General Information Template for Academic Program Review

Degree Area and Level:

Master of Science in Nanoengineering at North Carolina A&T State University (CIP 14.9999)

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 University's Outreach and Engagement (Recommendation 4.7).

Role of Program in Relation to State and Regional Needs:

According to the proposal this degree program, "Nanoengineering is an evolving field for the 21st century, a discipline that drives many engineering and science activities, the impact and associated technologies that will draw the industries of future growth as well as draw most creative minds. The educational programs of JSNN and the Masters and Ph.D. program in nanoengineering will drive the associated knowledge based economy."

US Labor Department Analysis:

- *Summary* – Overall engineering employment is expected to grow by 11 percent over the 2006-16 decade, about as fast as the average for all occupations. Engineers have traditionally been concentrated in slower growing or declining manufacturing industries, in which they will continue to be needed to design, build, test, and improve manufactured products. However, increasing employment of engineers in faster growing service industries should generate most of the employment growth. Job outlook varies by engineering specialty.
  Source: http://www.occsupplydemand.org/OSD_UnitOfAnalysis.aspx?CLUSCODE=024A-05&ST=NC&PathNo=1

- *Summary Data* – N/A

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: Not available

NC A&T State University Campus enrollment and degrees awarded in similar programs at the Masters level:

(*Based on two CIP digits – 14 CIP is the summary group for Engineering under which Nanoengineering is a program.)*

Enrollment			**Academic Year**						
			Fall 06	Spr 07	Fall 07	Spr 08	Fall 08	Spr 09	Fall 09
NCA&T	Chemical Engineering	MS	10	11	10	10	16	19	20
	Civil Engineering, General	MS	32	27	28	24	27	38	40
	Electrical and Electronics Engineering	MS	56	61	47	38	44	46	40
	Mechanical Engineering	MS	25	30	23	19	28	17	18
	Industrial Engineering	MS	38	43	42	36	48	39	36
	Engineering, Other	MS	13	11	11	10	12	11	17

Number of Degrees Awarded			Academic Year		
			2006-2007	2007-2008	2008-2009
NCA&T	Chemical Engineering	MS	5	5	2
	Civil Engineering, General	MS	17	13	11
	Electrical and Electronics Engineering	MS	26	22	22
	Mechanical Engineering	MS	5	11	8
	Industrial Engineering	MS	14	8	20
	Engineering, Other	MS	6	10	2

Campus Average of enrollment and degrees awarded in this degree area at the Masters level:
(*Based on two CIP digits – 14 CIP is the summary group for Engineering under which Nanoengineering is a program - over the last 3 Academic Years, Fall 2006-Fall 2009)*

Campus Average			
	Number of Active Programs	Enrollment per Semester	Degrees Awarded per Year
ECU	1	14	Degree established by BOG in 2006 – No graduates yet
NCA&T	6	28	12
NCSU	15	64	25
UNC-CH	1	5	3
UNCC	4	48	21
Campus Average:		32	15

NCA&T Degree Programs added in the past three years:

- *Bachelor*
  - BS Motorsports Technology (11/05/2010)
  - BS Bioengineering (06/11/2010)
  - BS Atmospheric Sciences and Meteorology (11/09/2007)
- *Master*
  - MS Bioengineering (06/11/2010)
  - MS Information Technology (09/07/2007)
- *Doctoral*
  - Ph.D. Computational Science and Engineering (01/08/2010)

NCA&T Degree Programs discontinued in past three years:

- *Bachelor*
  - BS Visual Arts, Art Education (03/20/2009)
  - BS Music Education (03/20/2009)
  - BS Romance Languages and Literatures, French Secondary Education (03/20/2009)
  - BS Romance Languages and Literatures, Spanish Secondary Education (03/20/2009)
- *Master*
  - MS English Education (03/20/2009)
  - MS Mathematics Education (03/20/2009)
  - MS History Education (03/20/2009)
- *Doctoral*
  - N/A