaulting or attempting to sexually assault a victim, sanctions may include expulsion, suspension with the option to petition to reapply, suspension for a defined period of time (that may be as long as the victim is a student at ECU), mandated counseling, removal from a residence hall or residence hall system, removal from a class or academic program, imposition of a no contact order, probation, and/or any of the sanctions or remedies listed in the Student Code of Conduct. These sanctions may be imposed in combination with each other. Both the accused student and the victim will be informed of the outcome of any disciplinary situation in which sexual assault or attempted sexual assault is alleged and, if the accused is found responsible for violating the Code of Conduct, of any sanctions imposed.

Non-ECU students responsible for sexually assaulting or attempting to sexually assault a victim will be prosecuted.

Legal Advice. The Student Government Association maintains an attorney who will answer questions about criminal or civil procedures. This attorney will not represent a student in court, but is available to answer legal questions. To schedule an appointment, call 328-1067.

Important Telephone Numbers	
Center for Counseling and Student Development	328-6661
Office of Student Rights and Responsibilities	328-6824
Victim Advocate	737-1466
SGA Legal Advice	328-1067

NC Sex Offenders Database Available. The North Carolina Department of Crime Control and Public Safety maintains a database of sex offenders registered in North Carolina. This database is available for public viewing through the following web address: <http://ncfindoffender.com/>.

VICTIM'S BILL OF RIGHTS

An ECU student victim of sexual assault has the right to:

- Receive information outlining the procedures a student should follow once an offense has occurred, including who should be contacted and the importance of preserving evidence.
- Be informed of his or her rights and the university procedures for on-campus discipline, including possible sanctions that could be imposed.
- Be accompanied by a support person throughout the process.
- File criminal, civil, and disciplinary charges and receive assistance from the university in notifying the appropriate authorities (i.e., law enforcement, victim advocate, etc.)
- Access services that may limit contact with the alleged assailant, including but not limited to, transferring the victim to alternative classes and or/alternative university-owned housing, where available and feasible.
- Be present during campus disciplinary proceedings whenever evidence is being present and have a support person or legal counsel accompany her or him during the proceedings. (The support persons or legal counsel may not participate in the hearing.)
- Be informed of the outcome of any campus disciplinary proceeding.

A victim of sexual assault may choose not to exercise any of the above rights or not to use services at any time unless it directly threatens the victim's physical well-being.

RIGHTS OF ACCUSED STUDENTS

An ECU student accused of sexual assault has the right to:

- the presumption of innocence until responsibility is proven.
- an objective and impartial hearing.
- timely notice of hearing that shall be defined as not less than 72 hours prior to the hearing.
- be advised by a student advocate.
- question the accuser directly or through a third party.
- be present in the hearing room at all times while information is being presented and to directly or indirectly question any witnesses.
- summon witnesses and present documentary information directly related to the incident.
- not to present information against him or herself.
- if found responsible, the right to have two character witnesses and present a reasonable number of character statements.
- to appeal.
- be accompanied by a support person throughout the process.
- receive a copy of the completed Judicial Action Report.

Weapons Policy

Possession of a weapon while on campus will result minimally in immediate suspension for at least one semester. This restriction includes having a weapon in a vehicle. Possession of a weapon in the residence halls will result in immediate revocation of the housing contract. The complete weapons policy may be found in the Student Handbook on-line at www.ecu.edu/StudentHandbook/IX.htm.

Policy on Alcohol and Other Drugs

The university supports strict enforcement of state and federal laws governing the possession, consumption, use, sale and/or provision of alcohol and/or other drugs.

Consumption, possession, and/or use of any alcoholic beverages before the age of 21 is against university policy. Open possession of alcohol in public campus areas, even if possessed by a person of legal age, is prohibited.

The possession, consumption, use, sale and/or distribution of any controlled substance and/or drug paraphernalia is a violation of university policies, state and local laws, and will not be tolerated on the East Carolina University campus. Should a drug-related incident occur off campus, the university may take disciplinary action if a relationship exists between the activity and the educational mission of the university. The sale, distribution or possession with the intent to sell or deliver controlled substances is considered detrimental to the university's educational mission whether on or off campus. The policies, penalties, and resources related to alcohol and other drugs are detailed in the Student Handbook on-line at www.ecu.edu/StudentHandbook/policies.htm.

Substance Use and Abuse Penalties

University penalties for the illegal possession, consumption, use, sale and/or provision of alcohol and/or other drugs and/or paraphernalia may include mandated assessment, counseling and treatment, drug testing, suspension and expulsion. These penalties are applied in a progressive order depending on the severity of the violation and the number of prior violations. If a student is suspended, she or he must provide proof that she or he is drug-free prior to re-enrolling and that he or she has completed an external assessment and any recommended counseling and/or treatment program.

Being under the influence of alcohol or other drugs can never be an excuse for violating the Student Code of Conduct. Endangering the lives or safety of oneself or others, while under the influence of alcohol or other drugs is considered a very serious offense and may result in immediate suspension from the university.

Substance Use and Abuse Counseling

The university provides extensive resources and services for students, faculty and staff who voluntarily seek assistance for alcohol or drug-related problems. The Center for Counseling and Student Development offers educational workshops, confidential assessment and treatment and/or referral services. Additional information on treatment and outreach programs for students is available on the web at www.ecu.edu/studentlife/counselingcenter/. Human Resources maintains a confidential Employee Assistance Program for faculty and staff. Additional information may be found on the web at www.ecu.edu/cs-admin/hr/.

Security of University Facilities

The university operates and oversees more than 50 buildings and facilities, both on the main campus and in outlying areas. These facilities are divided up into academic and administrative buildings (including athletic facilities) and residence halls. In order to help ensure the security of university-controlled areas and the campus, the university has established certain policies, regulations, and opening and closing times for these facilities.

Academic and Administrative Buildings



Normal business operating hours for East Carolina University are from 8:00 am to 5:00 pm, Monday through Friday. All administrative buildings are locked after hours and on Saturday and Sunday. Normal classroom hours for ECU are from 8:00 am to 10:00 pm, Monday through Friday. Most academic buildings are locked after hours and on Saturday and Sunday. Academic buildings used for Saturday classes are open from 8:00 am to 5:00 pm on Saturdays. Other academic buildings containing special equipment or facilities (computer, photo, and other labs, art studios, etc.) have specific operating hours. Access to several

of these buildings, such as Jenkins Fine Arts Center and the Geology Building is controlled by special card access. These access card doors are monitored by the ECU Police Department in conjunction with the academic departments or organizations within the specific buildings. Unauthorized entry into a university academic or administrative building is a violation of law and the Student Code of Conduct.

Residence Hall Security

East Carolina University currently houses approximately 5,350 students in 14 residence halls. Residence halls are divided into three campus neighborhoods—College Hill, Central and West. Neighborhood Service Offices are located in West End Dining and Todd Dining. The staff in these offices are available to assist residents. Campus Living provides numerous services and resources to help ensure a safe and secure environment for students who choose to live on campus.



Entrance and Exit Security. A safe residence hall is a secure residence hall. Residence hall doors are locked 24 hours a day. In some halls, locked interior doors provide additional security. Surveillance cameras are installed on all residence hall entrance doors. Upon check-in, residents are issued security door keys and room keys. **Opening a security door to a stranger, propping open a security door, or loaning residence hall keys to another individual are violations of residence hall security policies that may lead to removal from university housing.**

Room Security. All residence hall rooms are equipped with sturdy, tamper-proof locks and peepholes and are wired for complete local phone access. Where necessary, security screens are installed over windows.

Propping doors to suites or removing screens are violations of the housing lease and can lead to fines or removal from university housing.

Guests. Guests may enter a residence hall by calling the host from the security phone located at the main entrance of each building and having the host meet them at the entrance. All guests must be escorted by a resident at all times while within the residence halls. Residents are responsible for the actions of their guests. Both the guest and the host may be found responsible for violations of escort policy.

Guests of the opposite sex may be in residence halls only between 10:00 am and 2:00 am. Overnight guests of the same sex are allowed on Friday and Saturday nights, but only with the permission of the roommate. Overnight guests of the opposite sex are never allowed.

Staffing. Residence halls are supervised by professional coordinators. One coordinator may be assigned to several smaller halls, but each hall has either a live-in professional coordinator or a graduate student coordinator. Each floor is assigned a resident advisor (RA). RAs are full-time student staff members who are supervised by the live-in coordinators. The primary responsibility of residence hall staff is to promote a positive residential community that includes the enforcement of policies and security measures.

Staff On-Call. At least one professional residence hall staff member is on-call at all times for each neighborhood. Resident advisors are on duty on a rotating basis in each residence hall from 5:00 pm to 8:00 am during the week and 24 hours a day on weekends. While on duty, RAs make routine rounds through their respective buildings to check for security problems and policy violations.

Staff Training. Live-in professional coordinators have master's degrees in counseling or related fields. Both professional coordinators and graduate coordinators receive in-depth training from the university on security, crisis management, and university policies and procedures. Training for RAs includes participation in ongoing safety and security seminars presented by residence life staff, other university officials, and members of the ECU Police Department.

Holidays and Breaks. Only academic-year residence halls are open during holidays and semester breaks. All other halls are closed. Residents living in closed halls will not have access to their residence hall during these periods.

Safety and Security Programming. Safety and security policies and procedures regarding important aspects of residence hall facilities are presented to residents at initial and ongoing hall meetings by residence hall staff. The residence hall staff, university officials, and the ECU Police Department often provide safety and security seminars for residence hall students, including Operation ID, through which the personal property of students is marked for identification in case of theft. Additionally, each residence hall has a liaison relationship with an individual police officer.

Further information about housing options, residence hall policies and regulations, and residence life in general can be found in the East Carolina University Student Handbook and in the Residents' Handbook. The East Carolina University Student Handbook is available at www.ecu.edu/StudentHandbook. The Residents' Handbook is available to be downloaded at <http://www.ecu.edu/cs-studentlife/campusliving/upload/ResHandbook07-08.pdf>.

Residence Hall Safety Tips

- Always lock the door and windows while you are sleeping and when you leave the room, even if you are just going down the hall.
- Carry your keys with you at all times, even if you are just going down the hall.
- Do not loan your keys to others.
- Be aware of identity theft. Do not leave your checkbook, credit cards or other identification unattended.
- Do not keep large quantities of cash in your room.
- Know who lives on your floor and report unfamiliar people to the residence hall staff or ECU Police.
- Post emergency numbers by your telephone.
- Utilize the ECU Police Department's Operation ID program to record the model number and serial number of any expensive items in your room.
- Never let strangers inside your residence hall.



University Procedures for Preparing the Annual Security Report

The ECU Police Department maintains statistical records concerning crimes committed on campus, and on the streets, sidewalks and parking lots adjacent to campus, including the residence halls. Other law enforcement agencies maintain statistical information concerning crimes that occur at non-campus properties of recognized student organizations; buildings and properties owned or controlled by the institution that are used in direct support or in relation to ECU's educational purposes and frequently used by students and that are not within the same reasonable contiguous geographical area of the institution; the streets and sidewalks adjacent to campus; and non-campus buildings and properties. Specific statistical information about crimes on non-campus properties not in the City of Greenville are maintained and collected from law enforcement agencies in the towns or cities where the properties are located.

Annually, the East Carolina University Police Department staff gathers statistical information concerning reportable crimes. The East Carolina University Police Department statistician provides information about reportable crimes that have taken place on campus and in residence halls. Other law enforcement agencies provide information about reportable crimes that have taken place in non-campus buildings or property and on public property within the campus or immediately adjacent to and accessible from the campus. In addition, confidential reports filed with the University Campus Security Authorities are tabulated and reported by the Office of Victim Services.

East Campus Crime Statistics

The crimes in On Campus and Public Property are different due to past classification misinterpretations.

Criminal Offenses	2005				2006				2007			
	On Campus	Residence Halls	NonCampus	Public Property	On Campus	Residence Halls	NonCampus	Public Property	On Campus	Residence Halls	NonCampus	Public Property
Murder/Non-Negligent Manslaughter	0	0	0	0	0	0	0	0	0	0	0	0
Negligent Manslaughter	0	0	0	0	0	0	0	0	0	0	0	0
Sex Offenses - Forcible	2	2	1	0	5	4	0	1	1	1	1	1
Sex Offenses - Non-Forcible	0	0	0	0	0	0	0	0	0	0	0	0
Robbery	0	0	0	7	3	1	0	7	5	0	0	3
Aggravated Assault	2	1	2	2	5	0	2	2	6	2	0	3
Burglary	34	19	4	0	43	27	2	0	44	19	2	0
Motor Vehicle Theft	1	0	0	5	2	0	0	1	3	0	1	3
Arson	2	2	0	0	2	1	0	0	0	0	0	0

Hate Crimes	2005				2006				2007			
	On Campus	Residence Halls	NonCampus	Public Property	On Campus	Residence Halls	NonCampus	Public Property	On Campus	Residence Halls	NonCampus	Public Property
Murder/Non-Negligent Manslaughter	0	0	0	0	0	0	0	0	0	0	0	0
Negligent Manslaughter	0	0	0	0	0	0	0	0	0	0	0	0
Sex Offenses - Forcible	0	0	0	0	0	0	0	0	0	0	0	0
Sex Offenses - Non-Forcible	0	0	0	0	0	0	0	0	0	0	0	0
Robbery	0	0	0	0	0	0	0	0	0	0	0	0
Aggravated Assault	0	0	0	0	0	0	0	0	0	0	0	0
Burglary	0	0	0	0	0	0	0	0	0	0	0	0
Motor Vehicle Theft	0	0	0	0	0	0	0	0	0	0	0	0
Arson	0	0	0	0	0	0	0	0	0	0	0	0
Any other crime involving bodily injury	0	0	0	0	0	0	0	0	0	0	0	0

Arrests	2005				2006				2007			
	On Campus	Residence Halls	NonCampus	Public Property	On Campus	Residence Halls	NonCampus	Public Property	On Campus	Residence Halls	NonCampus	Public Property
Weapons Violations	10	2	0	3	8	3	0	3	14	2	0	1
Drug Law Violations	57	33	0	23	48	26	0	5	55	25	0	21
Liquor Law Violations	33	12	3	12	126	21	1	15	424	46	0	54

Disciplinary Actions	2005			2006			2007		
	On Campus	NonCampus	Public Property	On Campus	NonCampus	Public Property	On Campus	NonCampus	Public Property
Weapons Violations	6	0	1	5	0	1	7	0	0
Drug Law Violations	67	0	1	35	0	1	44	0	7
Liquor Law Violations	413	0	16	475	0	14	571	0	14

Health Sciences Campus Crime Statistics

The crimes in On Campus and Public Property are different due to past classification misinterpretations.

