General Information Template for Academic Program Review

Degree Area and Level:

B.S. in Applied Atmospheric Science (CIP 40.0499) at East Carolina University

Addressing UNC Tomorrow:

This proposed program would address several Recommendations within the UNC Tomorrow Report including the components to enhance our Global Readiness (Recommendation 4.1), Our Communities and Their Economic Transformation (Recommendation 4.4), Our Health (Recommendation 4.5), and Our Environment (Recommendation 4.6).

Role of Program in Relation to State and Regional Needs:

According to the proposal, "The program in applied atmospheric sciences will enhance technology competencies and help the region's prosperity. First, there has been a rapid increase in high technology in the atmospheric sciences. For example, multiple satellite missions and other remote sensing technologies have increased our ability to observe weather and climate change globally, opening up new geographic perspectives. The proposed degree will be at the forefront of these technologies, transforming the way they are being used through the emerging role of geographic information science. Second, the region is highly vulnerable to hurricanes, floods, droughts, and other natural disasters. The program will focus on meteorological hazards, enhancing both basic and applied hazards research at ECU. This new knowledge can be transferred to mitigation strategies that will impact the economic stability of eastern North Carolina, especially in times of hazardous weather. Such regional, state, and national capacity is especially relevant to infrastructure, utilities, transpiration services, medical services, insurance, agriculture, and tourism among others."

US Labor Department Analysis:

- *Summary* – Employment of atmospheric scientists is projected to grow 11 percent over the 2006-16 decade, about as fast as the average for all occupations. The National Weather Service has completed an extensive modernization of its weather forecasting equipment and finished all hiring of meteorologists needed to staff the upgraded stations. The Service has no plans to increase the number of weather stations or the number of meteorologists in existing stations. Employment of meteorologists in other Federal agencies is expected to decline. In private industry, on the other hand, job opportunities for atmospheric scientists are expected to be better than in the Federal Government. As research leads to continuing improvements in weather forecasting, demand should grow for private weather consulting firms to provide more detailed information than has formerly been available, especially to climate-sensitive industries. http://www.occsupplydemand.org/OSD_UnitOfAnalysis.aspx?CLUSCODE=098A-15&ST=NC&PathNo=1

- *Summary Data* – Source: U.S. Department of Labor and America's Career InfoNet

Occupational Characteristics - North Carolina				
SOC Code	Occupation	Minimum Educ Level	2006-2016 Growth	2008 Wages
19-2021	Atmospheric and Space Scientists	Bachelor's degree	Little or no change	$86,160

Occupational Projections - North Carolina							
		Employment			Average Annual Openings		
SOC code	Occupation	Est 2006	Proj 2016	Change	Growth	Replace	Total
19-2021	Atmospheric and Space Scientists	158	171	8.2%	1	4	5

Wage Trends - North Carolina							
		Median Annual Wage					Change
SOC Code	Occupation	2004	2005	2006	2007	2008	2004 to 2008
19-2021	Atmospheric and Space Scientists	$80,390	$85,380	$85,620	$85,630	$86,160	7.2%

Benchmarks for Wage Trends (all occupations)	2004	2005	2006	2007	2008	Change 2004 to 2008
North Carolina Median Wage	$26,690	$27,160	$27,980	$28,950	$29,860	11.9%
North Carolina Mean Wage	$33,960	$34,460	$35,520	$36,900	$38,230	12.6%
National Median Wage	$28,770	$29,430	$30,400	$31,410	$32,390	12.6%
National Mean Wage	$37,020	$37,870	$39,190	$40,690	$42,270	14.2%

Availability of Program Statewide (Enrollment and Degrees Awarded in Last 3 Years):

- *Public universities* – Not available.
- *Private universities* – Not available.

Available or not from Academic Common Market:

North Carolina does not participate in the ACM at the undergraduate level.

ECU Campus enrollment and degrees awarded in similar programs at the Bachelors level:
(Based on two CIP digits – 40 CIP is the summary group for Physical Sciences under which Applied Atmospheric Science is a program)

Enrollment			Academic Year						
			Fall 05	Spr 06	Fall 06	Spr 07	Fall 07	Spr 08	Fall 08
ECU	Chemistry	BA	30	39	31	31	33	32	28
		BS	17	19	17	26	22	25	30
	Geology/Earth Science	BS	19	15	12	18	21	23	19
	Physics	BA	1	0	0	0	0	1	1
		BS	10	11	12	10	5	7	7
		BSAP	3	5	4	5	3	2	1

Number of Degrees Awarded			Academic Year		
			2005-2006	2006-2007	2007-2008
ECU	Chemistry	BA	19	15	20
		BS	8	7	4
	Geology/Earth Science	BS	6	10	4
	Physics	BA	0	0	0
		BS	2	5	3
		BSAP	2	2	1

Campus Average of enrollment and degrees awarded in this degree area at the Bachelors level:
(*Based on two CIP digits – 40 CIP is the summary group for Physical Sciences under which Applied Atmospheric Science is a program - over the last 3 Academic Years, Fall 2005-Fall 2008)*

Campus Average			
	Number of Active Programs	Enrollment per Semester	Degrees Awarded per Year
ASU	3	55	16
ECSU	4	7	2
ECU	3	28	12
FSU	1	17	6
NCA&T	2	21	4
NCCU	2	20	4
NCSU	5	65	32
UNC-A	3	23	10
UNC-C	4	54	14
UNC-CH	4	90	30
UNC-G	2	26	5
UNC-P	2	36	16
UNC-W	3	56	20
WCU	2	28	11
WSSU	1	31	6
Campus Average:		37	13

ECU Campus Degree Programs added in the past three years:

- *Bachelor*
  - BA African and African American Studies (02/09/2007)
- *Master*
  - N/A
- *Doctoral*
  - AuD Audiology (06/13/2008)
  - DDS Dentistry (11/10/2006)

ECU Degree Programs discontinued in past three years:

- *Bachelor*
  - BS Marketing Education (03/20/2009)
  - BS Physician Assistant (11/01/2006)
  - BS Accounting (08/14/2009)
- *Master*
  - MM Music Therapy (03/20/2009)
  - MPT Physicial Therapy (06/08/2007)
  - EdS Counselor Education – Intermediate Degree (03/20/2009)
  - CAS Library Science – Intermediate Degree (03/20/2009)
- *Doctoral*
  - N/A