

Request for Authorization to Establish a Bachelor of Science in Motorsports Technology at NC A&T State University

NC A&T State University requests authorization to establish a Bachelor of Science in Motorsports Technology (CIP 15.0612).

Program Description

The proposed Motorsports Technology program is a technical and management course of study intended to prepare motorsports professionals to meet the human resource needs of corporate sponsors, team owners, track facilities, and product/service support suppliers. The program will teach students the basic knowledge and skills necessary to perform pit motorsports activities in a real world application. Students are taught rules and regulations of several sanctioning bodies, motorsports demographics, and the interdisciplinary involvement of technology, engineering, management, marketing, communications, and graphic design in motorsports. High performance physiology is taught to enhance the student's mental and physical capabilities and endurance that are necessary in motorsports. Vehicle dynamics and system controls are taught to acquaint the student with the cause and effect of system changes.

UNC Tomorrow Relevance

This degree program addresses several recommendations in the UNC Tomorrow Final Report including 4.1 Our Global Readiness, 4.4 Our Communities and Their Economic Transformation, and 4.7 Our University's Outreach and Engagement.

Highlights from UNC-GA Data Template

NCA&T has high undergraduate enrollments in its technology programs. In the last three years, NCA&T has added two baccalaureate, two master's, and one doctoral program and has discontinued four baccalaureate and three master's programs.

Outcome of Consultation with Disciplinary Panel

Faculty from Winston-Salem State University participated in the panel discussion with NCA&T and UNC-GA representatives. Topics covered included: management-related courses in the curriculum, possible collaboration with the WSSU Motorsports Management program, community college feeder programs, and possibilities for external support from the motorsports industry. The WSSU and proposed NCA&T programs are different in their focus with WSSU having more of a focus on business and management and NCA&T having more of a focus on technology.

Student Demand

In 2004 a Motorsports concentration was added in the Department of Manufacturing Systems, which currently has 50 students enrolled who would probably enroll in the Motorsports Technology program. The program will improve the recruitment of students from community college programs and local industries and businesses. By the fourth year of the program, it is anticipated that the program will have upper division enrollments of 75 majors.

Opportunities for Graduates of the Program

North Carolina is home to 90 percent of NASCAR teams and over 1,000 motorsports-related teams, tracks, businesses, and educational institutions. According to the NC Motorsports Association, the motorsport industry has an economic impact of over \$5 billion to North Carolina with over 24,000 direct and indirect jobs related to motorsports. Jobs created by the motorsports industry are generally well paying, with average direct compensation over \$70,000 a year.

Resource Implications

Resource needs: In addition to current faculty, one additional position will need to be added in about three years as enrollments in the program grow. Current facility space, library resources, and technology infrastructure are sufficient.

Resources allocated: The Department of Manufacturing Systems has hired an additional faculty member to teach in this program. The Department is communicating with various motorsports organizations to investigate possibilities for financial support, and motorsports will be a focus of the School of Technology's fund raising campaign.

Estimated cost to the State: Based on the University funding formula, when the program reaches full enrollment, NCA&TSU would receive additional State appropriations of approximately \$167,700 if fully funded by the General Assembly.

Recommendation

It is recommended that the Board of Governors approve NCA&TSU's request to establish a Bachelor of Science in Motorsports Technology (CIP 15.0612) subject to the availability of funding.

General Information Template for Academic Program Review

Degree Area and Level:

BS in Motorsports Technology at North Carolina A&T State University (CIP 15.0612)

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 Citizens and Their Future: Access to Higher Education (Recommendation 4.2), Our Communities and Their Economic Transformation (Recommendation 4.4), and Our University's Outreach and Engagement (Recommendation 4.7).

Role of Program in Relation to State and Regional Needs:

According to the North Carolina Motorsports Association website (<http://www.motorsportsonc.org/>), the motorsport industry has an economic impact of \$6 Billion to the State of North Carolina with over 25,000 direct and indirect jobs related to motorsports in North Carolina. North Carolina is the home to 90% of NASCAR Teams and over 1,000 motorsports related teams, tracks, businesses, and educational institutions.

In February 2010, Governor Perdue established the Governor's Motorsports Advisory Council and its assigned duties are to, "recommend policy, procedures and program initiatives to protect, strengthen and expand the motorsports industry in North Carolina; provide ongoing advice and consultation to State policy leaders as to how to recruit, retain and expand the motorsports industry in North Carolina; conduct public hearings or input sessions regarding the motorsports industry when deemed necessary or beneficial; encourage support for the motorsports industry and serve as a resource for the industry to the North Carolina General Assembly and State departments and agencies; and perform such other duties as assigned by the Governor or the Chair."

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

- Public universities – N/A
- Private universities – N/A

Available or not from Academic Common Market: N/A

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

(Based on two CIP digits – 15 CIP is the summary group for Engineering Technologies and Engineering-Related Fields under which Motorsport Technology is a program.)

Enrollment			Academic Year						
			Fall 06	Spr 07	Fall 07	Spr 08	Fall 08	Spr 09	Fall 09
NCA&T	Electrical and Electronic Engineering Technologies/Technicians, Other	BS	165	152	160	154	172	165	150
	Industrial Technology/Technician	BS	40	38	49	52	62	59	42
	Engineering Technologies and Engineering-Related Fields, Other	BS	31	28	49	46	55	65	62

APPENDIX R

Number of Degrees Awarded			Academic Year		
			2006-2007	2007-2008	2008-2009
NCA&T	Electrical and Electronic Engineering Technologies/Technicians, Other	BS	41	35	55
	Industrial Technology/Technician	BS	11	8	20
	Engineering Technologies and Engineering-Related Fields, Other	BS	12	14	21

Campus Average of enrollment and degrees awarded in this degree area at the Bachelors level:
(Based on two CIP digits – 15 CIP is the summary group for Engineering Technologies and Engineering-Related Fields under which Motorsport Technology 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
ASU	4	33	15
ECU	4	223	70
ECSU	2	18	11
NCA&T	3	86	24
NCSU	1	60	19
UNCC	4	99	25
WCU	3	107	37
Campus Average:		89	29

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

- *Bachelor*
 - BS Atmospheric Sciences and Meteorology (11/09/2007)
 - BS Bioengineering (06/11/2010)
- *Master*
 - MS Information Technology (09/07/2007)
 - MS Bioengineering (06/11/2010)
- *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