

To: Jennifer Troyer, Provost and Vice Chancellor for Academic Affairs, UNC Charlotte

From: Linguang Song, ETCM Chair



Topic: Degree name change from B.S. Electrical ET to B.S. Electromechanical ET

Date: November 16, 2023

Provost Troyer,

The Department of Engineering Technology and Construction Management is requesting to change the name of our Electrical Engineering Technology major. We request the following adjustment to both the major name and CIP code (which will remain a Bachelor of Science in Engineering Technology degree). The proposed change will not require the development of new courses, and it will only involve adjustment to the existing curriculum. There is no budget, personnel, or facility change involved.

FROM: Electrical Engineering Technology (CIP 15.0399)

TO: Electromechanical Engineering Technology (CIP 15.0403)

RATIONALE

The program has struggled with enrollment growth over the past decade, which is consistent with a nationwide trend. In 2022 the program completed a curriculum change to become more focused on building student expertise in control of large-scale systems. A recent crosswalk of ABET program criteria between Electrical ET and Electromechanical ET showed that the current program will map to the program criteria for Electromechanical ET with one course changing from elective to required (currently taken by 85% of students in the program). Per the ABET Accreditation Policy and Procedure manual, the program will submit a Notification of Program Changes form.

The name change is expected to yield an increase in enrollment. A nationwide analysis of Electromechanical ET programs shows that the proposed change to Electromechanical ET would yield 50% more enrollment than our current Electrical ET program. There is also a strong job market need in North Carolina with an anticipated growth of 13% over the next 10 years (3 times the national average). Mechatronics ET programs in NC community colleges, which feed into our proposed Electromechanical ET program, is now the 2nd largest ET program in NC community colleges (4 times of the Electrical ET enrollment) and has a stable enrollment trend in the past 5 years (contrary to negative enrollment trends in Electrical and Electronics ET programs). From a competition perspective, no NC institution currently offers a B.S. Electromechanical ET program. The proposed B.S. Electromechanical ET also aligns with our M.S. Applied Energy and Electromechanical Engineering program, providing a direct pathway for students to enter the graduate school.

The Electrical Engineering Technology Faculty voted unanimously to support the name and CIP code change on October 20, 2023. I also recommend the change. Thanks for your consideration.