Criminal Offenses	2005			2006			2007		
	On Campus	NonCampus	Public Property	On Campus	NonCampus	Public Property	On Campus	NonCampus	Public Property
Murder/Non-Negligent Manslaughter	0	0	0	0	0	0	0	0	0*
Negligent Manslaughter	0	0	0	0	0	0	0	0	0*
Sex Offenses - Forcible	0	0	0	0	0	1	0	0	0*
Sex Offenses - Non-Forcible	0	0	0	0	0	0	0	0	0*
Robbery	0	0	0	0	0	7	0	0	0*
Aggravated Assault	0	0	0	1	0	5	1	0	0*
Burglary	4	0	0	6	0	0	3	0	0*
Motor Vehicle Theft	1	0	3	1	0	3	0	0	0*
Arson	0	0	0	0	0	0	0	0	0*

*In 2007, Pitt County Memorial Police were able to provided statistics for just public property.

Hate Crimes	2005			2006			2007		
	On Campus	NonCampus	Public Property	On Campus	NonCampus	Public Property	On Campus	NonCampus	Public Property
Murder/Non-Negligent Manslaughter	0	0	0	0	0	0	0	0	0
Negligent Manslaughter	0	0	0	0	0	0	0	0	0
Sex Offenses - Forcible	0	0	0	0	0	0	0	0	0
Sex Offenses - Non-Forcible	0	0	0	0	0	0	0	0	0
Robbery	0	0	0	0	0	0	0	0	0
Aggravated Assault	0	0	0	0	0	0	0	0	0
Burglary	0	0	0	0	0	0	0	0	0
Motor Vehicle Theft	0	0	0	0	0	0	0	0	0
Arson	0	0	0	0	0	0	0	0	0
Any other crime involving bodily injury	0	0	0	0	0	0	0	0	0

Arrests	2005			2006			2007		
	On Campus	NonCampus	Public Property	On Campus	NonCampus	Public Property	On Campus	NonCampus	Public Property
Weapons Violations	0	0	3	0	0	3	0	0	0*
Drug Law Violations	0	0	13	0	0	11	0	0	1*
Liquor Law Violations	0	0	4	0	0	5	1	0	0*

*In 2007, Pitt County Memorial Police were able to provided statistics for just public property.

Disciplinary Actions	2005			2006			2007		
	On Campus	NonCampus	Public Property	On Campus	NonCampus	Public Property	On Campus	NonCampus	Public Property
Weapons Violations	0	0	0	0	0	0	0	0	0
Drug Law Violations	0	0	0	0	0	0	0	0	0
Liquor Law Violations	0	0	0	0	0	0	0	0	0

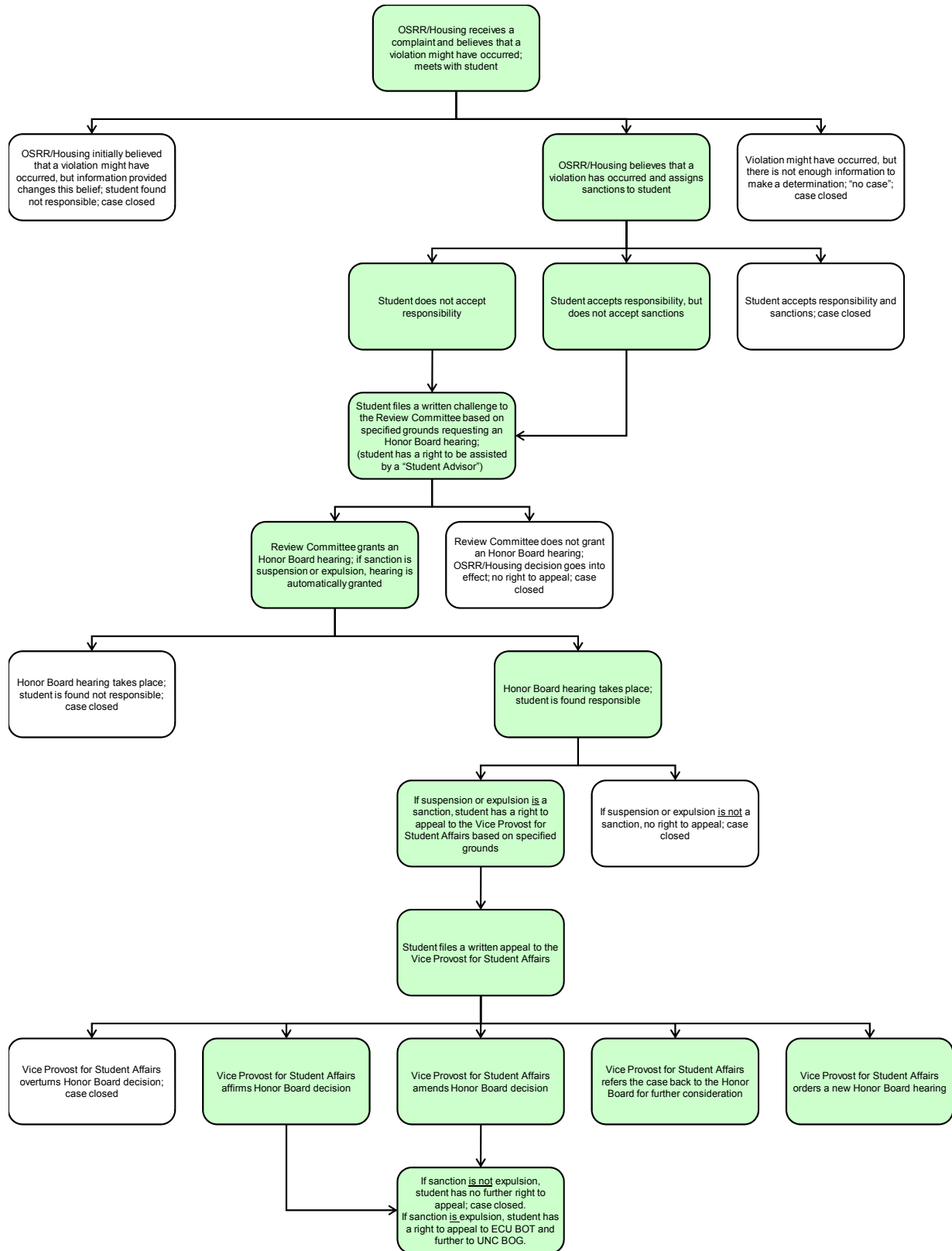
Student Judicial Process Task Force:

A Summary of Proposed Responses to the Gehring Recommendations

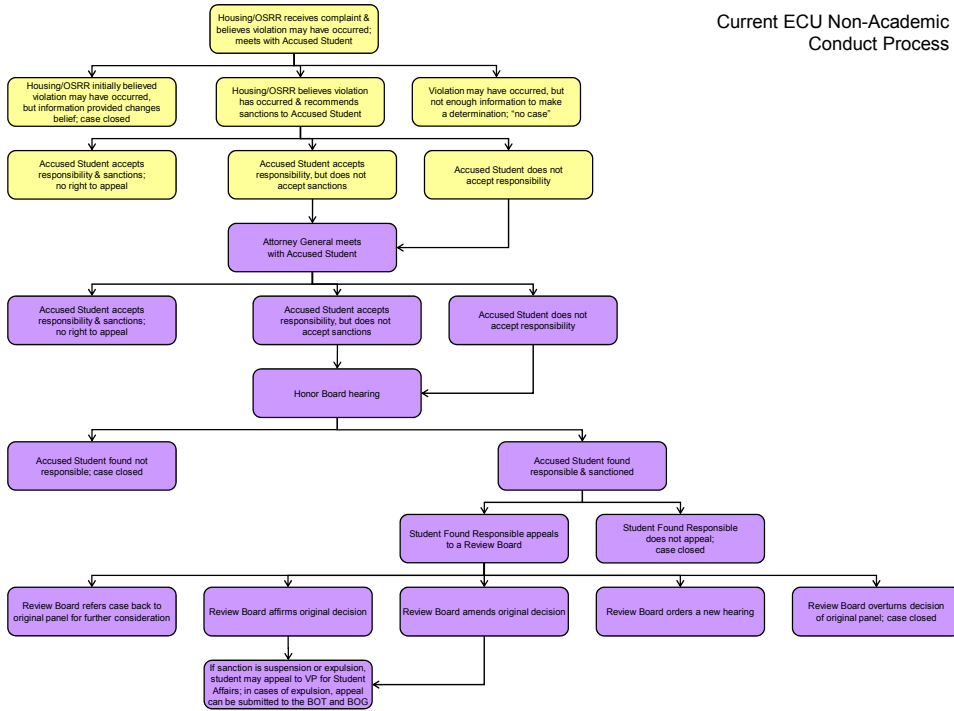
The below points represent the most significant changes and recommendations of the Judicial Process Task Force in response to the Gehring Report.

- ◆ The conduct process has been reengineered to be more developmental and less legalistic in nature while serving the ECU community in a fair and timely fashion. The proposed conduct board will consist of students, faculty, and staff. There will be three students, one faculty member, and one staff member serving on non-academic hearing panels. Academic integrity cases will continue to be reviewed by a panel of three faculty members and two students. (Please see the attached old and proposed conduct process graphs.)
- ◆ With minor adjustments the academic integrity process will remain the same. The only substantial change that is proposed is the incorporation of an expedited appeal process. It is suggested that the student have the option of filing an appeal with the Academic Integrity Board, as is current practice, or choose to have the appeal reviewed by a trained staff member of the Office of Student Rights and Responsibilities.
- ◆ It is recommended that the University adopt an “XF” penalty for violations of the academic integrity policy. Instead of an “F” being recorded on the transcript of a student who failed a course due to a violation of the academic integrity policy, an “XF” would appear as the grade for the particular course. The student would have a one-time opportunity to take a course on ethics and integrity in order to have the “X” removed from the transcript. If there is another violation and the student is failed for the course, the “XF” notation for the subsequent violation would be permanent. There would be an explanation on the transcript describing what an “XF” means.
- ◆ It is recommended that the university take a more proactive stance on academic integrity issues. Students should be better educated about the academic integrity standards and possible penalties. Faculty should be instructed to be more active in addressing this issue with their students and more consistent in applying university standards. Faculty should be required to mention the academic integrity policy in their syllabi. It is suggested that students sign each assignment and examination certifying that they have not cheated on their work or plagiarized.
- ◆ The Office of Student Rights and Responsibilities should be designated as the central depository of all discipline records and all student misconduct should be reported to this office. Units affected by this decision are Office of Student Rights and Responsibilities, the Campus Living Department, Office of Greek Life, Recreational Services Department, Office of Student Activities, and faculty addressing academic integrity allegations. Additionally, the Office of Student Rights and Responsibilities should be the key unit training others on matters concerning the Student Code of Conduct and the conduct process.
- ◆ It is recommended that the Housing “zero tolerance” drug policy be revised to reflect the developmental mission of the university. Only individuals who present a risk to self, others or property should be removed; others should receive a lesser penalty under the housing contract.

Proposed ECU Non-Academic Conduct Process



Current ECU Non-Academic Conduct Process





NORTH CAROLINA GENERAL ASSEMBLY
PRESIDENT PRO TEMPORE
SENATOR MARC BASNIGHT
RALEIGH 27601-2808

July 23, 2008

Erskine Bowles
President
The University of North Carolina
910 Raleigh Road
Chapel Hill, N.C. 27514

Dear Erskine:

Global warming is an issue of utmost importance to our State and the world as a whole. As you know, there's a difference of opinion among the leading scientists about global warming and the risks it may pose to the environment. A few scientists believe that concerns over global warming are unwarranted while others worry that rising levels of carbon dioxide and methane could cause a widespread, significant change in the Earth's climate, including changes in precipitation and weather patterns, more intense and frequent tropical storms and hurricanes, and an increase in sea levels.

As a coastal state, North Carolina is very vulnerable to potential impacts of climate change. Sea level rise, stronger and more frequent tropical storms, and impacts to traditional fisheries are just a few of the potential impacts I have heard about that could have a great toll on our coastal areas. We are already facing great challenges in improving the health of our fisheries, protecting ocean and soundfront property from erosion, and ensuring the continuance of traditional recreational uses of our coastal areas. In addition, as a State in which farming is a major part of our economy, culture and history, the impact that a drought may have on our farmers and on our municipal water supplies is of grave concern. We must prepare ourselves for any new challenges we could face in the coming years because of global climate change.

Our outstanding University System is one of the strongest attributes of the State. We have the country's leading research scientists scattered Statewide, including experts in climate, geology, and marine science, many of whom are already studying global climate change and its potential effects. These experts can help us learn about where we stand with respect to global climate change, and where we could be in 50 years.

Please have the University's research scientists at the system's constituent campuses, where applicable, submit a report on global warming, including its causes, the timetable of expected effects or results, and what North Carolina and our nation as a whole can do to prevent global warming or mitigate further effects of it. Because scientists are influenced by the way they interpret data and by their broader views of the world, it is very important that the researchers at each campus do not consult with

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scientists at other campuses, but submit reports that are a result of their individual research and analyses. I also believe that each campus research team should submit its report to its chancellor for review, and that the report should be studied and openly discussed by each Board of Trustees at a regular meeting of the Board. After their review, the Trustees would formally transmit the report to the President's Office on or before December 15, 2008.

Thank you for your assistance with this matter. I look forward to reviewing the reports on global warming from our State's leading research scientists and to working on a way that North Carolina can do its part to mitigate the impact of global warming.

Sincerely,

A handwritten signature in black ink, appearing to read "Marc Basnight". The signature is written in a cursive, flowing style.

