A History of the College of Science and Technology

The College of Science and Technology was founded in August 2006 when the College of Arts and Sciences was restructured into three undergraduate colleges: the College of Liberal Arts, the College of Science and Technology (CST), and the College of Social Sciences and Behavioral Studies (later renamed the College of Behavioral and Social Sciences). The former Dean of the College of Arts and Sciences, Dr. Caesar R. Jackson, was named the first Dean of the College of Science and Technology. The College began its inaugural year under the leadership noted below:

Dr. Caesar R. Jackson, Dean
Dr. Alade Tokuta, Associate Dean*
Ms. Mary Brinson, Executive Assistant, Office of the Dean

Biology - Dr. Amal Abu-Shakra, Chair
Chemistry - Dr. Wendell W. Wilkerson*, Chair
Environmental, Earth and Geospatial Sciences - Dr. Yolanda Banks Anderson, Chair
Mathematics/Computer Sciences - Dr. Russell Gosnell*, Chair
Physics - Dr. Branislav Vlahovic*, Chair

*Denotes Interim appointments.

During the process of organizing the new College of Science and Technology, the Environmental Science program was merged with the Department of Geography and Earth Sciences and renamed the Department of Environment, Earth, and Geospatial Sciences. Dr. Yolanda Banks Anderson was named Chair of this department. Also at this time the graduate components for the units in the former College of Arts and Sciences were consolidated under the direction of the School of Graduate Studies.

The College of Science and Technology (CST) promotes North Carolina Central University's commitment to excellence in instruction, research, service, and entrepreneurship. Through its culturally diverse faculty, staff, students, and alumni, the CST cultivates an interdisciplinary and comprehensive learning environment for our science community by:

Preparation undergraduate and graduate students through engaging course work, experiential learning and intensive training in basic, applied, or pedagogical research;
Fostering computational and technological literacy, critical analysis and analytical thinking;
Developing hands-on and literature-based research skills for independent learning and effective communication of scientific ideas through writing and presentation; and
Encouraging students, faculty and staff to interact in a motivating and evolving research and learning community, developing essential skills for productive careers as scientists, academicians, and professional leaders.

VISION

The College of Science and Technology (CST) will harness its substantial intellectual resources to be a leading educator of underrepresented and underserved populations of undergraduate and graduate students in the sciences and technology by providing a strong, competitive, well-supported environment for teaching and research.

Major Accomplishments of Unit over Past Three Years

Faculty and students in the College of Science and Technology continue to make significant contributions to the intellectual climate at North Carolina Central University and throughout the local, state, and national community. Students in the College have participated in over 140 professional development activities and have contributed over 20,000 hours of community service. In 2006-07, the College of Science and Technology faculty actively served the Durham Public Schools. CST faculty delivered instruction to high school students at Southern High School, Durham Public Schools, when the school faced a dire shortage of teachers for its mathematics, science and Career Technical Education (CTE) disciplines. Teaching faculty followed the North Carolina Standard Course of Study for these courses and provided these students access to qualified teachers in various Science, Technology, Engineering, and Mathematics (STEM) disciplines where there are national and state shortages. The faculty has provided professional service on over 39 panels and committees for state, regional, national, and international organizations. Faculty also provided public service on 44 community projects, advisory boards, and other engagements. In addition, the faculty continues to be a major generator of externally funded contracts and grants for the university.

Recent and Planned Degree Programs in CST

1. A new degree program, the Master of Science in Computer Science, was approved by University of North Carolina General Administration (UNC GA) in 2005 and began accepting students in fall of 2006.

2. A new degree program, the Master of Science in Physics, was approved by UNC GA in 2006 and began accepting students in fall 2007.

3. The graduate program in Computer and Information Science to be delivered via distance education was approved by UNC GA in May 2008.

4. UNC GA awarded Focused Growth Program Funding to the College of Science and Technology for the fiscal period 2005-2008 for planning a Master of Science Degree in Computational Science. This program is being designed as a multidisciplinary degree program involving all College of Science and Technology departments. The training will involve the use of modern computing facilities and appropriate computational methodologies in studying and modeling complex problems in science, engineering and/or economics, and other disciplines.

5. The Department of Mathematics and Computer Science has submitted plans for an undergraduate degree program in Computer Information Sciences (CIS) online and on campus to the UNC General Administration. CST anticipates collaboration with the university’s Biomanufacturing Research Institute and Technology Enterprise (BRITE) in the development of online courses offered jointly between CST and the BRITE program as well as development of the proposed Ph.D. in Biopharmaceutical Sciences.

Enhancing the Intellectual Climate

Initiatives are underway to increase the intellectual climate within the College and University and have increased our visibility as we seek to expand collaborations locally, nationally, and internationally.

1. CST is currently involved in a partnership with the School of Education geared to increasing the number of educators in mathematics and comprehensive science licensure.

2. The departments of Biology, Chemistry, and Physics developed and began offering Biopharmaceutical Science (BRITE) concentrations as a part of their degree offerings in 2005. The College anticipates collaborations with BRITE in the development of on-line courses offered jointly between CST and the BRITE program and joint development of the Ph.D. in Biopharmaceutical Sciences.
3. CST recently signed a Memorandum of Understanding with Boston University geared to early admission of Pre-Medicine majors and to continue to offer service courses to pre-nursing majors.

4. Faculty members from the departments of Mathematics and Computer Science and Environmental, Earth and Geospatial Sciences traveled to Ethiopia in summer 2007 with the purpose of expanding teaching and research collaborations. This summer (2008), two faculty members from Ethiopian universities visited NCCU to participate in workshops on campus. This semester, two students from Ethiopia enrolled as graduate students in the Department of Mathematics and Computer Science. One student is a graduate of Mekelle University and the other is a graduate of Mekelle Institute of Technology. A larger NCCU faculty group is developing plans for activities in the areas of faculty exchange, student exchange, and distance learning.

5. The Department of Environmental, Earth and Geospatial Sciences collaborated with the community and the US Environmental Protection Agency on a multi-year environmental monitoring project using the community-based participatory research model (2001-2007).

6. The Department of Environmental, Earth and Geospatial Sciences has provided Geographic Information Systems (GIS) training for City of Durham employees through the Geospatial Research Institute and Training Services (GRITS) Center.

7. The Department of Environmental, Earth and Geospatial Sciences is developing a GIS certificate program. NCCU is the only university to offer provisional certification through the American Society for Photogrammetry and Remote Sensing (ASPRS).

8. The Department of Environmental, Earth and Geospatial Sciences and grassroots community organizations recently convened two Green Jobs Forums and a Green Jobs Conference to address transition to the new green economy being developed to combat climate change and its associated workforce development needs.

9. One faculty member and undergraduate student from the Department of Biology traveled to China to perform research during the summer of 2008.

10. NCCU continues to be the only HBCU in the UNC System to host the Summer Ventures in Science and Mathematics Program. In addition, CST hosts the annual Department of Energy-funded Regional Science Bowl for area high schools.

11. Biology faculty members were recently named Program Director and Co-Program Director for a four-year grant from the Howard Hughes Medical Institute. The overall goal of the grant is to improve student competitiveness for graduate and medical school.

The College of Science and Technology is a productive instructional and research unit. We aim to continue our current programs, engage in new initiatives, and expand the intellectual opportunities for our students, faculty, and staff locally, regionally, nationally, and internationally.

Prepared by Saundra F. DeLauder, Ph.D.
Sources: Annual Reports, Unit Records
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