

## APPENDIX M

### **Request for Authorization to Establish a Master of Science Degree in Physics at North Carolina Central University**

#### **Introduction**

North Carolina Central University notified UNC-GA of its intent to plan an MS in Physics degree (CIP 40.0801) in July 2006. NCCU requests authorization to establish the degree effective August 2007.

#### **Program Description**

The MS in Physics will have an emphasis on computational physics, experimental nuclear physics, materials science, and nanotechnology, all of which are areas of strength at NCCU. The degree will require 30 graduate credit hours, 18 of which must be in physics courses. Students preparing for a PhD program will be strongly advised to complete additional credit hours in physics or topical courses in other departments such as Chemistry, Mathematics, Biology, and Computer Science. The graduate research program in physics will play an important role in the interdisciplinary science research and teaching programs evolving at NCCU.

#### **Program Need**

There is a national need for strong graduate physics programs at minority universities. An advanced degree program in computational physics is not available at any university in NC, and a graduate physics program would enable NCCU to compete for many federal grants programs that are limited to graduate level programs. The Department of Physics has strong collaborations with the NCSU semiconductor group, the Triangle Universities Nuclear Laboratory, TUNL, the UNC-CH Raman spectroscopy laboratory, and NC Micro Electronics. Additional collaborations and financial support exist with a number of national and international laboratories and agencies. The department has identified student demand both from current and former NCCU students and other students nationally and internationally.

#### **Resources**

Two additional faculty have been hired in the department in the last year, and two more adjunct faculty have been hired. NCCU is supporting the program with \$70,000 a year for equipment, and eight faculty have substantial grant funding that would help support graduate students. The department has relocated in the new science complex, which provides very adequate classroom, laboratory, and computer facilities. Collaborations with other universities and laboratories in the region also provide additional research and teaching space.

#### **Recommendation**

It is recommended that the Board of Governors approve the NCCU request to establish the MS in Physics degree (CIP 40.0801) effective August 2007.