Marc Basnight

GLOBAL WARMING AND COASTAL NORTH CAROLINA



Croatan Sound and eroding marsh on Roanoke Island

A Response in Two Parts from East Carolina University to Senator Marc Basnight's Request Concerning Global Warming

Executive Summary

Part 1: Global Warming and Coastal North Carolina (p. 5-11)

Part 2: Background Material with Sources (p. 12-32)

October 2008



PREFACE

On July 23, 2008, Senator Marc Basnight, President *Pro Tempore* of the North Carolina General Assembly, wrote to University of North Carolina President Erskine Bowles to request that “the University’s research scientists...submit a report on global warming, including its causes, the timetable of expected effects or results, and what North Carolina and our nation as a whole can do to prevent global warming or mitigate further effects of it.”

This report provides the response to Senator Basnight’s request by research faculty at East Carolina University (ECU), and is presented in two parts, the first a general summary, the second a more detailed technical section including the references to the scientific literature upon which the report’s findings are based. It addresses the effects of climate change on a time scale that is relevant to our children, grand-children, even our great-grandchildren. Given the long history of ECU faculty research at the coast, this report concentrates on the effects of climate change on coastal North Carolina. Appendices contain the text of Senator Basnight’s request (Appendix A), a list of authors and contributors to this report and the names of ECU faculty engaged in coastal resource and climate change issues (Appendix B).

Highlights from the report are provided in the Executive Summary.

Stephen J. Culver (culvers@ecu.edu)
Report Coordinator, October 2008

EXECUTIVE SUMMARY

Key findings

- Global warming is a reality and is driven in large measure by the burning of fossil fuels and the emission of greenhouse gases. Compelling evidence to support these conclusions comes from scientific observations of increases in global average air and ocean temperatures, widespread melting of glacial ice, and rising global sea level.
- Risks to North Carolina from climate change include sea-level rise; the increase in the severity and, perhaps, frequency of tropical storms; extremes in precipitation ranging from drought to deluges and flooding; changes in the availability of water; accelerated coastal erosion; and the threat of barrier island collapse, specifically on the Outer Banks but also on other susceptible barrier islands. The low-lying agricultural land and wetlands in eastern North Carolina will be especially susceptible to sea-level rise and highly variable precipitation, although the nature of these impacts is far from clear.
- The social and economic impact of changes tied to climate warming can be profound for the state and its citizens. Population increases, migration, development, tourism and the growing wealth located on the coast increase the vulnerability to severe events such as storms, hurricanes, and rising sea-level. The impacts of these events are disproportionately felt by the poor and those vulnerable to the injuries, infections, and fatalities associated with traumatic events and changing disease vectors.

Response and Recommendations

The big challenge for North Carolina is to anticipate and plan for events with potentially massive economic and social impacts, but which remain poorly understood in terms of complexity, timing, causality, frequency, and probability. Despite these daunting uncertainties, inaction is not an option. The potential costs are simply too great. Consequently, we offer the following recommendations to continue efforts already begun by the Legislature to identify and define public policies that will enable the state to anticipate rather than react to an uncertain future.

- Create a Commission on Adaptation to Climate Change to review the initiatives of other coastal states; assess the costs and benefits of various responses to climate change-related socio-economic changes; and prepare a short- to long-term, state-wide strategic plan based on the best available science that focuses on mitigation measures that will minimize impacts on citizens, the economy, and ecosystems.
- Initiate a study to assess the socio-economic impact of storm/sea-level rise-related breaks in the vulnerable Outer Banks and other particularly susceptible barrier islands.
- Create a Coastal Adaptation Fund to provide sustained research support on climate change and the coast; purchase land or conservation easements on at-risk portions of the coast; design incentives to construct ecologically beneficial erosion control structures on

estuarine shorelines; conduct an inventory and mapping of coastal, estuarine, and riverine resources to enable more accurate estimates of impacts of climate change; and identify coastal areas vulnerable to threats to life and property and provide recommendations to mitigate dangers.

- Commission a panel of experts to conduct a critical review and assessment of the capacity of state government to respond to the challenges of climate change, adaptation and mitigation.
- Increase support to the North Carolina Sea Grant Program, and complementary university outreach programs, to provide practical climate change adaptation information to government, business, industry and citizens.
- Establish a network of university research centers to address issues associated with climate change and adaptation; accelerate center development by establishing a program of distinguished professorships in these fields.
- Design incentives for UNC faculty to conduct research that advances knowledge and contributes to the information needs of decision-makers and citizens.



Nor'easter at Rodanthe

PART 1: GLOBAL WARMING AND COASTAL NORTH CAROLINA

GLOBAL WARMING AND CLIMATE CHANGE

The leading body of scientists for the evaluation of global warming and climate change on an international scale is the Intergovernmental Panel on Climate Change (IPCC). Their recently released major report, marking 20 years of study, states the following.

“Warming of the climate system is unequivocal, as is now evident from observations of increases in global average air and ocean temperatures, widespread melting of snow and ice and rising global average sea level.”
(IPCC, 2007)

The authors of this ECU report accept the basic points that the global climate is warming, that human activities (particularly greenhouse gas emissions) have most likely contributed to this change, and that the impacts of change have already begun to affect the natural environment and human activities

DEGREES OF UNCERTAINTY

There is little uncertainty in the IPCC’s broad and important proclamation. There is, however, uncertainty associated with more specific aspects of climate change and its effects. Uncertainty increases under the following conditions:

- in attempting to quantify the exact amount of change,
- in moving beyond physical measurements such as temperature to assessing ecological and socio-economic changes,
- in reducing the focus from global to regional to local conditions,
- in projecting change further into the future.

These uncertainties are all driven by the fact that the systems affected by, and affecting, climate change are highly complex, the observational data are noisy, and the effects of these conditions tend to be focused on specific places in the near-term, and only become generalized in long-term projections. As an example, consider predicting the trajectory, intensity and impacts of a recent storm such as Hurricane Ike in September 2008. Predicting the general path was much easier than predicting the storm’s eventual characteristics such as storm surge height, economic damage, and fatalities resulting from its landfall near Galveston, Texas. The path prediction mainly involved physical processes and was difficult enough. The latter predictions required an understanding of the combination of physical processes with a myriad of human decisions and interactions, creating tremendous complexity and resulting uncertainties. Projecting the specific effects of a higher frequency of large hurricanes over a wide swath of coast is similarly even more complicated and uncertain.

One way to deal with this complexity is to subdivide the problem into three components: climate and circulation, geological processes and ecological functions, and human activities. Each of these, in turn, is made up of multiple interacting and complex systems. While we can use this

division to make the problem more approachable, it is essential to keep in mind that these systems interact directly and indirectly in strong and subtle ways; because they are interlinked, changes in one may initiate feedbacks that, in turn, affect other parts.

THE RESOURCES AT RISK

The variety and scale of natural resources and human infrastructure/activities in coastal North Carolina that are threatened by the effects of global warming and sea-level rise are immense.

Natural Resources and Ecosystem Services: Approximately 325 miles of barrier islands with more than 20 inlets; the second largest estuarine and wetland system in the US; over 5,000 miles of estuarine shoreline; eight major drainage basins and their fresh and brackish water bodies and associated wetland systems.

People and Industry: Population of 865,000 residents in 20 coastal counties (population growth rates in some ocean-front counties of 75-150% since 1980); tourism, agriculture, forestry and commercial fisheries.

Infrastructure: public and private buildings in 20 coastal counties; roads and bridges; power systems and sewage treatment plants; water treatment and distribution systems.

United States and North Carolina Government Land Holdings and Operations: US military bases (3 major bases and many support facilities); U.S. Coast Guard facilities (numerous); US National Park Service (two National Seashores and two Historical Sites); US Fish and Wildlife Service (13 National Wildlife Refuges); US Forest Service (one National Forest); North Carolina Department of Transportation (two major ports, 16 ferry facilities, many miles of coastal highways and many coastal bridges); North Carolina Division of State Parks (10 State Parks and Historic Sites); North Carolina Division of Wildlife Resources (~300 public boat launch sites and ~2 million acres of game lands).

THE RISKS

Among the risks predicted by the IPCC and ECU investigators, the following are the most prominent:

Sea-Level Rise. The IPCC Report (2007) predicts increased rates of global sea-level rise over the next century in direct response to global climate warming. The most current models indicate that sea level will likely rise between 1 foot to 6.6 feet above modern mean sea level by the year 2100. The North Carolina coast is experiencing the highest rates of relative sea-level rise along the entire US east coast. Short-term data for the period from 1980 to 2000 at Duck, North Carolina indicate that sea level for the Albemarle/Pamlico region is rising slightly faster at about 18 inches/100 years. ECU and U. Penn studies of salt-marsh peat on Roanoke Island indicate that the rate of relative sea-level rise has increased from 3 inches/100 years between 0 AD and 1800 AD to 7 inches/100 years during the 19th century and to 16 inches/100 years during the 20th century (Figure 1).

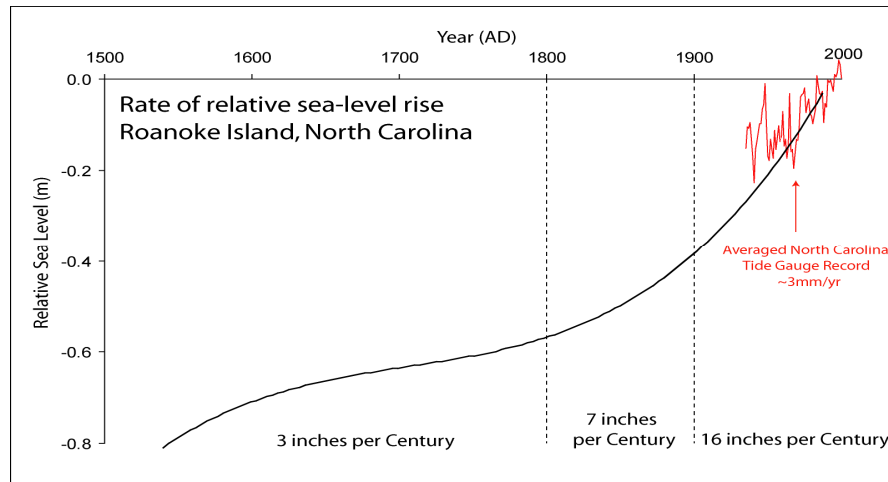


Figure 1. Generalized relative sea level at Roanoke Island since 1500 AD based upon salt marsh microfossils (foraminifera) from Sand Point (Kemp, Horton, Culver and Corbett, unpublished, East Carolina University and University of Pennsylvania); current rate of relative sea-level rise based on Roanoke Island data is 16 inches per century (4.2mm per year).

Potential Increases in Severity of Tropical Storms. Anvil (thunderstorm) clouds formed in West Africa move into the Atlantic Ocean and play a crucial role in hurricane formation. About half of the hurricanes in the Atlantic Ocean form within African waves that propagate westward into the Atlantic Ocean. ECU investigators are combining field observations and satellite imagery to focus on the dynamics and variability of these waves and their effect on tropical cyclone genesis in the Atlantic Ocean. Meanwhile, there is growing evidence that warmer ocean temperatures are increasing the number of hurricanes that reach category 4 or 5.

Extremes in Precipitation. An intensification of the global hydrologic cycle (increasing rates of evaporation, precipitation, and stream flow) suggests that more extremes will occur. The IPCC (2007) expects an increase in the number of summer thunderstorm events in North Carolina and an increase in the probability of drought in the western portion of the state. A further understanding of regional atmospheric dynamics and their relationship to drought will be increasingly important in the face of global climate change.

Changes in Water Resource Availability. Water supplies will be affected by changes in precipitation patterns. Water supply adaptation measures will need to focus on both supply-side (conservation and pricing) and demand-side (storage and infrastructure) strategies to decrease the risk of severe water shortages.

Coastal Erosion/Inlets/Barrier Island Collapse. Sea-level rise and storm activity are the two main processes that drive barrier island migration and coastal erosion. In areas with minimal human influence, sand is transported during storms across the islands as overwash, or funneled through inlets to accumulate in flood tidal deltas, both of which allow the islands to build width and elevation in the face of rising sea level. Human modifications such as constructed barrier dunes interfere with these natural processes and accelerate erosion on

both the ocean and estuarine sides of the islands. Sea-level rise and greater intensity tropical storms can be expected to make that interference even more detrimental to the continued existence of the barrier islands.

Ecological and Agricultural Effects. Global climate change will increase temperature and alter the water cycle. These changes in environmental conditions can affect virtually all ecological and human systems. The severity of impact and even whether the impact is beneficial or detrimental to a particular system depends on how humans have modified the ecological systems that support them. Sea level-controlled wetlands border much of the lands of eastern North Carolina. These wetlands may lose area due to accelerated sea-level rise (that overcomes their ability to increase in elevation), greater intensity storms, and because of natural or artificial barriers to inland migration.

Much of the economy of eastern North Carolina depends on human activities on low-lying lands or on the water including recreation, agriculture and fisheries. Sea-level rise may lead to a rise in the ground-water table, which may become more saline, while higher temperatures during the growing season may stress plants and in winter may decrease the die-back of crop pests. Additionally, droughts or less pronounced changes in rainfall patterns may reduce yields, while more frequent storms may result in crop failure.

Social Impacts of Climate Change. Concerns meriting serious consideration are disasters due to the effects of global climate change conflicting directly with development and population migration trends along North Carolina's oceanic and estuarine coasts; economic disparity resulting from disadvantaged groups being those most adversely affected by disasters, while being less likely to recover fully from them; an increase in proportional damages as dollar amounts of damage become greater relative to household income, or the value of specific losses are larger relative to a household's total assets.

Impact of Climate Change on Residential Development. Coastal development and economic activity along North Carolina's coastline is vulnerable to risk associated with sea-level rise and coastal storms. Northern, low-lying parts of the North Carolina coastline are more vulnerable to the effect of sea-level rise than the central or the southern parts. Lower income households may face more economic vulnerability due to lack of ability to purchase flood insurance. In addition, loss of beach area to coastal erosion can impose considerable economic costs on recreational users and is a constant threat to beachfront homes

Impacts of Climate Change on Tourism. Tourism is a major economic driver across all of North Carolina and is an industry that is particularly sensitive to weather conditions and climate fluctuation and change. These can compel businesses to shorten traditional profit-making seasons, force them to raise prices or invest in alternative business activities to help cover economic losses, and can challenge resort communities in their efforts to retain stable business activity and year-round permanent residents.

