

Academic Program Review Recommendations: 2020-21 Annual Progress Report

The purpose of the Annual Progress Report is to facilitate the tracking of progress made on program recommendations/goals and to identify and explain the addition of any new program goals not listed in the most recent Review.

1. Name of Program: Electro-Mechanical Technology

[2017-18 Renewable Energy Technology / Electro-Mechanical Technology Program Review](#)

[2018-19 update](#)

2. List goals from most recent [Program Review](#) and report on progress for each goal: 2017-18 goals

1. Apply for and receive a second National Science Foundation grant to continue to develop flipped classes in the second year of the program and to purchase state of the art equipment aligned with local industry.

Applied for second NSF ATE grant in 2018 and 2019 but failed to obtain funding. Worked with grant writers in 2020 for third attempt. As of May 2021, no formal decision has been announced however NSF ATE continues to request more information leading us to believe the grant might be funded soon.

2. In collaboration with SOAR, target market the program to incumbent works including USACE, and partner businesses such as Cardinal Glass.

USACE has formally adopted the EM-Tech program as an alternative to the USACE Power Plant Trainee apprenticeship. USACE trainees regularly attend classes. Cardinal Glass has enrolled 2 technicians in the EM-Tech program.

3. Continue with course development, consolidation and exploring offering specialized options.

The first year mechanics classes have been consolidated into 1 class. Program additionally offers technical math, industrial computing, and mechatronics classes in the first year. First year Hydraulics course expanded to include pneumatics and renamed "Fluid Power".

4. With double labs for all first year courses and some second year, consider a third full-time faculty for the program to meet instructional needs.

Chris Spengler has assumed instructional responsibilities for mechanics, digital electronics, and mechatronics. New faculty position may be required to replace retiring instructor.

5. Provide relevant faculty development opportunities.

Two faculty attended NSF ATE funded training in Texas for the Low Cost Mechatronic Trainer. One faculty attended NSF ATE funded solar training in Wisconsin. COVID prevented attendance at the Hands On Relay School.

3. List any additional goals added since the most recent Program Review, and include the rationale for each new goal:

Include a technical math class in the first year. Consult with math department to determine exact skills relevant to EM-Tech program. Streamline math skills and prerequisites for students entering the program.