

STATE BOARD OF COMMUNITY COLLEGES
Allocation for Competitive Sub-Orbital Unmanned Space Flight Testing

Request: The State Board is asked to approve \$228,590 in allocations to ten community colleges from the National Space Grant and Fellowship Program Grant entitled “High-Altitude Balloon Student Design Competition.”

Background: The North Carolina Space Grant (NC Space Grant), in partnership with the NC Community College System, was awarded a grant from NASA for \$499,366 in 2014 to provide competitive scholarships for community college students enrolled in STEM degree programs (specifically targeting women and underserved populations) and to promote team design challenge and competition statewide. Of the total award, \$294,101 comes to the System Office over two-plus years and is allocated to approximately 10 community colleges over the lifetime of the Grant. The remaining amount, handled by the NC Space Grant, will be awarded to students in the form of scholarships.

During 2014, the first year of the grant, a pilot was conducted to help develop team design guidelines and perfect operating procedures. Four colleges were engaged in the first year’s competition, and the pilot was successful with three of the four teams recovering their payload/balloon and 24 students receiving financial assistance through the grant. Two of the designs reached altitude of greater than 90,000 feet and were able to photograph the Earth’s curvature and take air samples from the outer stratosphere.

The culmination of the student design team challenge is a competition that will be held in late April or early May of 2016, in which design teams of the participating colleges compete against other design teams to become the NC Community College Student Design Challenge Champion.

Rationale: As directed by the grant submission to NASA, the high altitude balloon payload design competition will use available funds in the second year to engage 10 community college teams and facilitate a student competition model that simulates a real engineering design problem.

Method of Allocation: Per the Grant, each college will receive funds from the Grant sub-award. There remains \$228,590 in grant funds be allocated in full the final year. The funds will be evenly distributed among the participating colleges as shown in Table 1. Participating colleges were selected through a first come-first serve basis due to time restrictions of the grant. Funds will be distributed to each participating college in the amount of \$22,859 (\$3,000 for faculty release time, \$2,000 travel, \$11,859 supplies/materials, and \$6,000 student team member scholarships).

Allocation Amount and Time Period: The allocation of \$228,590 is for the period of November 1, 2015 through July 31, 2016.

Fund Source and Availability: These funds are available through a sub-award from the National Space Grant and Fellowship Program Grant for the period September 19, 2014 through September 18, 2016.

Contact Person:

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Table 1. College Allocations

College Name	Allocation
*Central Piedmont Community College	\$22,859
*Catawba Valley Community College	\$22,859
*Rowan-Cabarrus Community College	\$22,859
Durham Technical Community College	\$22,859
Pitt Community College	\$22,859
Randolph Community College	\$22,859
Southwestern Community College	\$22,859
Craven Community College	\$22,859
Edgecombe Community College	\$22,859
Guilford Technical Community College	\$22,859
Total	\$228,590

*Participating College 2014-2015