Public Health and Climate Change. Climate change is a significant threat to the health of the public. Major concerns in North Carolina include injuries and fatalities associated with severe weather events and heat waves; increase in infectious diseases related to changes in

vector biology; allergic and asthma exacerbation related to increased allergens; and increases in cardiovascular and respiratory diseases related to air pollution. If warming trends continue, there will be higher rates of climate-related illness and death in North Carolina.

WHAT CAN (AND MUST) BE DONE ABOUT CLIMATE CHANGE?

Climate change presents dramatic challenges to the state of North Carolina. Predicting its challenges must be coupled with preparing for them. The extent to which our state can cope with current and likely climate-related changes will be determined by our foresight, imagination, and commitment to adapt.

North Carolina must address the issues resulting from climate change with a firm commitment to the well-being of future generations. Specifically, it must continue efforts to reduce greenhouse gas emissions; develop policies to mitigate the most dangerous effects of climate change on life, property, and the coastal environment; and assess the organization of state government to ensure that it is designed to look to the future and not simply react to rapid and potentially devastating events associated with climate change. Basic assumptions guiding our recommendations are: (1) that climate change is a reality; (2) that the energy economy is a key contributor to these changes through the emission of greenhouse gases; (3) that these changes bring potentially severe threats to life, property, and the state economy; (4) that government action is required to anticipate, plan, and mitigate the worst effects of these changes; (5) that coastal North Carolina is especially vulnerable to major economic disruption associated with climate change; and (6) that the state's institutions of higher education can make major contributions to the development and implementation of policies designed to respond to these challenges. These assumptions provide the basis for the following general recommendations.

Recommendations

For the State

- The Legislative Commission on Global Climate Change established in 2005 has made progress on energy issues. It has become clear, however, that the broader issue of climate change and its social impacts are far more complex and require a special initiative to complement the work accomplished by the Commission to date. Thus, the General Assembly should create and fund a separate blue ribbon Commission on Adaptation to Climate Change comprised of state and national experts with staff support provided by agency and university specialists to: (1) provide a comprehensive, critical review of initiatives taken by other coastal states to respond to climate change; (2) assess, using the best scientific information available, the costs and benefits to the citizens of North Carolina associated with various levels of response to social and economic changes stemming from climate change; and (3) prepare a state-wide strategic plan targeted at short-term (5-10 years), mid-term (25-50 years), and long term (50-100 years), using scenarios based on the best available science and recommending mitigation measures to adapt to these changes. The plan should recommend priorities for action based on the likelihood of impacts and minimizing the impacts on citizens, the economy, and ecosystems.

- North Carolina, along with Louisiana and Florida, are probably the three states most vulnerable to storms, hurricanes, and the consequences of sea-level rise. Between 1980 and 2007, North Carolina shared the impacts of between 26 and 30 individual climate and weather-related disasters, the majority of them storms, that each caused over one billion dollars in total damages (<http://www.ncdc.noaa.gov/img/reports/billion/state2007.pdf>). A storm as severe as, for example, Hurricane Katrina would have a devastating impact on the coastal land, waters, ecosystems, and the built environment of northeastern North Carolina. The Outer Banks are particularly vulnerable. Consequently, we recommend that the General Assembly initiate immediately a study based on the best available science to assess the social and economic impact of a break or breaks in the Outer Banks, and other particularly susceptible barrier island systems, resulting from severe nor'easter or tropical storms or a powerful hurricane. Such an assessment must focus not only on the costs associated with property and infrastructure damage, but with the impact of this destruction on the state economy as it faces lost income and bears the high cost of recovery.
- The scientific foundation for adapting to changes as complex as those caused by climate change is reliable, long-term support for research, policy analysis, and coastal land management. We recommend that the General Assembly create a dedicated Coastal Adaptation Fund, through a surcharge on the North Carolina Beach Plan and other sources, to be used for, but not limited to, the following: (1) provide long-term, sustained support for research on all aspects of climate change, particularly those in the most vulnerable coastal regions; (2) purchase of land or conservation easements on at-risk portions of low-lying coastal lands; (3) design incentives for land owners for construction of ecologically beneficial erosion control structures on estuarine shorelines; (4) conduct an inventory and mapping of the state's extensive coastal, estuarine, and riverine resources, including developed and undeveloped land within the coastal margin, to enable more accurate estimates of the impacts of storms, sea-level rise, precipitation extremes on these resources and their environments; and (5) identify coastal areas especially vulnerable to threats to life and property and provide recommendations to mitigate these dangers.
- We recommend that the General Assembly commission a panel of experts to conduct a critical review and assessment of the capacity and organization of the North Carolina state government to respond to the complex, long-term issues of climate change, adaptation, and mitigation. Such a review must pay particular attention to the expertise available to agencies; interagency coordination and collaboration; the prospect of a cabinet level office of Climate Change, Adaptation, and Mitigation; and the need for additional changes in state agencies to strengthen their capacity to respond to these changes.
- Decision-makers at all levels, from the governor to county commissioners, and from teachers to business owners, require access to the best available natural, social, and policy science information available to respond prudently to climate change. The General Assembly should increase its support to the North Carolina Sea Grant program and complementary university outreach programs, to enable them to expand and strengthen

significantly their advisory services to provide practical climate change adaptation information to government, business, industry, and citizens.

For the University of North Carolina System

- One of the greatest resources the state can bring to bear on climate issues is the expertise available through the University of North Carolina system. In order to enlist and coordinate these resources, we recommend that the General Assembly and the UNC leadership charter a network of research institutes and centers focused on the range of topics in climate change relevant to North Carolina and accelerate development of these institutes and centers by establishing distinguished professorships in climate change, adaptation, and policy. Such an investment will enable North Carolina to recruit the top experts in these fields to research and advise the state on these issues.
- University faculty are challenged by the need to balance efforts to advance their disciplines through research, provide excellent instruction to students at all levels, and serve their university and broader professions. University leaders must make a commitment to identify incentives for faculty to encourage and reward them for reaching beyond their disciplines and sharing their knowledge in an accessible manner with decision-makers and citizens.

North Carolina must provide for its future by anticipating future events, predicting their impacts, recognizing vulnerability, and planning responses to the changes affecting our planet. It has become clear that the future will not be business as usual, and even without global climate change a sustainable future will be a challenge that will take coordinated and comprehensive efforts. Far-sighted planning is imperative to address the inevitable consequences of climate change and to provide for a managed future that embraces inevitable changes in a positive and potentially beneficial manner. The alternative, managing our coastal resources disaster by disaster, is a consequence of inaction that we cannot afford, and given our current understanding of the future's challenges could never be justified.



The beach at the "S curves," northern Rodanthe

PART 2: BACKGROUND MATERIAL WITH SOURCES

PROCESSES OF CLIMATE CHANGE

Global Warming and Carbon and Water Cycles

It is extremely likely that humans have exerted a substantial warming influence on climate (IPCC, 2007) primarily because of the increase in carbon dioxide from the burning of fossil fuels and land clearance. Global warming, in turn, is likely to impact smaller-scale atmospheric phenomena, such as hurricanes, which will influence many of the expected physical and social impacts of climate change in North Carolina.

During the 1990s temperatures in North Carolina were warmer than normal, but not as warm as the 1950s (Boyles and Raman, 2003), indicating decadal-scale variability. Boyles and Raman (2003) also noted a trend toward a lengthening of the warm season. Annual precipitation over the eastern US has significantly increased in the 20th century (IPCC, 2007), but no trend is evident throughout North Carolina (Robinson, 2006), although precipitation has generally increased in the fall and decreased in the summer. The east coast of the US is projected to warm 2-3 °C to 2100, and a little over half of the climate models show a slight increase in precipitation in winter, summer, and annually of 5-10% (IPCC, 2007).

While the warming effect of greenhouse gases is one of the atmospheric processes that are certain, what is less certain are the future volumes and the future global distributions of greenhouse gases. To reduce this uncertainty, we need to quantify the major sources (e.g., burning of fossil fuel) and sinks (terrestrial ecosystems and the ocean) of carbon (IPCC, 2007). This is being carried out by ECU researchers through networks of long-term field measurements and advanced numerical modeling of the exchanges of heat and mass (CO₂ and water vapor) between terrestrial ecosystems and the atmosphere (Baldocchi et al., 2001; Schmid et al., 2000; Schmid et al., 2003). Cloudiness, drought, air pollution, ecosystem management, deforestation, and even wind affect these exchanges (e.g., Rocha et al., 2004; Schmid et al., 2003). Much of North Carolina is forested, and current research efforts at ECU hope to predict how this ecosystem will respond to and interact with future climate change.

Precipitation and Storms

One of the big questions regarding climate change is the likely amount of future precipitation increase. One theory suggests a small 1-3% increase in precipitation globally, because the atmosphere is warmer and will hold more water vapor, meaning less condensation than expected (Allen and Ingram, 2002). Other models show a larger 7% increase, possibly due to weakened atmospheric circulations – or a permanent El Niño-like climate (Wentz et al., 2007). An El Niño event is an anomalous warming of the central to eastern Pacific over the course of 3 to 12 months, and a moderate one increases tropical oceanic precipitation by over 3% (Gu et al., 2007). Recent studies (e.g., Vecchi et al., 2006) have observed a trend towards an El Niño climate state in the Pacific, which has consequences for the Atlantic hurricane season. While a warming of the Atlantic Ocean is expected to result in a greater intensity and frequency of hurricanes (Goldenberg et al., 2001; Webster et al., 2005), an increase in high level winds

emanating from the Pacific El Nino would have the opposite effect, shearing clouds and preventing hurricane development (Wang and Lee, 2008). However, Curtis (2006) demonstrated that an El Nino climate state would be consistent with more powerful wintertime coastal storms (nor'easters) in the southeast U.S.

An intensification of the global hydrologic cycle (increasing rates of evaporation, precipitation, and stream flow) suggests that more extremes will occur. The IPCC (2007) expects an increase in the number of summer thunderstorm events in North Carolina and an increase in the probability of drought in the western portion of the state. Understanding regional atmospheric dynamics and their relationship to drought will be even more important in the face of global climate change (Cook et al., 2007; Arrigo, 2008).

One of the largest uncertainties in global climate models that forecast future climate change is the role of clouds on the Earth's climate. The generation of anvil clouds in tropical thunderstorms can be linked to important regional circulation patterns (Rickenbach et al., 2008). Anvil clouds formed in West move into the Atlantic Ocean and play a crucial role in hurricane formation. About half of the hurricanes in the Atlantic Ocean form within African waves that propagate westward into the Atlantic Ocean. ECU researchers are using combined field observations and satellite imagery to focus on the dynamics and variability of these waves and their effect on tropical cyclone genesis in the Atlantic Ocean (Nieto-Ferreira et al., 2008), which will help tropical forecasting and hurricane preparations in North Carolina.

Sea-Level Rise

The IPCC Report (2007) predicts increased rates of global sea-level rise over the next century in direct response to global climate warming. The most current models indicate that sea level will likely rise between 0.3 m (1 foot) to 2 m (6.6 feet) above modern mean sea level by the year 2100 (Overpeck et al., 2006; IPCC, 2007). Long-term tide gauge records (e.g., Douglas et al., 2001) indicate that sea level is rising at about 1.01 feet/100 years in the Charleston area and about 1.06 feet/100 years in the Norfolk, Virginia area. Short-term data for the period from 1980 to 2000 at Duck, North Carolina (Zervas, 2004) indicate that sea level for the Albemarle/Pamlico region is rising slightly faster at about 1.50 feet/100 years.

Extensive studies of salt-marsh peat on Roanoke Island by researchers at ECU with collaborators at the University of Pennsylvania have produced detailed sea-level curves for the past few thousand years (Kemp et al., 2008; Horton et al., 2008). The rate of sea-level rise recorded in cores of peat can be determined by using multiple research approaches (radiocarbon, lead and cesium isotopes, and various types of microfossils). The resulting data indicate that the rate of relative sea-level rise has increased from 3 inches/100 years between 0 AD and 1800 AD to 7 inches/100 years during the 19th century and to 16 inches/100 years during the 20th century (Table 1). The latter rate is confirmed by tide gauge data from the Duck Field Research Facility since 1980 (Zervas, 2004).

Is a rate of 16 inches/100 years of sea-level rise (Horton et al., 2008; Kemp et al., 2008) for rising sea-level significant for the North Carolina coastal system? Major portions of Currituck, Carteret, Dare, Hyde, Tyrell, and Pamlico counties are only 1 to 2 feet above present sea level.

TABLE 1. The varying rate of relative sea-level rise in northeastern North Carolina for the last 11,000 years (extracted from data in Horton et al., 2008, in press; Kemp et al., 2008).

11,000 - 8,000 yrs ago	30 inches/100 yrs
8,000 - 2,100 yrs ago	6 inches/100 years
2,100 – 200 yrs ago (100 BC – 1800 AD)	3 inches/100 years
200 – 100 yrs ago (1800 AD – 1900 AD)	7 inches/100 years
100 – 0 yrs ago (1900 AD – 2000 AD)	16 inches/100 years

PHYSICAL AND ECOLOGICAL EFFECTS OF GLOBAL CHANGE ON THE COAST AND THE COASTAL PLAIN

Climate Change and Our Estuaries

North Carolina has one of the most extensive estuarine systems in the US. The estuaries are the interface between the ocean and continent; a mixing zone of fresh and salt water. As such, any change in climate, including temperature and precipitation, will create major changes in this system. Like many estuarine systems in the US and across the globe, North Carolina's estuaries have been stressed due to population growth and development. Nutrient additions to our estuaries in the last several decades have created eutrophic conditions, leading to hypoxic/anoxic conditions during much of the summer (Christian et al., 1989, 1991; Spruill et al. 1998; Paerl et al., 2002). Baird et al. (2004) have already shown how eutrophication has impacted the food web of the Neuse River estuary through hypoxia. Increases in temperature in the near future will exacerbate this problem, ultimately altering the food web in these systems (Peterson et al., 2008).

