

APPENDIX I

Request for Authorization to Establish a Bachelor of Science in Meteorology The University of North Carolina at Charlotte

Introduction

The University of North Carolina at Charlotte notified the Office of the President of its intent to plan a Bachelor of Science degree in Meteorology (40.0404) in April 2004.

Program Description

The proposed Bachelor of Science in Meteorology will prepare meteorologists for several areas which include the United States Air Force, TV forecasting, and the National Weather Service. The Meteorology major comprises 69 hours in Earth Sciences, Geology, Mathematics, Chemistry, Physics, Engineering courses, and seven hours in elective Earth Sciences courses. This program contains the coursework necessary for certification from the American Meteorological Society. The proposed degree program in meteorology will be housed in the Department of Geography and Earth Sciences, along with the Bachelor of Science in Earth Sciences, Bachelor of Science in Geography, and the Bachelor of Science in Geology.

Program Need

The Charlotte media area is the largest North Carolina market for employing meteorologist in forecasting. It is home to three major clients of weather forecasting: Charlotte-Douglas International Airport, Duke Energy, and the combined media (television and radio) of Charlotte. Graduates of the program will be prepared for these job markets, as well as for entry-level jobs in the National Weather Service and for graduate study in meteorology or climatology. The Air Force ROTC has expressed the need for a meteorology program at UNC Charlotte. Further, several industries in the Charlotte region are weather-sensitive and have expressed their need for in-house meteorologists. Additionally, many enrolled and prospective students inquire about a degree program in Meteorology. The Bachelor of Science in Meteorology would strengthen the existing degree programs in the Department of Geography and Earth Sciences. In the next four years, it is projected that there will be 12 majors.

Feedback from constituent university

The Office of the President's program review process allows for feedback from constituent UNC campuses. Faculty from North Carolina State University furnished feedback on UNCC proposal to establish the Bachelor of Science degree in Meteorology. While acknowledging that there might be student demand for the proposed B.S. degree in meteorology, NCSU maintains that there is 1) a limited demand for graduates in North Carolina, in a specialized job market, 2) a limited number of faculty specialists with research in the field, and 3) costly faculty, administrative, and computer infrastructure needed to conduct a quality program. NCSU maintains that the proposed program would be "an expensive and unnecessary duplication of existing programs at NCSU and Asheville, and would have a negative impact on these programs."

UNC Charlotte responded that the meteorology degree is an extension of previous efforts to develop applied programming in the Department of Geography and Earth Sciences, and the degree program in meteorology responds to calls for such programming within the Charlotte urban region. UNC Charlotte views that their proposed program complements the programs at NC State and UNC-Asheville. UNC Charlotte has an established internship program with three major television stations in Charlotte, Duke Energy, the national Weather Service in Greenville-Spartanburg, and Mecklenburg County Air Quality. These internship opportunities also represent potential employment opportunities for students. Further, UNC Charlotte believes that there will

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be an increase in the number of meteorology positions in North Carolina in the future. The fields of air pollution and tropical meteorology, which have significant societal impacts, are likely to grow in the future. Regarding the availability of quality faculty, UNC Charlotte responds that they do not foresee a scarcity of Ph.D. meteorologists. A recent advertisement for a meteorologist faculty member at UNC Charlotte produced 50 qualified applicants. UNC Charlotte affirms that research interests of faculty who will be teaching in the proposed meteorology program do not appear to overlap with the interests of faculty at UNC Asheville or NCSU. The research interests of UNC Charlotte faculty lend themselves to improved town-gown connections and regional initiatives.

UNC Charlotte states that they are clearly appealing to a different clientele and that the proposed degree in meteorology is warranted by demand surfacing from within the Charlotte Urban Region with a population of approximately 1.7 million residents. According to UNC Charlotte, the proposed degree program is necessary for the U.S. Air Force Reserve Officer Training Corps. UNC Charlotte has a long tradition of preparing students to enter the U.S. Air Force forecasting school. They have strong relationships with the American Meteorological Association, meteorologists in the region, and the three major television stations in the area.

Regarding the expensive infrastructure for the proposed degree program, UNC Charlotte states that they will take advantage of the substantial computer resources that already exist on campus for the geography and earth sciences program and the GIS program. Additionally, new meteorology resources will be employed that are available on the Internet to minimize the expense of the proposed degree in meteorology. The Geography and Earth Sciences Department is currently requesting a new technician to maintain new scientific equipment that supports the department, as well as the new proposed degree program. The need for this position would exist without the new proposed degree program.

The Office of the President has reviewed the comments from NCSU and UNC Charlotte, and it believes that UNC Charlotte has addressed the concerns of NCSU.

Resources

There are two meteorology/atmospheric science faculty in the department. Future hiring by the Department of Geography and Earth Sciences will address the need for an expanded atmospheric science full-time faculty. The proposed degree program in meteorology will, for the most part, use courses that are already in existing programs. With the addition of four new courses, the new program will allow students to study meteorology in a more rigorous manner. Meteorology courses will share teaching space with other Earth Science and Geology courses. No new equipment is required at this time. An existing computer lab for geography and earth science students that also supports the GIS program will be available for meteorology majors. UNC Charlotte is developing a weather observation station for certification by the National Weather Service.

Recommendation

It is recommended that the Board of Governors approve the request to establish the Bachelor of Science in Meteorology at The University of North Carolina at Charlotte effective September 2004.