Changes in precipitation patterns (increased or decreased rainfall) and, therefore, river flow will influence nutrient delivery and cycling, flushing rates, and salinity values in the estuaries. Each of these responses will influence the structure (e.g., plant and animal composition) and function (e.g., plant and animal production, nutrient cycling) of the estuarine system.

The Albemarle-Pamlico estuarine complex is unique in that it is large and shallow, and has very few inlets. This leads to a system that has limited astronomical tidal range (~10 cm) and that is dominated by wind tides and waves that are intimately connected with bottom sediments. The likely increased storm activity will increase the rate and extent of estuarine shoreline erosion and associated land loss throughout the wetlands and uplands of the North Carolina estuarine system (Riggs, 2001a; Riggs and Ames, 2003; Cowart et al., in review). In addition, increased storm activity will open new inlets, thus impacting the physical and chemical dynamics within the estuaries, increasing the astronomical tidal range and salinity content, which in turn will impact fisheries, benthic ecosystems, and intertidal wetlands (Brinson et al., 1985, 1995; Corbett et al., 2007). Storms will also increase the rate at which sediments are mixed into the water column, changing nutrient dynamics, turbidity, and potentially the fisheries (Giffin and Corbett, 2003). Current research and observing efforts in our estuaries are providing the necessary scientific background to better manage these systems in the face of climate change (see <http://coastal.geology.ecu.edu> and <http://www.coastal.geology.ecu.edu/NCCOHAZ/>).

Water Resource Management in Response to Climate Change

As recently stated by the IPCC, “observational records and climate projections provide abundant evidence that freshwater resources are vulnerable and have the potential to be strongly impacted by climate change, with wide-ranging consequences for human societies and ecosystems” (Bates et al., 2008). The possibility for an increase in extremes where the net annual precipitation changes little but it is delivered in the form of larger storm events (Huntington, 2006) suggests increased likelihood of major floods and corresponding droughts. Tree ring records indicate that the Coastal Plain suffers from severe drought on approximately thirty-year cycles (Stahle et al., 1988). Climate change may cause these extreme events to become more frequent. For example, in 1999, a series of five storm events produced the catastrophic Floyd Flood with dramatic impacts on estuarine water quality, the coastal plain, its people and the economy (Maiolo et al., 2001). From 2006 to present, a lack of rainfall throughout the year and the absence of major tropical storms led to a major drought throughout the state, which is still affecting the state’s water resources.

Although regional precipitation is spread somewhat evenly throughout the year, a strong seasonality in river discharge is common, owing to high rates of summer evapotranspiration. The summer low flows correspond with the peak water demand period. Agricultural industries, power plants, and large urban areas could be greatly impacted if the scenarios of less rainfall occur, particularly during peak demand summer months. Management techniques that encourage conservation, wastewater reuse, and groundwater recharge could help reduce the seasonal variability of water supplies and reduce demands on surface water systems during the critical summer months. As the population in eastern North Carolina grows, more people will reside in flood-prone areas. Stronger policies that discourage development in floodplains and flood-prone areas and encourage stormwater management could help reduce flood risk and increase water supplies by promoting groundwater recharge.

A warmer climate and increases in human population throughout the state will likely increase demands on the state's freshwater systems and increase the amount of wastewater generated. These changes will have great implications for water quality, quantity, and the ecological health of aquatic ecosystems in North Carolina. Water is vital to human health, energy, food security, and ecosystem conservation in North Carolina. Great risks are associated with maintaining water management strategies that do not deal with the effects of the changing climate

A new focus on adaptation should guide water resources management at the watershed scale, with the goal of creating more resilient water supplies. In some cases, inter-state watershed commissions will be needed. To ensure water supply during drought cycles, adaptation measures should be taken that focus on both supply-side (conservation and pricing) and demand-side (storage and infrastructure) strategies (Bates et al., 2008). If sound adaptive management policies are not put in place, we will likely face more crises similar to those we have had to deal with during the current drought cycle. Although adaptive management cannot prevent future drought, it can help to decrease the risk of severe water shortages.

Coastal Erosion/Inlets/Barrier Island Collapse

The North Carolina coast is experiencing the highest rates of relative sea-level rise along the entire US east coast: approximately 16 inches per century based upon tide gauge records and

analyses of marsh peat (Zervas, 2004; Kemp et al., 2008). Additionally, there is growing evidence that warmer ocean temperatures are increasing the number of hurricanes that reach category 4 or 5 (Webster et al., 2005; Emanuel, 2005; Elsner et al., 2008).

Sea-level rise and storm activity are the two main processes that drive barrier island migration and coastal erosion (Riggs and Ames, 2007; Riggs and Ames, in press; Ames and Riggs, in press). Storm processes erode, transport, and deposit sand. In areas with minimal human influence, sand is transported during storms across the islands as overwash, or funneled through inlets to accumulate in flood tidal deltas, both of which allow the islands to build width and elevation in the face of rising sea level (Smith et al., 2008). Human modifications such as construction of barrier dune-ridges, hardening of shorelines, filling of newly-opened inlets, as well as construction and maintenance of highways and buildings too close to the ocean, interfere with these natural process and accelerate erosion on the ocean and estuarine side of the islands (Riggs et al., in press). The volume and movement of sand within the coastal system is finite and storm dependent. Thus human modification structures either temporarily trap sediment or change the pattern of sediment transport. These changes generally result in starving other areas of sand and thereby accelerating erosion in adjacent areas (Riggs et al., in press).

The most vulnerable barrier segments are the sediment-poor, or simple barriers (Riggs and Ames, in press; Riggs et al., in press). These island segments are most likely to undergo the most rapid island recession and will likely develop inlets in the near future. These low and narrow barrier islands (most of the Cape Hatteras and Cape Lookout National Seashores and Pea Island National Wildlife Refuge on the northern Outer Banks and the area between Onslow Beach and Carolina Beach in southeastern North Carolina) have experienced frequent inlet openings in historic times. Maps of inlet potential and past inlet locations can be accessed at the NC COHAZ Decision Portal: www.coastal.geology.ecu.edu/NCCOHAZ/maps.html.

The North Carolina Division of Coastal Management (NCDCM, 2004) ocean shoreline erosion data, based upon aerial photograph analysis from 1946 to 1998, calculates the average annual erosion rate of 1.6 feet/year (J. Warren, pers. comm., 2008) with local rates that range upwards to 15 feet/year. Riggs and Ames (2007) and Ames and Riggs (in press) analyzed historic surveys and aerial photographs of the Outer Banks from 1849 to 2003 and demonstrated a net landward recession of the ocean shoreline for the past one and a half centuries. Between Avon and Buxton the ocean shoreline has receded up to 2,500 feet over 151 years (an average annual erosion rate up to 17 feet/year). Up to 76 % of the island width in 1852 has been lost and NC Highway 12 has been moved westward four times since 1955. The highway is now immediately adjacent to the Pamlico Sound shoreline. In the urbanized area of South Nags Head, the ocean shoreline has receded up to 1,000 feet in 149 years at an average annual erosion rate up to 7 feet/year.

Increasing rates of sea-level rise and hurricane intensity will undoubtedly result in increased rates of coastal erosion and land loss, as well as increased occurrences of new inlet openings. Research at ECU suggests that a “collapse” of barrier island segments leaving vast submarine shoals is also possible (Culver et al., 2007; Riggs and Ames, in press). Collapse would result in increased wave amplitude and astronomical tidal range within the sounds, accelerated erosion of the mainland shoreline and major changes in sedimentation patterns. In addition, there would be a substantial increase in estuarine salinity that would have an effect upon water quality, nutrient

fluxes, fisheries, and aquatic ecosystems. Such a scenario is preserved in the geologic record from approximately 1000 years ago, when a ~50km section of the southern Outer Banks (Ocracoke Island and North Core Banks) collapsed, likely in response to intensified hurricane activity (Culver et al., 2007). Barrier island collapse occurred in the Gulf of Mexico in response to impacts of Hurricanes Ivan and Katrina including large sections of Dauphin Island, Alabama and Santa Rosa Island, Florida (<http://coastal.er.usgs.gov/hurricanes/katrina/lidar/dauphin-island.html>).

Ecological effects of climate change

Global climate change occurs through three main effectors: increased temperature, altered water cycle, and changes in the distribution of winds. All of these and other changes in environmental conditions can impact virtually all ecological and human systems. The severity of impact and even whether the impact is beneficial or detrimental to a particular system depends on how humans have modified the ecological systems that support them. Some examples of the complexity arising from the interactions of human, ecological, geological, climate and circulation systems (Day et al., 2008; Peterson et al., 2008; Brewer, in press) follow.

Sea-level controlled wetlands border much of the lands of eastern North Carolina and are an important resource (Riggs and Ames, 2003). Healthy marsh wetlands have maintained themselves vertically in response to sea-level rise through the combination of trapping sediments from coastal waters and production of organic matter (Brinson et al., 1995). The latter process dominates in the wetlands of the Albemarle-Pamlico Sounds. Furthermore, their maintenance has resulted from horizontal migration into the low-lying forests as their seaward edges erode away from waves and storms. But wetlands may lose area due to accelerated sea-level rise (that overcomes their ability to increase in elevation), increases in the frequency of intense storms, and natural barriers to inland migration. This loss is exacerbated if human activities or other climate features (e.g., increased temperature or drought) change the nature of production of organic matter, weaken the ability to resist erosion, or construct barriers to migration (Moorhead and Brinson, 1995; Christian et al., 2000). As area and resource quality of wetlands decrease, impacts may be felt in our fisheries, storm protection, recreational opportunities, etc (Day et al., 2008; Brewer et al., in press).

Much of the economy of eastern North Carolina depends on human activities on low-lying lands or on the water (e.g., recreation, agriculture and fisheries). Agriculture is particularly susceptible to the multiple features of global change. As sea-level rises, the ground water table may rise and ground water become more saline (Soil Conservation Service, 1984). Both of these features have already negatively impacted crop productivity in areas (e.g., Hyde County) where extensive drainage of lands was implemented during the past few centuries when sea level was lower. Higher temperatures during the growing season may stress plants, and higher temperatures in winter may decrease the die-back of crop pests, and thus require the development of new crop varieties. Droughts or simply changes in rainfall patterns may reduce yields, and more frequent storms may result in crop failure (Karentinkov et al., 2008).

EFFECTS OF GLOBAL CHANGE ON HUMANS AT THE COAST AND ON THE COASTAL PLAIN

Social Impacts of Climate Change in Eastern North Carolina

Decades of research on the social impacts and precursors of natural disasters provide insight into North Carolina's long-term challenges to prepare for and mitigate the impacts of climate change. Four issues meriting serious consideration are sketched.

First, natural “disasters” are only disastrous if they affect human populations (Mileti, 1999). This is perhaps an obvious point, yet the history of our own coast confirms it. For example, recent new inlets across Hatteras Island have been considered disasters and treated accordingly, while new inlets through the unpopulated Core Banks barely merit newspaper coverage. More broadly, the rapid coastal development boom during North Carolina's 29 year storm lull, between the active period of 1940 to 1962 (including Hazel in 1954, Donna in 1960, and the Ash Wednesday nor'easter in 1962) and the most active storm period in North Carolina history from 1991 to 2005 (Riggs and Ames, 2007), increased dramatically the social impacts and costs of current and future natural disasters (Maiolo et al., 2001) including climate change. Ongoing development and population migration trends along North Carolina's oceanic and estuarine coasts are on a direct collision course with the slow motion “disaster” of climate change (Bradley and Crawford, 2005). Every new zoning variance and building permit granted for developments in at-risk locations puts more people and property in harm's way and increases substantially the social and economic burdens passed on to our children's generation (Maiolo et al., 2001).

Second, long before Hurricane Katrina hammered the point home, research had well established that vulnerable social groups and households with less access to a full complement of material, social and informational resources were both most adversely affected by disasters, and less likely to recover fully from them (Squires and Hartman, 2006; Wisner et. al., 2003). Historically these groups tended to settle in low elevation, high risk areas undesirable to more wealthy residents (see Riggs, 2001b), and they often lack the resources to purchase insurance to protect their assets adequately. Socially and economically vulnerable groups meriting impact assessment include the elderly, those with special medical needs, and people with physical disabilities, as well as racial and ethnic minorities, the low income, women, children, and the less well educated (Fothergill et al. 1999; Riggs, 2001b; Van Willigen et al., 2003; Bateman and Edwards, 2003; Van Willigen et al., 2005).

Third, much concern with the impacts of climate change legitimately concerns the dollar amount of damages. However, as North Carolina prepares for climate change, we must no longer overlook *proportional* damages and impacts. Proportional damages refer to the extent to which one's life is disrupted by a natural disaster or other hazard and consider dollar amounts of damage relative to household income, or the value of specific losses relative to total assets (Edwards, 2000). Assume that one family suffers \$100,000 damage to a \$400,000 waterfront vacation home, while another sees their primary residence, a \$50,000 mobile home, completely destroyed. Which suffers the greater damage? In terms of *absolute dollars* and implications for insurance programs the answer is obvious. Yet, in terms of *proportional damages* the answer is equally obvious, but typically overlooked in current policy. Proportional damage, if adequately

assessed, would do a better job of predicting which households get back on track after natural disasters than simply measuring damage in absolute dollars.

Fourth, a scientifically informed and well conceived “smart growth” policy that includes robust land-use planning that cannot be undone by a multitude of individual zoning variances is desperately needed. Planning for the future, including planning for different scenarios of climate change impact will assist in solving this problem. A necessary first step requires a thorough mapping of at-risk locations (see Pilkey et al., 1998) and assessment of social impacts on those and adjacent areas under different, science-based scenarios of sea-level rise, erosion, flooding,, storm frequency and intensity. Further along, the implementation of robust, long-range land-use planning to halt, if not reverse, development in at-risk locations will do the most to mitigate future adverse impacts. The more people and businesses migrate to at-risk locations, the more bitterly contested and costly future mitigation will be. Climate change, assessments of its impact, and efforts to mitigate its effects will all lead to contention and disagreement within communities, regions and statewide. Efforts to understand the sources of disagreement, educate the public, and engage communities in crafting responses will help reduce misunderstanding and facilitate the development of workable policies (Lovelace, 2008.)

The Impact of Climate Change on Residential Development in Coastal North Carolina

Coastal development and economic activity along North Carolina’s coastline is vulnerable to risk associated with sea-level rise and coastal storms (Pilkey et al., 1998). Residential development on the coast facilitates access and enjoyment of coastal amenities and provides for leisure opportunities. High consumption value of coastal amenities inflates housing sales prices. Some homeowners choose to forego part of their consumption value and rent their homes out during part of the year. Anecdotal evidence suggests that rental revenues are an important source of income for making mortgage, insurance, and tax payments. Data from 1998 suggest that two-thirds of Dare and Brunswick County residents in the near-coastal zone rent their property at least part of the year (Landry, 2008). High property values increase economic vulnerability. It is unclear whether and to what extent lack of experience with coastal hazards or optimistic risk assessment of recent in-migrants has elevated coastal property values.

Recent property analysis indicates that the northern, low-lying part of the North Carolina coastline is comparatively more vulnerable to the effect of sea-level rise than the central or the southern part. Considering just four coastal counties (New Hanover, Dare, Carteret, and Bertie), the present value of lost property value over the next 75 years could be \$6.9 billion assuming no adaptation (Bin et al., 2007). Analysis of property values has indicated that flood zone designation and insurance premiums convey risk information to potential buyers in the coastal housing market (Bin et al., 2008a; Bin et al., 2008b). Thus, allowing premiums to reflect objective risk assessment is important in providing incentives for sound investment and mitigation decisions.

Researchers at ECU are exploring household and community hazard mitigation strategies. Analysis of historical flood insurance coverage in coastal communities suggests that slightly more than half of eligible households in the coastal zone held flood insurance in 1998 (Landry and Jahan-Parvar, 2008). A household’s decision to purchase flood insurance is not very sensitive to flood insurance price, but subsidized policyholders hold significantly more flood

insurance. Flood insurance coverage is highest in the riskiest flood zone (V-zone), is increasing in the value of the asset at risk, and is higher for households with greater income. Thus, lower income households may face more economic vulnerability due to lack of ability to purchase insurance.

Loss of beach area to coastal erosion can impose considerable economic costs on recreational users and is a constant threat to beachfront homes. Landry (2008) offers an empirical model for optimal management of barrier island beach resources. The model characterizes optimal beach width and provides a framework for planning beach erosion control projects under scenarios of constant sea level and increasing sea level and erosion.

Impacts of Climate Change on Tourism

Tourism (NCDC, 2007) is a major economic driver across all of North Carolina accounting for \$17.1 billion in travel expenditures, \$4.2 billion in payroll, \$2.5 billion in tax receipts and employing 198,900 residents. As a domestic destination, North Carolina ranks seventh in person-trip volume by state behind California, Florida, Texas, New York, Pennsylvania and Ohio and was the destination of over 358,000 international visitors in 2007 generating expenditures of \$607 million. Such tourism expenditures are measured across food service, lodging, auto transportation, public transportation, retail and recreation.

Tourism expenditures are derived from visitors whose primary travel purpose includes business, convention and conference travel; government business; leisure and holidays; and visiting family and friends; all of which are motivations for travel to North Carolina. In the 20 coastal counties, there are 1,027 businesses in the Arts, Entertainment, and Recreation Sector of tourism and 2,815 businesses in the Accommodation and Food Service Sector (Long and Hao, 2008).

Climate and weather are important criteria for choosing a tourism destination and can determine the appeal of a location in absolute terms or relative to other destinations. North Carolina's destinations have cultivated over the years a reputation for certain activities or expectations based upon the state's climate. Tourism is an industry that is particularly sensitive to weather conditions and climate fluctuation and change; this can compel businesses to shorten traditional profit-making seasons, force them to raise prices or invest in alternative business activities to help cover economic losses, and can challenge resort communities in their efforts to retain stable business activity and year-round permanent residents (Alvord et al., 2008).

The coastal economy of North Carolina is structured to support the tourist orientation and demand and thus climate change can dramatically impact economic success. Specifically, four sectors show this orientation (Kleckley, 2008):

- Construction, where more homes and businesses are being built to meet the needs of the ever-growing visitor and retiree population;
- Retail trade, ranging from souvenir shops to grocery stores;
- Real estate, renting, leasing, and selling of beach houses and second homes; and,
- Leisure and hospitality, meeting the recreation, accommodation, and food service needs of the visitors.

In addition, research by Vogelsong (2008) on the economic impact of storm-induced inlet formation estimates that should such an inlet formation occur in the Whalebone Junction area of Nags Head it would eliminate access to all of the villages in the central Outer Banks as well as access to the majority of South Nags Head. The estimated result of such an event would make some 2,838 accommodation units inaccessible with a capacity of 32,501 overnight guests for a daily loss in rentals of \$4.2 million.

Public Health and Climate Change in North Carolina

Climate change is a significant threat to the health of the public. Major concerns in North Carolina include injuries and fatalities associated with severe weather events and heat waves; increase in infectious diseases related to changes in vector biology; allergic and asthma exacerbation related to increased allergens; and increases in cardiovascular and respiratory diseases related to air pollution (Frumkin et al., 2008). If warming trends continue, there will be higher rates of climate-related illness and death in North Carolina.

The RENCI ECU Regional Engagement Center is currently working on approaches to reduce the risk of the medically fragile during coastal disasters. With a rise of global temperatures and sea level, the number of individuals at risk from flooding by coastal storm surges is predicted to more than double (Patz et al., 2005). In addition, changes in climate will lead to increases in mortality and morbidity from extreme heat. A major problem resulting from hurricanes is management of individuals with chronic disease and those considered “medically fragile”. Hurricane Andrew left 175,000 Floridians homeless and without working water systems for at least one week (Novick and Morrow, 2008). The infrastructure of the health care system was also destroyed with large numbers of hospitals, physicians and pharmacists unable to practice.

There are also concerns related to increased disease transmission secondary to changes in the number and range of vectors including pests and parasites. While more evidence is needed on the certainty of this problem, this issue is particularly important to North Carolina. Infectious agents (protozoa, bacteria and viruses) and their associated vector organisms (mosquitoes, ticks and sand flies) have reproduction and survival rates that are associated with temperature (Patz et al., 2005). The distribution of these vector borne diseases can be increased by climate changes that increase the temperature of a region. North Carolina has a number of mosquito borne illnesses of substantial importance including eastern equine encephalitis and West Nile virus. Malaria, a mosquito borne disease, plagued North Carolina from the time of the fifteenth century explorers until the early 20th century (Hayes, 1899). The mosquito vector for this disease continues to exist in North Carolina. Its reproduction, survival and range can be affected by climate change. Air travel has facilitated the importation of emerging disease into the United States. Malaria is imported into this country each year through air travel with secondary small outbreaks in regions where the mosquito vector is still present. Although individual weather events cannot be linked with climate change, the rising numbers of severe storms such as Hurricanes Katrina, Rita and Ike suggest that climate change is already a factor in the health of the public.

STRATEGIES FOR CLIMATE CHANGE ADAPTATION

Climate change is inextricably bound up in broader changes in the energy economy and financial system. North Carolina must address these changes with firm commitment to the well-being of future generations. Specifically, it must continue efforts to reduce greenhouse gas emissions; develop policies to mitigate the most dangerous effects of climate change on life, property, and the coastal environment; and assess the organization of state government to ensure that it is designed to look to the future and not simply react to rapid and potentially devastating events associated with climate change. Basic assumptions guiding our recommendations are: (1) that climate change is a reality; (2) that the energy economy is a key contributor to these changes through the emission of greenhouse gases; (3) that these changes bring potentially severe threats to life, property, and the state economy; (4) that government action is required to anticipate, plan, and mitigate the worst effects of these changes; (5) that coastal North Carolina is especially vulnerable to major economic disruption associated with climate change; and (6) that the state's institutions of higher education can make major contributions to the development and implementation of policies designed to respond to these challenges. These assumptions provide the basis for the following general recommendations:

For the State

- The Legislative Commission on Global Climate Change established in 2005 has made progress on energy issues. It has become clear, however, that the broader issue of climate change and its social impacts are far more complex and require a special initiative to complement the work accomplished by the Commission to date. Thus, the General Assembly should create and fund a separate blue ribbon Commission on Adaptation to Climate Change comprised of state and national experts with staff support provided by agency and university specialists to: (1) provide a comprehensive, critical review of initiatives taken by other coastal states to respond to climate change; (2) assess, using the best scientific information available, the costs and benefits to the citizens of North Carolina associated with various levels of response to social and economic changes stemming from climate change; and (3) prepare a state-wide strategic plan targeted at short-term (5-10 years), mid-term (25-50 years), and long term (50-100 years), using scenarios based on the best available science and recommending mitigation measures to adapt to these changes. The plan should recommend priorities for action based on the likelihood of impacts and minimizing the impacts on citizens, the economy, and ecosystems.
- North Carolina, along with Louisiana and Florida, are probably the three states most vulnerable to storms, hurricanes, and the consequences of sea-level rise. Between 1980 and 2007, North Carolina shared the impacts of between 26 and 30 individual climate and weather-related disasters, the majority of them storms, that each caused over one billion dollars in total damages (<http://www.ncdc.noaa.gov/img/reports/billion/state2007.pdf>). A storm as severe as, for example, Hurricane Katrina would have a devastating impact on the coastal land, waters, ecosystems, and the built environment of northeastern North Carolina. The Outer Banks are particularly vulnerable. Consequently, we recommend that the General Assembly initiate immediately a study based on the best available science to assess the social and economic impact of a break or breaks in the Outer Banks, and other

particularly susceptible barrier island systems, resulting from severe nor'easter or tropical storms or a powerful hurricane. Such an assessment must focus not only on the costs associated with property and infrastructure damage, but with the impact of this destruction on the state economy as it faces lost income and bears the high cost of recovery.

- The scientific foundation for adapting to changes as complex as those caused by climate change is reliable, long-term support for research, policy analysis, and coastal land management. We recommend that the General Assembly create a dedicated Coastal Adaptation Fund, through a surcharge on the North Carolina Beach Plan and other sources, to be used for, but not limited to, the following: (1) provide long-term, sustained support for research on all aspects of climate change, particularly those in the most vulnerable coastal regions; (2) purchase of land or conservation easements on at-risk portions of low-lying coastal lands; (3) design incentives for land owners for construction of ecologically beneficial erosion control structures on estuarine shorelines; (4) conduct an inventory and mapping of the state's extensive coastal, estuarine, and riverine resources, including developed and undeveloped land within the coastal margin, to enable more accurate estimates of the impacts of storms, sea-level rise, precipitation extremes on these resources and their environments; and (5) identify coastal areas especially vulnerable to threats to life and property and provide recommendations to mitigate these dangers.
- We recommend that the General Assembly commission a panel of experts to conduct a critical review and assessment of the capacity and organization of the North Carolina state government to respond to the complex, long-term issues of climate change, adaptation, and mitigation. Such a review must pay particular attention to the expertise available to agencies; interagency coordination and collaboration; the prospect of a cabinet level office of Climate Change, Adaptation, and Mitigation; and the need for additional changes in state agencies to strengthen their capacity to respond to these changes.
- Decision-makers at all levels, from the governor to county commissioners, and from teachers to business owners, require access to the best available natural, social, and policy science information available to respond prudently to climate change. The General Assembly should increase its support to the North Carolina Sea Grant program and complementary university outreach programs, to enable them to expand and strengthen significantly their advisory services to provide practical climate change adaptation information to government, business, industry, and citizens.

For the University of North Carolina System

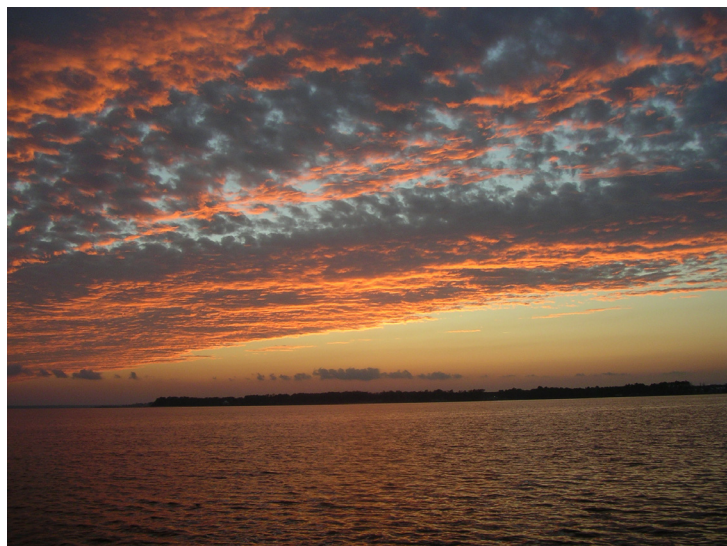
- One of the greatest resources the state can bring to bear on climate issues is the expertise available through the University of North Carolina system. In order to enlist and coordinate these resources, we recommend that the General Assembly and the UNC leadership charter a network of research institutes and centers focused on the range of topics in climate change relevant to North Carolina and accelerate development of these institutes and centers by establishing distinguished professorships in climate change,

adaptation, and policy. Such an investment will enable North Carolina to recruit the top experts in these fields to research and advise the state on these issues.

- University faculty are challenged by the need to balance efforts to advance their disciplines through research, provide excellent instruction to students at all levels, and serve their university and broader professions. University leaders must make a commitment to identify incentives for faculty to encourage and reward them for reaching beyond their disciplines and sharing their knowledge in an accessible manner with decision-makers and citizens.

CONCLUDING THOUGHTS

We live in one of the most natural disaster-prone states in the nation (along with Florida and Louisiana) with a share in 26 to 30 individual billion dollar disasters between 1980 and 2007 (<http://www.ncdc.noaa.gov/img/reports/billion/state2007.pdf>). Most of these disasters are driven by storms and relative sea-level rise, both of which are likely to increase in severity with inevitable global warming. The general responses to global climate change include both mitigation to slow it and adaptation. North Carolina alone cannot stop natural disasters from occurring but it should contribute to larger mitigation efforts. We must also anticipate future events, predict their impacts, recognize our vulnerabilities, plan our responses and adapt to the changes affecting our planet. What plans for adaptation do we have in place to address the effects of climate-related changes? What new opportunities for economic growth will these changes provide even though some of the past economic opportunities might be lost? Does North Carolina have a plan for the future as wide-ranging as Louisiana's Comprehensive Master Plan for a Sustainable Coast (<http://www.lacpra.org/index.cfm?md=pagebuilder&tmp=home&nid=24&pnid=0&pid=28&fmid=0&catid=0&elid=0>)? Clearly, the future will not be business as usual. Our plea is for far-sighted planning to address the inevitable consequences of climate change so that we do not manage our coastal resources disaster by disaster.



The Neuse estuary

REFERENCES

- Allen, M.R., and Ingram, W.J. 2002. Constraints on future changes in climate and the hydrological cycle. *Nature*, 419: 2224–2232.
- Ames, D. V. and Riggs, S.R. In press. Geomorphic framework of the North Carolina Outer Banks. U.S. Geological Survey Scientific Investigations Report, 85 p.
- Alvord, C., Long, P., Pulwarty, R. and Udall, B. 2008. Climate and Tourism on the Colorado Plateau. *Bulletin of the American Meteorological Society*, 89: 673-675.
- Arrigo, J.S. 2008. Characteristics and climate dynamics of drought in North Carolina. *Physical Geography*, in review.
- Baird, D., Christian, R.R., Peterson, C.H. and Johnson, G. 2004. Consequences of hypoxia on estuarine ecosystem function: energy diversion from consumers to microbes. *Ecological Applications* 14: 805-822.
- Baldocchi, D.D., et al. 2001. FLUXNET: A new tool to study the temporal and spatial variability of ecosystem-scale carbon dioxide, water vapor and energy flux densities, *Bulletin of the American Meteorological Society*, 82: 2415-2434
- Bateman, J.M. and Edwards, B. 2003. Why Women are more likely to evacuate for hurricanes. *Natural Hazards Review*, 3(3): 107-110.
- Bates, B.C., Kundzewicz, Z.W., Wu, S. and Palutikof, J.P., 2008. *Climate Change and Water*. Technical Paper of the Intergovernmental Panel on Climate Change, IPCC Secretariat, Geneva, 210 p.
- Bin, O., Dumas, C., Poulter, B., and Whitehead, J. 2007. Measuring the impacts of climate change on North Carolina coastal resources. Final Report to National Commission on Energy Policy.
- Bin, O., Crawford, T., Kruse, J., and Landry, C. 2008a. Viewscapes and flood hazard: coastal housing market response to amenities and risk. *Land Economics*, 84(3): 434–448.
- Bin, O., Kruse, J., and Landry, C. 2008b. Flood hazards, insurance rates, and amenities: evidence from the coastal housing market. *The Journal of Risk and Insurance*, 75(1): 63–82.
- Boyles, R.P., and Raman, S. 2003. Analysis of climate trends in North Carolina (1949-1998). *Environment International*, 29:263-275.
- Bradley, D. and Crawford, T.W. 2005. Changing coastal demographic profiles and the creation of multiple use zones. Conference on Social Science Issues, Traditional Fishing Communities: Past, Present, and Future, Greenville, NC, March 18.
- Brewer, J. F. In press. *New Directions in Climate Change Vulnerability, Impacts, and Adaptation Assessment: Summary of a Workshop*. Panel on New Directions in Climate Change, Vulnerability, Impacts, and Adaptation Assessment, Committee on the Human Dimensions of Global Change. Washington, DC: National Academies Press.
- Brinson, M.M., Bradshaw, H.D., and Jones, M.N. 1985. Transitions in forested wetlands along gradients of salinity and hydroperiod. *Journal of the Elisha Mitchell Scientific Society*, 101: 76-94.
- Brinson, M. M., Christian, R.R., and Blum, L.K. 1995. Multiple states in the sea-level induced transition from terrestrial forest to estuary. *Estuaries*, 18: 648-659.
- Christian, R.R., Rizzo, W.M., and Stanley, D.W. 1989. Influence of nutrient loading on the Neuse River estuary, NC, NOAA, National Undersea Research Program, Research Report 89-2: 19-40.
- Christian, R.R., Boyer, J.N., and Stanley, D.W. 1991. Multi-year distribution patterns of nutrients within the Neuse River Estuary, North Carolina. *Marine Ecology Progress Series*, 71: 259-274.
- Christian, R. R., Stasavich, L., Thomas, C., and Brinson, M.M. 2000. Reference is a moving target in sea-level controlled wetlands. In M. P. Weinstein and D. A. Kreeger (eds.), *Concepts and Controversies in Tidal Marsh Ecology*. Kluwer, The Netherlands, 805-825.
- Cook, E.R., Seager, R., Cane, M.A., and Stahle, D.W. 2007. North American drought: reconstructions, causes, and consequences. *Earth Science Reviews*, 8: 93-134.
- Corbett, D.R., Vance, D., Letrick, E., Mallinson, D., and Culver, S.J. 2007. Decadal-scale sediment dynamics and environmental change in the Albemarle estuarine system, North Carolina. *Estuarine, Coastal, and Shelf Science*, 71: 717-729.
- Cowart, L., Walsh, J.P., Corbett, D.R. In review. Analyzing estuarine shoreline change: A case study of Cedar Island, NC. *Journal of Coastal Research*.
- Culver, S.J., Grand Pre, C.A., et al. 2007. Late Holocene barrier island collapse: Outer Banks, North Carolina, USA. *The Sedimentary Record*, 5: 4-8.

- Curtis, S. 2006. Developing a Climatology of the South's 'Other' Storm Season: ENSO Impacts on Winter Extratropical Cyclogenesis. *Southeastern Geographer*, 46: 231-244.
- Day, J. W., Christian, R.R., Boesch, D.M., Yáñez-Arancibia, A., Morris, J.T., Twilley, R.R., Naylor, L., Schaffner, L., and Stevenson, C. 2008. Consequences of Climate Change on the Ecogeomorphology of Coastal Wetlands. *Estuaries and Coasts*, 31: 477-491.
- Douglas, B.C., Kearney, M.S., and Leatherman, S.P. 2001. *Sea Level Rise: History and Consequences*. Academic Press, San Diego, CA, 232p.
- Edwards, B. 2000. 25th Annual Workshop on Hazards Research and Applications, Plenary Presentation. "Disasters, Diversity and Equity: Disproportionate Impact and Uneven Access to Recovery Resources among Residents of Eastern North Carolina following Hurricanes Bonnie, Dennis, and Floyd." July 9-12, 2000, Boulder, CO.
- Elsner, J.B., Kossin, J.P., and Jagger, T.H. 2008. The increasing intensity of the strongest tropical cyclones. *Nature*, 455: 92-95.
- Emanuel, K., 2005. Increasing destructiveness of tropical cyclones over the past 30 years. *Nature*, 436: 686-688.
- Fothergill, A., Maestas, E.G.M., and DeRouen Darlington, J. 1999. Race, ethnicity and disasters in the United States: a review of the literature. *Disasters*, 23(2): 156-173.
- Frumkin, H., Hess, J., Luber, G., Malilay, J., and McGeehin, M. 2008. Climate change: the public health response. *American Journal of Public Health* 98(3): 435-445.
- Giffin, D. and Corbett, D.R. 2003. Evaluation of sediment dynamics in coastal systems via short-lived radioisotopes. *Journal of Marine Systems*, 42: 83-96.
- Goldenberg, S.B., Landsea, C.W., Mestas-Nunez, A.M., and Gray, W.M. 2001. The recent increase in Atlantic hurricane activity: Causes and implications. *Science*, 293: 474-479.
- Gu, G., Adler, R.F., Huffman, G.J., and Curtis, S. 2007. Tropical rainfall variability on interannual-to-interdecadal/longer-time scales derived from the GPCP monthly product. *Journal of Climate*, 20: 4033-4046.
- Hays, B.K. 1899. The continued fevers of North Carolina. Excerpt from the Transactions of the Medical Society of the State of North Carolina. Forty-sixth Annual meeting held at Asheville, NC, May/June, 1899. <http://statelibrary.dcr.state.nc.us/dimp/digital/malaria/history.html>
- Horton, B.P., Peltier, W. R., Culver, S.J., Drummond, R., Engelhart, S.E., Kemp, A., Mallinson, D.J., Thieler, E.R., Riggs, S.R., and Ames, D.V. 2008. Holocene sea-level changes along the North Carolina coastline: implications for glacial isostatic models and current rates of sea-level change. GSA Annual Meeting, Houston, October, 2008.
- Horton, B.P., Corbett, D.R., Culver, S.J., Engelhart, S.E., Himmelstoss, Kemp, A.C., Mallinson, D., Riggs, S.R., Thieler, E.R., and Willard, D.A. In Press. Holocene sea-level changes along the North Carolina coastline: implications for glacial isostatic adjustment models and current rates of sea-level change. USGS Circular.
- Holdren, J. 2008. Science and technology for sustainable well-being [AAAS Presidential Address]. *Science* 319: 424-434.
- Huntington, T.G. 2006. Evidence for intensification of the global water cycle. Review and synthesis. *Journal of Hydrology*, 319: 83-95.
- IPCC, 2007. Intergovernmental Panel on Climate Change Fourth Assessment Report: Climate Change 2007: Synthesis Report. <http://www.ipcc.ch/ipccreports/ar4-syr.htm>.
- Karetinkov, D., S. Lakhey, C. Horin, B. Bell, M. Ruth, K. Ross, D. Irani. 2008. Economic Impacts of Climate Change on North Carolina. www.cier.umd.edu/climateadaptation.
- Kemp, A., Horton, B.P., Culver, S.J., Corbett, D.R., Van De Plassche, O. and Edwards, R. 2008. Early onset of accelerated relative sea-level rise in North Carolina, USA. GSA Annual Meeting, Houston, October, 2008.
- Kleckley, J. 2008. The Outer Banks Economy. Report prepared for the Outer Banks Chamber of Commerce. Bureau of Business Research, East Carolina University.
- Knutson, T. and Tuleya, R. 2004. Impact of CO₂-induced warming on simulated hurricane intensity and precipitation: Sensitivity to the choice of climate model and convective parameterization. *Journal of Climate*, 17: 3477-3495.
- Landry, C., and Jahan-Parvar, M. 2008. Flood insurance coverage in the coastal zone. Working Paper, East Carolina University, Greenville, NC.
- Landry, C. 2008. Optimal erosion management on developed barrier island beaches. Working Paper, East Carolina University, Greenville, NC.
- Lewis, J. 1999. *Development in Disaster-Prone Places: Studies of vulnerability*. Warwickshire, UK: Practical Action Publishing.

- Long, P. and Hao, H. 2008. Report prepared through the ECU Center for Sustainable Tourism for the NE Economic Development Region on Impacts of Tourism. (Statistics from North American Industrial Classification System data, Dun & Bradstreet Sales and Marketing Solutions).
- Lorenz, P., and Jacob, D. 2005. Influence of regional scale information on the global circulation: a two-way nested climate simulation. *Geophysical Research Letters*, 32: L18706, doi:10.1029/2005GL023351.
- Lovelace, S. 2008. Environmental Decision-making in Coastal Ecosystems. Unpublished doctoral dissertation in Coastal Resources Management. Greenville, NC, East Carolina University.
- Maiolo, J. R., Whitehead, J.C., McGee, M., King, L. Johnson, J.C., and Stone, H. 2001. Facing Our Future: Hurricane Floyd and Recovery in the Coastal Plain. Coastal Carolina Press, 312p.
- Mileti, D. 1999. Disasters by Design: A reassessment of natural hazards in the United States. National Academy Press.
- Moorhead, K.K. and Brinson, M.M. 1995. Response of wetlands to rising sea level in the lower coastal plain of North Carolina. *Ecological Applications*, 5: 261-271.
- Moreau, D. 2007. What are the experts saying about effects of climate change on rainfall and streamflow in the southeast? NC Water Resources Research Institute, Raleigh, NC. 11 p.
- NCDC. 2007. Annual Report, North Carolina Division of Tourism, Film and Sports Development, 2007. North Carolina Department of Commerce, p.1.
- NCDCM. 2004. North Carolina 1998 long-term average annual erosion rate update: methods report by Benton, S.B., Bellis, C.J., Knisel, J.M., Overton, M.F., and Fisher, J.S. North Carolina Division of Coastal Management, Raleigh, NC.
- Nieto-Ferreira, R., Rickenbach, T., Guy, N., and Williams, E. 2008. Radar observations of convective system variability and interaction with African easterly waves during the 2006 AMMA IOP. *Monthly Weather Review*, In Review.
- Novick, L and Morrow, C. 2008. Public Health Administration: Principles for Population-Based Management. Jones and Bartlett, 662p.
- Overpeck, J.T. et al., 2006. Paleoclimatic evidence for future ice-sheet instability and rapid sea-level rise. *Science*, 311: 1747-1750.
- Paerl, H.W., Dennis, R.L., and Whittall, D.R. 2002. Atmospheric deposition of Nitrogen: implications for nutrient over-enrichment of coastal waters, *Estuaries*, 25: 677-693.
- Patz, J.A., Campbell-Landrum, D., Holloway, T., and Foley, J.A. 2005. Impact of Regional Climate Change on Human Health. *Nature*, 438: 310-317.
- Peterson, C. H., Barber, R.T., Cottingham, K.L., Lotze, H.K., Simenstad, C.A., Christian, R.R., Peihler, M.F., and Wilson, J. 2008. Chapter 7. National Estuaries. p. 7-1 to 7-108. In CCSP, 2008: Preliminary review of adaptation options for climate-sensitive ecosystems and resources. A Report by the U.S. Climate Change Science Program and the Subcommittee on Global Change Research. [Julius, S.H., J.M. West (eds.), J.S. Baron, L.A. Joyce, P. Kareiva, B.D. Keller, M.A. Palmer, C.H. Peterson, and J.M. Scott (Authors)]. U.S. Environmental Protection Agency, Washington, DC, USA, 873 p.
- Pilkey, O.H., Neal, W.J., Riggs, S.R., Webb, C.A., Bush, D.M., Pilkey, D.F., Bullock, J., and Cowan, B.A. 1998. The North Carolina Shore and Its Barrier Islands: Restless Ribbons of Sand. Duke University Press, Durham, NC, 319p.
- Pope, V.D. and Stratton, R.A. 2002. The processes governing resolution sensitivity in a climate model. *Climate Dynamics*, 19: 211–236.
- Rickenbach, T. M., Kucera, P., Gentry, M., Carey, L., Lare, A., Lin, R.F., Demoz, B., and Starr, D. 2008. The Relationship between anvil clouds and convective cells: A case study in South Florida during CRYSTAL-FACE. *Monthly Weather Review*, 136: 3917-3932.
- Riggs, S. R. 2001a. Shoreline Erosion in North Carolina Estuaries. Raleigh, NC: North Carolina Sea Grant, 68 p.
- Riggs, S.R. 2001b. Anatomy of a flood. In Maiolo et al. (eds.), Facing Our Future: Hurricane Floyd and Recovery in the Coastal Plain. Coastal Carolina Press, 29-45.
- Riggs, S. R. and Ames, D.V. 2003. Drowning the North Carolina Coast: Sea Level Rise and Estuarine Dynamics. Raleigh, NC: North Carolina Sea Grant, 152 p.
- Riggs, S.R., and Ames, D.V. 2007. Effect of Storms on Barrier Island Dynamics, Core Banks, Cape Lookout National Seashore, North Carolina, 1960-2001. U.S. Geological Survey, Scientific Investigations Report 2006-5309, 73 p.
- Riggs, S.R., and Ames, D.V. In Press. Barrier island evolution: conceptual model for development of the geomorphic framework of the North Carolina Outer Banks. U.S. Geological Survey Scientific Investigations Report, 80 p.

- Riggs, S.R., Ames, D.V., Culver, S.J., Mallinson, D.J., Corbett, D.R., and Walsh, J.P. In press. In the eye of a human hurricane: Oregon Inlet, Pea Island, and the northern Outer Banks of North Carolina. In J.T. Kelley, R.S. Young, and O.H. Pilkey (eds.), *Identifying America's Most Vulnerable Oceanfront Communities: A Geological Perspective*, Geological Society of America, Special Publication.
- Robinson, P.J. 2006. Implications of long-term precipitation amount changes for water sustainability in North Carolina. *Physical Geography*, 27: 286-296.
- Rocha, A.V., Su, H.-B., Vogel, C.S., Schmid, H.P., and Curtis, P.S. 2004. Photosynthetic and water use efficiency responses to diffuse radiation by an aspen-dominated northern hardwood forest. *Forest Science*, 50: 793-801.
- Schmid, H.P., Grimmond, C.S.B., Copley, F., Offerele, B., Su, H.-B. 2000. Measurements of CO₂ and energy fluxes over a mixed hardwood forest in the Midwestern United States. *Agricultural and Forest Meteorology*, 103: 355-373.
- Schmid, H.P., Su, H.-B., Vogel, C.S., and Curtis, P.S. 2003. Ecosystem-atmosphere exchange of carbon dioxide over a mixed hardwood forest in northern lower Michigan. *Journal of Geophysical Research - Atmosphere*, 108(D14), 4417, doi:10.1029/2002JD003011.
- Smith, C.G., Culver, S.J., Riggs, S.R., Ames, D., Corbett, D.R., and Mallinson, D. 2008. Geospatial analysis of barrier island width of two segments of the Outer Banks, North Carolina, USA: anthropogenic curtailment of natural self-sustaining processes. *Journal of Coastal Research*, 24: 70-83.
- Soil Conservation Service. 1984. Final environmental impact statement (West, Quarter, Double, and Bay Supplement to the Swan Quarter Watershed Work Plan), Hyde County, North Carolina. Soil Conservation Service, Raleigh, NC,
- Spruill, T.B., Harned, D.A., Ruhl, P.M., Eimers, J.L., McMahon, G., Smith, K.E., Galeone, D.R. and Woodside, M.D. 1998. Water Quality in the Albemarle-Pamlico Drainage Basin, North Carolina and Virginia, 1992-95, U.S. Geological Survey Circular 1157.
- Stahle, D.W., Cleaveland, M.K., and Hehr, J.G. 1988. North Carolina climate changes reconstructed from tree rings: A.D. 372 to 1985. *Science*, 240: 1517-151.
- Squires, G. and Hartman, C., Eds. 2006. *There is No Such Thing as a Natural Disaster: Race, Class, and Katrina*. London, Routledge.
- Van Willigen, M., Edwards, T., Edwards, B. and Hesse, S. 2003. Riding out the storm: the impact of natural disasters on people with disabilities. *Natural Hazards Review*, 3(3): 98-106.
- Van Willigen, M., Edwards, B., Lormand, S. and Wilson, K. 2005. Campus, community and the comparative effects of Hurricane Floyd and related flooding. *Natural Hazards Review*, 6(4): 180-190.
- Vecchi, G.A., Soden B.J., Wittenberg, A.T., Held, I.M., Leetmaa, A., and Harrison, M.J. 2006. Weakening of tropical Pacific atmospheric circulation due to anthropogenic forcing. *Nature*, 441: 73-76.
- Vogelsong, H. 2008. Estimating Economic Impact from Inlet Formation. Working Paper, East Carolina University, Greenville, NC.
- Wang, C.Z., and Lee, S.K. 2008. Global warming and United States landfalling hurricanes. *Geophysical Research Letters*, 35: L02708, doi:10.1029/2007GL032396.
- Webster, P.J., Holland, G.J., Curry, J.A. and Chang, H.R., 2005. Changes in tropical cyclone number, duration, and intensity in a warming environment. *Science*, 309: 1844-1846.
- Wentz, F.J., Ricciardulli, L., Hilburn, K., and Mears, C. 2007. How much more rain will global warming bring? *Science*, 317: 233-235.
- Wisner, B., Blaikie, P., Cannon, T., and Davis, I. 2003. *At Risk: Natural Hazards, People's Vulnerability and Disasters*. London, UK: Routledge.
- Zervas, C.E. 2004. North Carolina Bathymetry/Topography Sea Level Rise Project: Determination of Sea Level Trends. NOAA Technical Report NOS CO-OPS 041, May, 31p.

Appendix A: Charge from Senator Basnight



NORTH CAROLINA GENERAL ASSEMBLY
PRESIDENT PRO TEMPORE
SENATOR MARC BASNIGHT
RALEIGH 27601-2808

July 23, 2008

Erskine Bowles
President
The University of North Carolina
910 Raleigh Road
Chapel Hill, N.C. 27514

Dear Erskine:

Global warming is an issue of utmost importance to our State and the world as a whole. As you know, there's a difference of opinion among the leading scientists about global warming and the risks it may pose to the environment. A few scientists believe that concerns over global warming are unwarranted while others worry that rising levels of carbon dioxide and methane could cause a widespread, significant change in the Earth's climate, including changes in precipitation and weather patterns, more intense and frequent tropical storms and hurricanes, and an increase in sea levels.

As a coastal state, North Carolina is very vulnerable to potential impacts of climate change. Sea level rise, stronger and more frequent tropical storms, and impacts to traditional fisheries are just a few of the potential impacts I have heard about that could have a great toll on our coastal areas. We are already facing great challenges in improving the health of our fisheries, protecting ocean and soundfront property from erosion, and ensuring the continuance of traditional recreational uses of our coastal areas. In addition, as a State in which farming is a major part of our economy, culture and history, the impact that a drought may have on our farmers and on our municipal water supplies is of grave concern. We must prepare ourselves for any new challenges we could face in the coming years because of global climate change.

Our outstanding University System is one of the strongest attributes of the State. We have the country's leading research scientists scattered Statewide, including experts in climate, geology, and marine science, many of whom are already studying global climate change and its potential effects. These experts can help us learn about where we stand with respect to global climate change, and where we could be in 50 years.

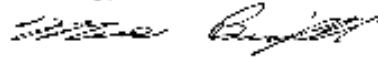
Please have the University's research scientists at the system's constituent campuses, where applicable, submit a report on global warming, including its causes, the timetable of expected effects or results, and what North Carolina and our nation as a whole can do to prevent global warming or mitigate further effects of it. Because scientists are influenced by the way they interpret data and by their broader views of the world, it is very important that the researchers at each campus do not consult with

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scientists at other campuses, but submit reports that are a result of their individual research and analyses. I also believe that each campus research team should submit its report to its chancellor for review, and that the report should be studied and openly discussed by each Board of Trustees at a regular meeting of the Board. After their review, the Trustees would formally transmit the report to the President's Office on or before December 15, 2008.

Thank you for your assistance with this matter. I look forward to reviewing the reports on global warming from our State's leading research scientists and to working on a way that North Carolina can do its part to mitigate the impact of global warming.

Sincerely,



Marc Basnight

Appendix B: Authorship and Expertise Available at East Carolina University

Authorship: This document was compiled by S.J. Culver (Geological Sciences) from contributions provided by himself and other lead authors: O. Bin (Economics), J. Brewer (Geography/Institute for Coastal Science and Policy[ICSP]), R. R. Christian (Biology), D.R. Corbett (Geological Sciences/ICSP), S. Curtis (Geography), B. Edwards (Sociology), L. King (ICSP), P. Long (Sustainable Tourism), D.J. Mallinson (Geological Sciences), L. Novick (Public Health), M. O’Driscoll (Geological Sciences), S R. Riggs (Geological Sciences), and J. Rummel (ICSP).

These lead authors consolidated information that included contributions from J. Arrigo (Geography), M. Brinson (Biology), R. Ericson (Economics), J. Kruse (Economics), C. Landry (Economics), S. Lecce (Geography), R. Nieto Ferreira (Geography), E. Reyes (Biology/ICSP), T. Rickenbach (Geography), R. Spruill (Geological Sciences), H-B. Su (Geography), J.P. Walsh (Geological Sciences/ICSP).

Climate change/coastal-related expertise of ECU faculty members:

- Derek Alderman: Coastal cultural heritage, tourism, and interpretation.
- Tom Allen: GIScience, climate change and coastal geography.
- Jennifer Arrigo: Atmospheric science, hydrometeorology, land-atmosphere interactions.
- Lawrence Babits: maritime archaeology
- Okmyung (Paul) Bin: Property market vulnerability; economic modeling of coastal resources.
- John Bishop: Economic welfare of vulnerable populations; impact of tropical storms on poverty.
- Amy Blizzard: Coastal and environmental planning, shoreline access.
- Jason Bond: Impact of climate change on arthropod biodiversity in the coastal plain.
- Jennifer Brewer: Human-environment relations, marine and coastal policy, fisheries management.
- Mark Brinson: Effects of rising sea level on coastal marshes and freshwater forested wetlands.
- Robert Christian: Coastal observing systems; disturbance and stress on coastal wetlands.
- Lisa Clough: Climate change and Arctic marine and human communities in the Arctic.
- D. Reide Corbett: Biogeochemistry and coastal processes.
- Tom Crawford: Coastal geography, population, communities; GIScience.
- Scott Curtis: Climate variability and global precipitation; hurricanes and extratropical storms.
- Stephen Culver: Reconstruction of past environmental change, including sea level.
- Hal Daniel III: Reduction of carbon footprint through entomophagy.
- David Edgell: Sustainable tourism management.
- Bob Edwards: Organizations, political sociology, social movements, environment.
- Rick Ericson: Environmental policy, climate change and natural hazards.
- Charles Ewen: Historical archaeology in the coastal plain; public archaeology.
- Joseph Fridgen: Outdoor recreation, natural resources management.
- Paul Gares: Aeolian and coastal geomorphology, and environmental management.
- James Gibson: Hazards associated with exposure to marine toxins.
- David Griffith: Coastal heritage; workforce and community change; fisheries management.
- Jeffrey Johnson: Climate change impacts on marine and human communities in the Arctic.
- David Kimmel: Response of estuarine, coastal and marine systems to climate change.
- Lauriston King: Marine policy; coastal resources management; science in public policy.
- Jamie Kruse: Human and economic response to natural hazards and climate change.
- Craig Landry: Coastal property market and policy, recreation demand and environmental quality.
- Scott Lecce: Fluvial geomorphology, surface-water hydrology, water resources.
- Patrick Long: Impacts of climate change on tourism.
- Joseph Luczkovich: Estuarine living resources; acoustical applications in fisheries ecology.
- David J. Mallinson: Coastal geology/geophysics; climate change and sea-level rise.

- William Mangun: Environmental and coastal policy at the local, state, federal levels.
- Dan Marcucci: Coastal and environmental planning.
- Richard Miller: Remote sensing of coastal environments.
- Rosana Nieto Ferreira: Climate Variability and Prediction, Tropical Meteorology.
- Lloyd Novick: Public health and climate change.
- Michael O’Driscoll: Land-use effects on hydrological processes in the Coastal Plain.
- Anthony Overton: Marine, coastal, and estuarine fisheries; fisheries management.
- Michael Palmer: Maritime history.
- Enrique Reyes: Coastal ecosystem response to climate change; ecosystem management.
- Nathan Richards: maritime archaeology, ship graveyards, the archaeology of harbors.
- Tom Rickenbach: Radar and satellite meteorology; tropical meteorology.
- Stanley R. Riggs: Origin and evolution of coastal systems and the continental shelf.
- Bradley Rogers: Nautical archaeology.
- Roger Rulifson: Fisheries population dynamics, migration, and management.
- John Rummel: Human-maritime environment interactions.
- Timothy Runyan: Maritime history; cultural resources management; national marine sanctuaries.
- Catherine Smith: Policy and risk communication; communication of science for policy.
- Mark Sprague: Application of acoustical techniques for fisheries assessment and management.
- Richard Spruill: Coastal plain water resources.
- David Stewart: Maritime archaeology of the Age of Sail.
- Hong-Bing Su: Meteorology, agricultural and forest meteorology, carbon and water cycles.
- Hans Vogel song: coastal zone recreation.
- J.P. Walsh: Coastal geological processes and global change.
- Terry West: Coastal and estuarine ecology.
- Yong Wang: GIScience; mapping shoreline change through remote sensing.
- Lester Zeager: Economic welfare of vulnerable populations; impact of tropical storms on poverty, income inequality and employment.



Currituck Sound